## How Experience Shapes the Financial Thinking of Entrepreneurs

James Greenslade-Yeats

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### **Abstract**

The way entrepreneurs think about the financial implications of starting a new venture is a crucial aspect of the entrepreneurial process. Scholars describe two contrasting views of this thinking process. The more traditional view, 'causation,' holds that entrepreneurs think *predictively* about financial outcomes, engaging in financial forecasting and calculating a venture's expected returns. The more recent view, 'effectuation,' suggests founders think about financing in terms of *what they can control*. In practice this means they only invest what they can afford to lose in new ventures and seek partners to provide additional finance. Existing empirical research shows that novice entrepreneurs tend to follow a causation process, while experienced entrepreneurs are more likely to engage in effectuation. Although it is clear that the key characteristic leading to differences in financial thinking is *experience level*, no one has accounted for *how* experience leads to such differences. My research question was therefore: 'How does experience of multiple venture start-ups affect the way entrepreneurs think about the financial implications of founding subsequent ventures?'

To address this question I implemented a qualitative, narrative inquiry research design. Such a design is ideal for surfacing and understanding participants' lived experience and is recommended for entrepreneurship research. I collected primary data through participant interviews with experienced entrepreneurs and applied inductive data analysis techniques to surface themes. My study produced two key findings. First, entrepreneurs changed their approach to financial thinking over time, generally from a predictive/causation approach to a control-based/effectuation approach. Second, findings surfaced a *process* mechanism that brought about these changes: negative/unexpected outcomes caused entrepreneurs to reflect upon and change their

financial thinking about venture start-ups. I discuss implications of findings for the wider entrepreneurship literature, suggesting that future research investigate 'experience of negative/unexpected outcomes' as an antecedent to effectuation.

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## **Attestation of Authorship**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

James Greenslade-Yeats



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## **Chapter 1: Introduction**

In recent decades, entrepreneurship has been recognised as a major force in the global economy (Carvahlo, 2015; Chandler et al, 2011; Frederick & Monsen, 2011; Sarasvathy, 2001). As nation-states around the world become more market-oriented, governments see entrepreneurship as increasingly important, both as a means of allocating resources and as a driver of economic growth (Carvahlo, 2015; Frederick & Monsen, 2011). This makes understanding entrepreneurship's role in society imperative, and has led to a growing interest in the phenomenon as a field of academic research (Shane & Venkataram, 2000). Simply put, entrepreneurship research aims to study how new ventures are created (Alvarez et al, 2005). One of the key ways it does this is by exploring the behaviour of entrepreneurs at the individual level (Chandler et al, 2011; Fisher, 2012; Sarasvathy, 2001, 2008). My study investigates one specific aspect of such individual behaviour: how entrepreneurs think about the financial implications of starting new ventures.

If entrepreneurship is integral to the global economy, then financing new ventures is integral to entrepreneurship. Research suggests that under-capitalization and lack of cash flow are amongst the principal reasons for new ventures failing (Artinger & Powell, 2016; Khelil, 2016; Ritzholtz, 2012; Shane, 2009, 2012). In fact, entrepreneurial failure has been *defined* as a firm being unable to generate sufficient funds to cover running costs (Khelil, 2016; Shepherd, 2003). Freeman (2013) highlights this point by comparing finance in business ventures to red blood cells in the human body: while the body's purpose may not be to make such cells, it certainly needs them to stay alive. Likewise, making money might not be the primary *purpose* of most

businesses, but it *is* what keeps them running. This suggests that the financial viability of a business idea or opportunity should be a prime consideration for any entrepreneur (Artinger & Powell, 2016; Campbell, 1992; Dew et al, 2009a; Eisenahuer, 1995; Shepherd, 2003).

It should come as no surprise, then, that scholars have investigated the way entrepreneurs think about the financial implications of starting new ventures (Campbell, 1992; Dew et al, 2009a, 2009b; Eisenhauer, 1995; Sarasvathy, 2008; Stull, 2015 Wiltbank et al, 2009). One important implication of this research is that there is a strong relationship between an entrepreneur's financial thinking and the overall 'entrepreneurial process' s/he follows when setting up a business (Dew et al, 2009a, 2009b; Sarasvathy, 2008; Wiltbank et al, 2009). Two principle entrepreneurial process theories have been investigated in the literature: causation and effectuation (Agogué et al, 2015; Arend et al, 2015; Chandler et al, 2011; Corner & Ho, 2010; Dew et al, 2009a, 2009b; Fisher, 2012; Guo et al, 2016; Read et al, 2009; Wiltbank et al, 2009). Chapter 2 reviews this research and, in particular, clarifies the important relationship between financial thinking and entrepreneurial process (Dew et al, 2009a, 2009b; Sarasvathy, 2008; Wiltbank et al, 2009).

Significantly, researchers have found that experienced and novice entrepreneurs think about the financial implications of starting a new venture differently (Dew et al, 2009a, 2009b; Fisher, 2012; Sarasvathy, 2008; Wiltbank et al, 2009). Such a finding suggests that experience plays a crucial role in shaping an entrepreneur's financial thinking (Baron, 2009). To date, however, no one has investigated how this shaping takes place over time. The studies that have noted the experienced-novice differences (Sarasvthy, 2008; Dew et al, 2009b) have done so by recording how research subjects think through the financial implications of starting a new venture *at one point in time*.

While such an approach is effective in establishing differences in thinking, it does not allow for explanations of *how differences come to exist*.

My study aims to contribute to the literature by empirically investigating how entrepreneurs' financial thinking evolves over time. Formally stated, my research question is: 'How does experience of multiple venture start-ups affect the way entrepreneurs think about the financial implications of founding subsequent **ventures?** To address this question I adopt a qualitative, narrative inquiry research design, which has been recommended by entrepreneurship researchers as being particularly appropriate for investigating the way processes unfold over time (Endres & Woods, 2007; Singh et al, 2015; Venkataram et al, 2013). By collecting rich data from practicing entrepreneurs with differing levels of experience, I will be well-positioned to induce findings that may be of interest to practicing entrepreneurs and academics alike. In an entrepreneurial economy such as New Zealand's, it is essential to understand how new ventures are created (Frederick & Monsen, 2011); and, as argued above, finance and financial thinking are crucial components of the venture creation process. Furthermore, scholars have called for more research into the financial thinking of entrepreneurs (e.g. Dew et al, 2009a), while others have made a case that it is important to understand how experience affects such thinking (e.g. Baron, 2009; Dew et al, 2009b).

The purpose of my study is therefore to examine empirically how experience affects entrepreneurs' financial thinking. As such, it makes two contributions to the entrepreneurship literature. First, it offers insight into the financial thinking of entrepreneurs and, in particular, the way this changes over time. Second, it explores the process through which such changes in financial thinking occur, highlighting the important role of *experience* in determining the way entrepreneurs think about the financial implications of starting new ventures. In these ways the study adds to an

ongoing conversation in the entrepreneurship literature – one that should be of interest to not only academic researchers but to policy-makers, business leaders, start-up incubators and the public more generally.

The following chapter introduces the reader to this conversation in more depth by reviewing existing literature. Chapter 3 describes the research design and methods used to examine the research question. Chapter 4 summarises findings, while Chapter 5 discusses the major findings and their implications for the wider entrepreneurship literature. The final chapter also notes limitations of the study and directions for future research.

## **Chapter 2: Literature Review**

The aim of this dissertation is to address the question, 'How does experience of multiple venture start-ups affect the way entrepreneurs think about the financial implications of founding subsequent ventures?' To understand why this question is important to the study of entrepreneurship, however, it is first necessary to situate it within the relevant academic literature. That is what I do in this chapter. I start by describing the two dominant process theories in entrepreneurship research: causation and effectuation. Each of these theories presents a contrasting view of the *process* entrepreneurs follow when setting up new ventures. One aspect of this process is the way entrepreneurs think about the financial implications of starting new ventures. In the following sub-sections I introduce two contrasting views on the question of entrepreneurs' financial thinking – the 'causation view' and the 'effectuation view' – and review existing research on each. In particular, I point to empirical findings suggesting that an entrepreneur's experience level plays a decisive role in determining how s/he thinks about the financial implications of starting new ventures. Finally I note that, to date, no one has investigated how experience shapes entrepreneurs' financial thinking, thus highlighting the research gap my study aims to fill.

### **Process theories of entrepreneurship**

In her seminal article, Sarasvathy (2001) introduced the idea that entrepreneurs follow one of two generalised processes when starting a new venture. She dubbed them 'causation' and 'effectuation,' and provided the following definition: 'Causation

processes take a particular effect as given and focus on selecting between means to create that effect. Effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means' (2001, p. 245). To illustrate her definition, she offered the analogy of two people cooking dinner, each following a different process. The first person, following a **causation** process, would start by deciding exactly what she wanted to cook, or the 'effect' she wanted to achieve. She would write this down in the form of a menu and then go out to gather all the ingredients and equipment – analogous to the 'means' in Sarasvathy's definition – needed to create the meal. This may involve a trip to the supermarket to buy the meat and vegetables, another to a specialty food-store to find a particular spice, and yet another to the neighbour's place to borrow a fancy piece of kitchen equipment.

Someone following an **effectuation** process, on the other hand, would start with no pre-conceived idea of the final dish, but would simply open the fridge, see half a tin of tomatoes, a packet of mince and some eggs, and decide to make, say, a bolognaise sauce to serve with fresh pasta. In other words, the effectuation cook would allow the ingredients he had at hand (or the means at his disposal) to generate ideas about what to make for dinner (or the effect he wanted to achieve). It might so happen that, having already set the bolognaise sauce simmering on the stovetop, he would go to the cupboard where his pasta roller was usually kept, only to recall that he had lent it to his neighbour. This missing piece of equipment is what Sarasvathy (2001, 2008) would label a contingency. Rather than be stymied by the pasta-roller set-back, however, the effectuation cook would simply take another look in the cupboard to see what else he might serve with the bolognaise, spot a packet of rice, and decide that this would offer a fine alternative to the hand-made tagliatelle he had initially thought of as a match for his sauce.

Sarasvathy (2001) argued that the latter approach to making decisions (effectuation) can be applied to realms of human endeavour beyond merely cooking dinner. The formation of entrepreneurial ventures, she proposed, was a prime example. She thus offered effectuation theory as a viable alternative to the 'traditional' causation theory of entrepreneurial process taught in business schools and on MBA programmes around the world. She also made a case that many entrepreneurial success stories show evidence of an effectuation process having been followed, citing the American removals company U-Haul and the global coffee franchise Starbucks as prime examples (Sarasvathy, 2001). Since the publication of her original article (Sarasvathy, 2001), a substantial body of research has grown up around the idea of process being at the heart of the way entrepreneurship unfolds. Numerous authors (herself included) have attempted to build-on, clarify, advance or dispute her work, whether through empirical exploration/testing (Agogué et al, 2015; Arend et al, 2015; Chandler et al, 2011; Corner & Ho, 2010; Dew et al, 2009b; Fisher, 2012; Guo et al, 2016; Read et al, 2009; Wiltbank et al, 2009) or the refinement of theoretical models (Fisher, 2012; Sarasvathy, 2008). With reference to this (and other) research, the following sub-sections provide a more in-depth review of literature on the two dominant process theories of entrepreneurship.

#### **Causation**

Due to its origins in the economics discipline, causation is also known as the 'rational/economic perspective' (Chandler et al, 2011; Corner & Ho, 2010; Fisher, 2012). As mentioned above, it is regarded as the 'traditional' approach to the study of entrepreneurship and is the one implicitly propagated in many textbooks on the subject (e.g. Allen, 2003; Foss & Klein, 2005; Kirzner, 1979; Kurtako & Hodgetts, 2004;

Sautet, 2002). As a theory, causation explains how the process of entrepreneurship unfolds and how entrepreneurs decide whether opportunities for new ventures are worth pursuing (Chandler et al 2011; Corner & Ho, 2010; Fisher 2012; Sarasvathy, 2001, 2008). An entrepreneur following this process starts by identifying an opportunity (e.g. an unmet demand for a product/service in a particular market, or an innovation that shows commercial promise), evaluates it, and then forms a plan to exploit it (Chandler et al, 2011; Guo et al, 2016; Sarasvathy, 2001, 2008; Shane & Venkataram, 2000). Because causation holds that the future is to a significant extent predictable (Sarasvathy, 2008), the theory emphasizes research and analysis aimed at selecting between options, both in terms of the venture to be created (the end goal) and the way of creating it (the means to achieve that goal) (Chandler et al., 2011; Fisher, 2012; Sarsvathy, 2001, 2008). In concrete terms, selecting an 'end goal' may entail conducting market research to ensure that the chosen option will adequately cater to demand (or that there will be adequate demand to cater to) (Casson, 2003), while selecting 'between means' might involve, for example, obtaining quotes from a large number of potential suppliers in order to secure the best price for a material needed to achieve the end goal (Chandler et al, 2011; Fisher, 2012).

Researching and analysing various options to exploit an opportunity provides the entrepreneur with the information necessary to draft a detailed business plan. This document – like the menu of the cook in the causation example above – then becomes the blueprint for achieving the entrepreneur's end goal (of creating the selected venture). And in the same way as the causation cook had to visit the supermarket, the specialty food-store and her neighbour's place to obtain everything she needed to reproduce her dinner menu, executing the business plan requires the entrepreneur to assemble a variety of specific resources such as capital, specialised equipment, and staff

with particular skills and knowledge (Chandler et al, 2011; Corner & Ho, 2010; Fisher, 2012; Sarasvathy, 2001, 2008).

Importantly, this process of opportunity-identification, selection, planning and execution relies on two key assumptions: firstly, that - as described above - human domains such as the business world act in *predictable* ways (Sarasvathy, 2001, 2008); and secondly, that entrepreneurial opportunities exist independently of entrepreneurs (Alvarez & Barney, 2007; Chandler et al, 2011; Fisher, 2012; Sarasvathy & Dew, 2005). This second assumption is deeply embedded in the rational/economic perspective of entrepreneurship (Kirzner, 1979; Kotler, 1991; Miller, 2007; Sarasvathy et al, 2003). According to this perspective, entrepreneurial opportunities arise exogenously - i.e. they come about because of events and circumstances beyond the entrepreneur's control (e.g. changing consumer tastes, technological trends, or economic cycles) (Alvarez & Barney, 2007; Chandler et al, 2011; Corner & Ho, 2010; Dew et al, 2009a; Fisher, 2012). Shane and Venkataram (2000) express this assumption by describing entrepreneurial opportunities as things that are necessarily discovered, while Alvarez and Barney (2007) use an anecdotal parallel from mountain climbing to illustrate the idea. When asked why he had climbed Mount Everest, the mountaineer George Mallory supposedly responded, 'Because it is there.' What he meant was that he had nothing to do with it getting there; the world's highest mountain was the result of geological processes beyond his control. Likewise, the *opportunity discovery* view (Alvarez & Barney, 2007) holds that an entrepreneur has no control over when or how opportunities arise, but is able to discover, evaluate and exploit them simply because 'they are there.'

It is easy to see how such a view justifies a causation process in founding new ventures. If opportunities pre-exist (in the form of markets for products and services, for example), then it is possible for an entrepreneur to not only identify but also evaluate them through the kind of research and analysis described above. A number of authors,

however, have argued that not all entrepreneurial opportunities are like mountains (Alvarez & Barney, 2007; Dew et al, 2009a; Miller, 2007; Read et al, 2009; Sarasvathy & Dew, 2005). That is to say, they are not just 'there' waiting to be discovered, but instead must be *created* through the entrepreneur's own interactions with potential customers, partners, suppliers and so on. In this view, entrepreneurs are not merely mountain climbers; they are mountain builders (Alvarez & Barney, 2007). And building a mountain is a much more complex task than simply following a route to the top of one. It requires an entirely different process. Effectuation has been proposed as a process whereby entrepreneurs can 'build mountains' and deal with the complexity such a task entails.

#### **Effectuation**

Recall from the example above that the cook following the effectuation process did not start with a particular dish in mind but used the ingredients he had at hand to help generate ideas about what to make for dinner. Also recall that when he remembered lending his pasta-roller to his neighbour he did not see it as a significant set-back; rather, he simply changed his idea – his end goal - to accommodate the change in circumstances. These points demonstrate two of the key principles of effectuation. Firstly, entrepreneurs following an effectuation process do not start by searching for and identifying external opportunities but by identifying the means they have at hand and using these to generate ideas about the kind of business they might found (Fisher, 2012; Sarasvathy, 2001, 2008). Sarasvathy (2001) suggests that in order to identify their personal means entrepreneurs ask themselves a series of questions - 'Who am I? Who do I know? And what do I know?' – and that the answers to these question in turn become the starting point for their ideas regarding new ventures. (Chandler et al, 2011;

Dew et al, 2009a; Fisher, 2012; Guo et al, 2016; Read et al, 2009; Sarasvathy, 2001, 2008; Sarasvathy & Dew, 2005). Secondly, effectuating entrepreneurs do not form detailed plans about how they will turn their idea/s into a workable venture. Instead, they begin with a loose idea of the direction they will take and leverage contingencies such as changes in circumstances or unexpected successes along the way (Corner & Ho, 2010; Sarasvathy, 2001, 2008).

Sarasvathy (2001) makes these points tangible with the example of a budding entrepreneur who happens to be an Indian woman living in the United States. The woman has a general aspiration to start a business, but is not quite sure what form it will take. To come up with ideas she asks herself the questions 'Who am I? Who do I know? And what do I know?' and determines that her identity as an Indian migrant ('Who am I?') may be a good starting point. She has always loved cooking ('What do I know?'), so decides that she will begin working towards founding some kind of Indian fast food business. One evening she brings together some friends and acquaintances to test out potential dishes for her menu. In the course of discussing Indian culinary traditions, however, she discovers that her guests in fact show a greater interest in knowing more about Indian culture than in seeing another ethnic restaurant established in the neighbourhood. With her flexible effectuation mind-set, the woman decides to leverage this unexpected interest and transform her idea about a fast food restaurant into one based on giving talks about India's rich culinary heritage to paying audiences. Not only has she used the resources freely available to her (i.e. her identity, knowledge of Indian cooking and culture, and friends) as the starting point for a venture; she has also used feedback from her peers to transform her idea in a contingent manner (Sarasvathy, 2001).

Another key component of effectuation embedded in this example is the notion that effectuating entrepreneurs discuss and share their ideas with those around them. It

is through this process of social interaction that they gain commitments from people they know, converting them into partners who can provide the resources needed to transform an idea into a real business opportunity (Fisher, 2012; Read et al, 2009; Sarasvathy, 2001, 2008; Sarasvathy & Dew, 2005). For example, one of the Indian woman's friends might own some under-utilised public-speaking equipment — microphones and amplifiers — and propose lending it to her in return for becoming a partner in the business. This would be an example of 'co-creation' of a goal or product. Co-creation is one of the key components of the effectuation process (Sarasvathy & Dew, 2005). It is co-creation that explains the behaviour of effectuating entrepreneurs towards would-be competitors. Rather than take an adversarial position towards those with interests in the same industry, effectuating entrepreneurs see such people as potential business partners or allies, whose knowledge and resources may be leveraged to create win-win situations (Sarasvathy, 2001, 2008; Sarasvathy & Dew, 2005).

The effectuation principles detailed above make sense in light of Sarasvathy's description of the underlying logic of the process: 'To the extent we can control the future, we do not need to predict it' (2008, p.17). If causation is about analysing the current environment to predict how a pre-defined venture (which is itself a response to a pre-existing opportunity) will fare, effectuation is about *exerting control over what is controllable* (e.g. social/business relationships, resources at hand, contingent decisions) in order to *shape* – not predict - the future (Chandler et al, 2011; Dew et al, 2009b, 2015; Sarasvathy, 2001, 2008).

Compared to causation, effectuation is a relatively 'new' theory in the literature (Chandler et al, 2011; Corner & Ho, 2010; Fisher, 2012). Since Sarasvathy initially proposed it as an alternative to the traditional causation approach, however, a great deal of research has gone into developing and advancing it as a theory of entrepreneurship (Arend et al, 2015; Agogué et al, 2016; Brettel et al, 2012; Chandler et al, 2011; Dew et

al, 2009b, 2015; Evald & Senderovitz, 2013; Fisher, 2012; Guo et al, 2015; Read et al, 2009; Sarasvathy, 2008; Werhahn et al, 2015; Wiltbank et al, 2009). This research has investigated subjects ranging from how effectuation can be applied in different business contexts (Agogué et al, 2016; Brettel et al, 2012; Evald & Senderovitz, 2013; Guo et al, 2015; Werhahn et al, 2015), to how it can be differentiated in behavioural terms from causation (Chandler et al, 2011; Fisher, 2012), to whether its application has an influence on new venture performance (Read et al, 2009) and if mastery of the process can be considered a form of 'entrepreneurial expertise' (Dew et al, 2009b, 2015; Sarasvathy, 2008).

A final point is important for understanding the theory's place in the literature. Much of the empirical research that went into developing effectuation was conducted on so-called 'expert' entrepreneurs (Sarasvathy, 2008; Dew et al, 2009b, 2015). According to this research, expertise in a particular area (such as entrepreneurship) is developed through repeated *experience* in that area (Dew et al, 2009b). This is an important point to remember given the research question this study seeks to address - How does experience of multiple venture start-ups affect the way entrepreneurs think about the financial implication of starting subsequent ventures? I will return to this issue below in the section on 'affordable loss.' But first I review what the literature has to say about entrepreneurs' financial thinking when starting a new venture.

## The financial implications of starting a new venture: Contrasting views

So far the focus of this chapter has been on the different theoretical perspectives that explain the process followed by entrepreneurs starting new ventures. This section will

narrow in on a specific aspect of this overall process: how entrepreneurs think about the financial implications of starting a new venture. The causation and effectuation theories outlined above hold different views on this issue. The following section outlines these views and reviews findings from existing empirical research.

#### The causation view: Expected returns

According to causation, an entrepreneur's decision to start a new venture is based on favourable calculations of 'expected returns,' where 'returns' are defined as the amount s/he can expect to gain once initial investments have been recouped (Campbell, 1992). To understand how the causation view makes such calculations possible, it is necessary to recall one of the theory's key assumptions: that opportunities exist independently of the entrepreneur (Alvarez & Barney, 2007; Sarasvathy, 2008; Shane & Venkataram, 2000). This means that when an entrepreneur launches a new venture, all of her/his potential customers are already 'out there,' just waiting to be found. Given such a scenario, it is possible for the entrepreneur to obtain detailed information (by way of research and analysis) about the market for her/his new product/service, including its potential size and the prices customers will likely accept (Sarasvathy, 2008). This information may then be used to forecast revenue, from which start-up/ongoing costs (as well as the 'lost opportunity costs' of abandoning paid employment, in certain cases) are to be subtracted, giving a calculation of expected returns (Campbell, 1992; Eisenhauer, 1995). Thus an entrepreneur is able to decide whether or not to pursue a given venture based on its expected returns.

This is the approach taught in classic marketing textbooks such as Kotler (1991).

A number of authors (Campbell, 1992; Eisenehauer, 1995; Stull, 2014) have used it as their guide when developing models of how entrepreneurs decide to 'take the plunge,'

or start a new venture. While some (e.g. Stull, 2014) take into account other, more qualitative factors in their decision-models - such as the independence afforded by being one's own boss - the general message is that entrepreneurs start new ventures because they believe doing so will make them better off financially than before. Significantly, however, *empirical* research into the matter has found that the 'expected returns' approach is most often adopted by novice entrepreneurs (Dew et al, 2009b; Sarasvathy, 2008) or those with a management background (Read et al, 2009a). 'Expert' entrepreneurs, or those with considerable experience in founding their own ventures, tend to employ a different approach. This approach is known as 'affordable loss' (Sarasvathy, 2008) and is presented in the next section.

#### The effectuation view: Affordable loss

To understand the effectuation view of how entrepreneurs think about the financial implications of starting new ventures, it is necessary to recall that the effectuation process is about controlling an unpredictable future. Financially speaking, the only thing that an entrepreneur can control when starting a new venture is the amount of money s/he invests. The returns the venture might generate are beyond his/her control and therefore do not factor into his/her thinking. Knowing how mercurial the business world can be, then, the effectuating entrepreneur remains in control of his/her actions by only investing what s/he *can afford to lose* in a new venture.

This 'affordable loss heuristic' is said to be one of the key characteristics of the effectuation theory of entrepreneurship (Chandler et al, 2011; Corner & Ho, 2010; Dew et al, 2009a; Fisher, 2012; Read et al, 2009a; Sarasvathy, 2001, 2008). Dew, Sarasvathy, Read and Wiltbank (2009a) have used insights from behavioural economics to build a theoretical basis for its use in making the 'plunge decision', while other studies have

found empirical evidence that it is widely applied as part of the effectuation process (Dew et al, 2009b; Fisher, 2012; Sarasvathy, 2008). Sarasvathy (2008), for example, in a study of 27 expert entrepreneurs who were asked to 'think aloud' while working through a series of problems related to launching an imaginary venture, found that none of her subjects

tried to garner specific information about potential returns or to predict an ideal level of investment for their projects. Instead they wanted to spend only what they could afford to lose. Twenty-three of the 27 subjects (85 percent) expressed concerns over money and insisted on trying to not to spend any money in taking the product to market or to keep within the initial imaginary endowment of approximately \$30 000. The seven extreme effectuators did not want to spend any money at all. They wanted to take the product to market with zero resources spent on market research or other pre-selling activities. (p.34)

Other research (Dew et al, 2009b; Wiltbank et al, 2009) further supports this finding.

Dew, Sarasvathy, Read, and Wiltbank (2009b) investigated the use of causation versus effectuation in another sample of experts - which they compared with a control group of novices (MBA students) - and found that the experts applied the affordable loss heuristic while the novices tended to think much more in terms of expected returns.

Wiltbank, Read, Dew, and Sarasvathy (2009) also explored the use of causation versus effectuation in the realm of 'angel investing'. They found that investors who thought in terms of expected returns made larger investments than those who used affordable loss thinking. More significantly, investors applying the affordable loss heuristic were found to experience a proportionally greater number of successes than the expected returns group.

One might infer from reported findings that while there is no one-size-fits-all way for entrepreneurs to think about the financial implications of starting a new venture, there *is* considerable evidence that experienced or so-called 'expert' entrepreneurs think

more in terms of affordable loss (Dew et al, 2009b; Sarasvathy, 2008; Wiltbank et al, 2009). However, to my knowledge, no one has investigated how experience affects entrepreneurs' financial thinking. As mentioned above, the studies that have noted the experienced-novice differences (Dew et al, 2009b; Sarasvathy, 2008) have done so by recording how research subjects think about the financial implications of a starting a new venture at the time of data collection. While this approach has the advantage of avoiding retrospective bias (Sarasvathy, 2008), it cannot account for evolution in the financial thinking of entrepreneurs over time. Furthermore, the cited studies (Dew et al, 2009b; Sarasvathy, 2008) presented subjects with stark, often binary choices, wherein they had to select between a given set of options. The researchers then categorised their choices as indicating either an expected returns or an affordable loss way of thinking. As Sarasvathy (2008) notes, in the real world the decisions entrepreneurs make are almost never are clear-cut as the findings of her research imply. The way an entrepreneur thinks about the financial implications of his/her actions will depend on a wide variety of factors, including stage in the venture's life cycle, previous experience, personal tendencies and so on (Sarasvathy, 2008). In saying that, there was a marked difference in terms of financial thinking between those with high levels of experience and those with none to very little (Dew et al, 2009b; Sarasvathy, 2008).

All of this suggests that there is little academic knowledge of *how* experience affects the financial thinking of entrepreneurs over time. The aim of my study is therefore to explore this 'how' question, which I have formally stated as: 'How does experience of multiple venture start-ups affect the way entrepreneurs think about the financial implications of founding subsequent ventures?' In the following chapter I describe my qualitative, narrative inquiry research design and show how it has allowed me to explore this under-researched area in the literature.

## **Chapter 3: Research Methods**

## **Research Design**

To address my research question I implemented a qualitative, narrative inquiry research design (Creswell, 2013; Elliot, 2005). The essence of narrative inquiry is to collect and analyse data about a sequential series of events (or story) (Creswell, 2013; Gray, 2014). Such an approach has been recommended by a number of entrepreneurship scholars as being pertinent for studies that examine how processes unfold over time (Endres & Woods, 2007; Singh et al, 2015; Venkataram et al, 2013). This design provided a strong temporal dimension, which was appropriate for investigating the way entrepreneurs' financial thinking evolved with experience. Furthermore, the design enabled the collection of rich accounts of lived experience, providing the 'thick descriptions' of qualitative data (Thorne, 2008). The overall research design dictated the nature of the sample, data collection methods, and data analysis. Each of these is described below.

### Sample

I employed a 'purposive sampling' technique, which involved sampling participants who could provide rich information relevant to my specific research question (Gray, 2014; Patton, 1990). I developed three criteria to ensure that participants would be appropriate for my study. First, participants had to have founded at least two business ventures. This criteria ensured I had participants with experience of multiple venture start-ups and was likely to surface insights regarding how experience affected financial thinking. Second, participants had to be aged between 30 and 49. I established this age

range because research shows that a person's age has a significant influence on the way they respond to financial risks (Axelrad, Luski & Malul, 2016). In particular, older individuals require a larger financial incentive to leave the security of paid employment (as is often the case when entrepreneurs decide to start a new venture) than younger individuals (Axelrad et al, 2016). Third, participants had to consider activities related to their venture/s to be their primary occupation. This criterion was necessary because it was important to have entrepreneurs who did not see their ventures as mere 'hobbies.' The justification for this was that my study looked at the financial implications of starting new ventures; and, as noted by Stull (2014), the way entrepreneurs think about this matter will depend on whether or not their venture provides their main source of income.

Having established my sample selection criteria, I obtained ethics approval for my project (Application number: 16/72; see Appendix A) and started to recruit participants. I did so by searching online public sources such as company websites and entrepreneurship awards pages. I also asked family and friends for the names of anyone they knew who might be eligible to participate. I then sent potential participants an invitational email with a participant information sheet attached, informing them what the study was about and asking whether they would be interested in participating. The sample selection criteria were included in the participant information sheet as a way of verifying that those who responded were indeed eligible for participation. In this way I found a sample of four entrepreneurs whose experience levels and age made them appropriate to participate in my study. The table below (Table 1) describes the entrepreneurs who took part in the study.

Table 1: Description of Participants

Name & Age	Background/Education	Focus of most recent venture	Number of ventures founded (including most recent venture)	Number of partners in most recent venture
Tom,	No formal business	Selling local	7	2
42	education	produce		
John,	Studied finance and	Electricity	2	1
33	entrepreneurial	retail		
	management at tertiary			
	level; worked as trader			
	between first and second			
	ventures			
David,	Studied finance and	Childcare	4	0
37	accounting at tertiary	centre		
	level; worked as			
	accountant before			
	starting first venture			
Mark,	No formal business	Video game	6	1
39	education; worked as	design		
	manager in family-			
	owned business between			
	first and second ventures			

### **Data Collection**

I collected both primary and secondary data for the study. Primary data were collected through semi-structured, one-on-one participant interviews, conducted via skype. As Elliot (2005) notes, interviews are recognised as the preferred method of data collection in narrative-based research because they provide an opportunity for the researcher to listen to participants' stories in-depth. The one-on-one setting creates a sense of intimacy wherein the participant feels comfortable sharing information that might be withheld in a group (Elliot, 2005; Gray, 2014). Furthermore, semi-structured interviews allow the researcher to delve into stories of relevant experiences while at the same time

keeping the interview on track and maintaining a level of consistency across the sample (Gray, 2014). Interview questions are provided in Appendix B. These were supplemented, if necessary, with on-the-spot prompts (Gray, 2014). Questions were designed to elicit data relevant to the research question but without guiding participants towards particular answers (Gray, 2014). Each interview lasted between 45 minutes and one hour. I recorded the interviews on my mobile phone and transcribed them myself.

Secondary data were collected from public sources such as company websites and biographies on entrepreneurship awards pages. The purpose of collecting secondary data was to verify the chronology of the accounts participants gave as primary data.

### **Data Analysis**

Data was analysed inductively, in line with the technique described by Singh, Corner and Pavlovich (2015). The two major stages in this process were 'coding' and 'themeing.' The coding stage involved a further two steps of its own: 'open coding' and 'expanded coding.'

I started data analysis by applying six 'open codes' to my data. 'Open coding' is often seen as the first level of abstraction in inductive analysis (Gray, 2014; Singh et al, 2015). It allows the researcher to exclude any irrelevant data and to bracket relevant data into manageable categories (Gray, 2014). The open codes for my study were: 'effectuation financial thinking,' 'causation financial thinking,' 'funding strategies,' 'experience of financial outcomes,' 'reflection on experience,' and 'issues related to experience.' Two things shaped these open codes. The first was the literature regarding how entrepreneurs might think about the financial implications of starting new ventures. The second was my research question; codes were designed to identify data that was relevant to this question. Having drafted my open codes, I applied them to my

transcripts with colour-coded highlighters. Once relevant data was broken down into manageable categories, I moved on to expanded coding.

'Expanded coding' is widely accepted as the second level of abstraction in inductive analysis (Gray, 2014; Singh et al, 2015). Here the researcher reviews the open codes with the intention of breaking the data they contain into an expanded number of more specific or 'fine-grained' codes (Gray, 2014; Singh et al, 2015). As an example of how I implemented this process in my own analysis, I started with all the data coded 'effectual financial thinking' and then broke this broad concept into a number of finer codes: 'a partnering approach to investment,' 'not relying on predictions of financial outcomes,' 'affordable loss-based investments,' 'means determining ends,' 'a flexible mind-set.' This was a somewhat 'messy' process that revealed many overlaps between my open codes. However, it allowed me to further abstract the rich detail of my data, making it ready for the next stage of analysis. I also made margin notes during expanded coding. These notes pertained to possible constructs, relationships and even themes that were emerging.

'Theme-ing' was the final stage in analysing my data. During this stage I rereviewed my data to find relationships and patterns that occurred not just in isolated
fragments but across the entire data set (Singh et al, 2015). Due to my narrative
approach to analysis, I was particularly interested in finding patterns of a sequential or
chronological nature (Elliot, 2005). For example, it emerged that a number of my
participants had relied heavily on financial forecasting in their early ventures, only to
find that such forecasts were often upset by unforeseen events. This in turn led them to
the realisation that predicting financial outcomes was an unreliable way of ensuring that
a venture would remain financially viable. The way they thought about the financial
implications of venture founding changed accordingly when it came to starting their
next venture. The key to this example is that it reveals a pattern that occurs not only

across the data set but *over time* in each of the participants' overall narratives. The most significant patterns that emerged from my data are described in the following chapter.

## **Chapter 4: Findings**

How does experience of multiple venture start-ups affect the way entrepreneurs think about the financial implications of founding subsequent ventures? Findings reveal that entrepreneurs' financial thinking evolves over the course of three key 'episodes': 'founding initial venture, 'experiencing outcomes,' and 'founding subsequent ventures.' A number of 'themes' emerge from the data during each of these episodes. Taken together, these episodes and themes explain how experience affects the way entrepreneurs think about the financial implications of starting new ventures.

It is important to note that reducing findings to three episodes – summarised as Figure 1 below - simplifies them for purposes of clarity. Doing so possibly creates the impression that all changes in financial thinking took place between entrepreneurs' first and second ventures. In reality, participants' narratives were much 'messier.' The majority of participants had founded multiple (four or more) ventures and their narratives covered this entire entrepreneurial career. The words 'initial' and 'subsequent' (as opposed to 'first' and 'second') have therefore been used to show that, in most cases, it was usually after they had started several ventures that entrepreneurs experienced the negative/unexpected outcomes that brought about substantive changes in their financial thinking.

Figure 1: Three episodes in financial thinking and associated themes/patterns

#### 1. Founding Initial Venture

#### Themes/Patterns:

- Financial thinking shaped by education/life circumstances/personal financial position
- Tendency for predictive financial thinking

#### 2. Experiencing Outcomes

#### Themes/Patterns:

- Outcomes experienced as positive or negative (or mixed)
- Outcomes either predicted or unexpected
- Outcomes lead to reflection on financial thinking at time of founding initial venture
- Positive/predicted outcomes reinforce previous approach
- Negative/unexpected outcomes force reassessment of initial thinking

## 3. Founding Subsequent Ventures

#### Themes/Patterns:

- Positive/expected outcomes lead to little change in financial thinking—e.g. continued reliance on predictive thinking
- Negative/unexpected outcomes lead to changes in financial thinking – e.g. shift from predictive thinking to control-based thinking

## **Episode 1: Founding initial venture**

Episode 1 involved entrepreneurs starting their first ventures and applying their initial approach to financial thinking. Two major themes emerged from the data related to this episode: 1) a variety of factors shaped entrepreneurs' initial financial thinking and 2) there was an overall predilection for 'predictive' financial thinking, consistent with the causation approach to entrepreneurship reviewed in Chapter 2.

### Factors that shaped entrepreneurs' initial financial thinking

A number of factors shaped the way entrepreneurs thought about the financial implications of starting their initial ventures. These included education, life circumstances and personal financial position at the time. The data revealed that, where applicable, a finance-related education trumped life circumstances and financial position as the decisive factor in shaping entrepreneurs' initial financial thinking. Two participants – David and John – had majored in finance at university and both applied the financial principles they learnt there to their initial ventures. David, whose first

venture was a childcare centre, said that when it came to financial matters he was 'pretty hard out' and 'did everything by the book.' This meant that he conducted significant market research to gauge demand for childcare services in his centre's proposed location, as well as undertaking in-depth financial forecasting that allowed him to obtain start-up finance from a bank. John's initial venture – producing sailing rigs – started small but he nevertheless applied principles he had learnt through courses in finance and entrepreneurial management to calculate its earning potential.

Neither Mark nor Tom – the two other entrepreneurs in the sample - had studied finance prior to starting their initial ventures, so it was life circumstances and their financial position at the time that shaped their financial thinking. The idea for Mark's initial venture – producing leavers' jerseys for high school students – came about when he realised that this process, as it was carried out at the time, could be stream-lined significantly. His family was in the apparel industry, so he used personal connections to lower the cost at which the jerseys were produced. While he did not undertake complex calculations or financial modelling before starting the venture, he believed that he could 'improve the margins' on the jerseys and was therefore motivated by a desire to 'spin a good dime' from the venture. Tom said that he started his initial venture – retailing artisanal soaps - without any real finance behind him. This led to an approach where he 'never really thought about capital much.' Instead he focussed on minimising costs by 'doing everything himself' until he had 'created a product to sell on a very small scale,' after which he used a 'partnering approach' to expand the business.

### 'Predictive'/Causation financial thinking

There was an overall tendency for entrepreneurs to think predictively about the financial implications of starting their initial ventures, as one would expect given findings that

first-time entrepreneurs follow a causation process (Dew et al, 2009b; Sarasvathy, 2008). David was the most explicit in his use of predictive/causation methods to assess the financial prospects of his first business. As mentioned above, he applied the financial forecasting techniques he had learnt at university to assess whether or not his childcare centre would be financially viable. Significantly, predictive/causation methods are considered the 'traditional' approach to entrepreneurship and are therefore commonly taught in business school programmes (Sarasvathy, 2001, 2008), including those David attended.

John said he calculated his venture's earning potential in order to assess whether it was worth pursuing full-time or if he should instead focus on a career as a trader. As such he was computing the venture's 'expected returns,' a technique which is again consistent with the causation approach to entrepreneurship (Chandler et al, 2011; Fisher, 2012). Moreover, Mark's projected margins on his school leavers' jerseys - although calculated only roughly - were the focus of his financial thinking when he started his initial venture. At the same time, at that point he had very little money to put at risk and also lacked the skills to sell his idea to external investors. He was thus forced to use a low-cost model and rely on his family's connections in the apparel industry to get the venture up and running. He said that all he invested personally was one dollar – the upfront payment for a monthly mobile phone contract – and a lot of 'elbow grease.'

Tom was something of an exception to the predictive thinking approach.

Because he had no capital to start his initial venture his focus was on how to keep startup costs as low as possible. For him it was a case of financial constraints determining
his financial thinking. On his fifth venture, however, he turned to a predictive/causation
approach in order to grow an import-based business. This latter venture proved to be a
critical juncture in his entrepreneurial career and I will refer to it in the following
subsections.

### **Episode 2: Experiencing outcomes**

During Episode 2 entrepreneurs experienced the outcomes and associated financial consequences of their initial ventures. The range of outcomes experienced during this episode provides insight into what influenced their financial thinking with respect to subsequent ventures. Importantly, 'unexpected' outcomes - which generally went hand-in-hand with negative outcomes – prompted entrepreneurs to reflect deeply on their previous approaches to financial thinking.

#### A range of outcomes

Entrepreneurs experienced a range of financial outcomes following the founding of their initial ventures. Outcomes varied from positive to negative and included some mixed outcomes that had both positive and negative aspects. Mark's experience provides a good example of a positive outcome. He said he 'did really well financially' out of his initial venture. On reflection he said, 'I lucked in there, a lot ... My problem was it was too good,' which led him to spend his profits frivolously. John's outcomes were neither entirely positive nor negative. Too much focus on financial analysis and a lack of sales experience led him to wind his venture down before he had taken it to the 'growth' stage. He did not gain a great deal from it financially, but neither did he suffer any substantial losses. David, on the other hand, experienced largely negative outcomes in the early stages of founding his first venture. At the end of three months, the money he had borrowed from the bank had run out. At the same time he still had to fund payroll. In the end he was forced to sell his brand new SUV and golf clubs just to keep the business afloat. On reflection he said that he had placed too much faith in his financial forecasts: 'You do a twelve-month forecasting from day one to the end of the financial

year, but 99 percent of the time things [don't go to] plan.' This highlights another important theme from the data: many outcomes experienced by entrepreneurs were unexpected, which upset financial predictions.

#### **Unexpected outcomes**

All of the entrepreneurs who had founded at least four ventures had experienced unexpected outcomes resulting from events/circumstances beyond their control. These outcomes in turn upset their financial predictions, which depended on 'things going to plan.' Tom, for example, suffered significant financial setbacks when the global financial crisis (GFC) caused major fluctuations in international exchange rates, making his import-based business (referred to above) no longer viable in financial terms. 'We were all of a sudden buying our product for more than we were selling it for,' he said. David had also experienced unexpected outcomes on numerous occasions, which he referred to as 'things out of the blue.' Less than a year after founding his initial venture, for instance, he found himself having to pay compensation to a former employee. This was something his budget and predictive planning had not taken into account. 'At the beginning stage I had a lack of experience in the industry,' he explained, 'so I didn't know I would be dealing with the teachers and with the teachers union .... So I had to pay the [eleven thousand dollars of] compensation but [it was] completely out of the blue.' Mark had also been surprised by financial losses when attempting to launch new ventures. On one occasion he had invested over a million dollars in a project that returned 70 cents. He attributed such financial losses to putting too much faith in his (and his team's) own ability to predict what products consumers would buy. 'The mentality back then was build it and they [the customers] will come,' he said.

#### Reflection on outcomes

The experience of outcomes with financial consequences led entrepreneurs to reflect on the financial thinking they had applied in establishing previous ventures. Generally speaking, negative and unexpected outcomes (which tended to go hand-in-hand in the data) led to more in depth reflection than did outcomes that were perceived as positive and/or in line with financial predictions. For example, Mark's initial venture in school leavers' jerseys proved very successful, which led to little reflection on his returnsfocused financial thinking. Losing money on unsuccessful ventures later in his career, however, led him to appreciate the importance of not investing too much money in an 'unproven' idea. 'It's all about mitigating risk,' he said. 'The more you get burned, the more you like that idea [of mitigating financial risks].'

Similarly, the experience Tom had with his import-based business during the GFC had caused him to reflect deeply on his financial thinking. Once his financial model had become untenable due to fluctuations in international exchange rates, he attempted to change the business to make it 'less fragile' to such external shocks. However, an external investor who had bought a 25 percent stake in the business and a seat at the board prevented him from doing so. Tom subsequently exited the business and ended up substantially 'out of pocket.' On reflection he saw the experience as a major learning curve in his entrepreneurial career.

David also said that the negative/unexpected financial outcomes he had experienced were those he had reflected on in the most depth. He saw these outcomes as 'variations' from his financial forecasts. As with Tom, these 'variations' were usually the result of events or circumstances beyond his control: changes to government funding, issues with employees, transportation and logistical problems. David said learning to cope with such unforeseen occurrences had been the most important lesson he had taken from all of his combined experiences. John, on the other hand, had yet to experience any substantially negative/unexpected financial outcomes. He therefore had

not had the occasion to reflect deeply on the financial thinking he used with his initial venture.

## **Episode 3: Founding Subsequent Ventures**

Episode 3 saw entrepreneurs founding subsequent ventures. The way they thought about the financial implications of starting these ventures depended on the outcomes they had experienced with their initial ventures and the extent to which reflection on those outcomes had forced a reassessment of their previous approach. The data revealed significant changes in entrepreneurs' financial thinking at this stage, especially amongst those with the most experience. The general pattern for such changes was a shift from the 'predictive' financial thinking of causation to the 'control-based' financial thinking characteristic of effectuation.

### Positive/predicted outcomes reinforce previous approach

Entrepreneurs did not change their financial thinking substantively when they experienced positive/predicted outcomes from their initial venture. Instead such outcomes tended to reinforce their previous approach to financial thinking. Mark offered a good example of this tendency. Following the establishment of his initial venture he experienced only positive financial outcomes. He thought he could make a healthy profit from the venture and that is exactly what happened: 'I did really well out of it financially,' he said. This forced little reflection on what he could have done differently in terms of financial thinking. When it came time to establish his second venture he readopted his previous returns-focused approach. If anything, he became more focussed on predicting financial outcomes, carrying out extensive market research

and cost-related calculations to verify that the internet café he planned to establish would return healthy profits. It was only later in his career, when a number of ventures did not go to plan, that he reassessed his financial thinking.

#### Negative/unexpected outcomes force changes in financial thinking

Each of the three entrepreneurs who had founded at least four ventures indicated that they had changed the way they thought about the financial implications of starting new ventures over the course of their careers. Moreover, each attributed these changes to negative/unexpected outcomes that had left them sceptical of their own ability to predict financial outcomes. Tom made this explicit when he said, 'One thing I have learned is that you're always wrong [about financial projections] to begin with, which is a good thing to know.' David confirmed this line of thinking: 'At the beginning I hundred percent trust[ed] the [financial] forecast[s] I made – I learn[t] it from a book... But in a real life situation things never go smoothly, things out of the blue [happen], unexpected things.' Mark's thinking had changed in a similar manner, albeit later in his career. At a certain point he had stopped trying to predict which business ideas/products would become commercial successes and instead began to focus on 'proving' the financial viability of such ideas/products (at minimal cost) before sinking any real investments into them. Mark's description of trying to 'prove' a product is consistent with the notion of experimentation from effectuation (Chandler et al, 2011; Fisher, 2012). His desire to keep investment to a minimum until a product was proven is a good illustration of affordable loss, another concept from effectuation theory (Chandler et al, 2011; Fisher, 2012). Mark said that being proven wrong on previous occasions – thanks to a 'build it and they will come' mentality – had led to such changes in his thinking.

#### Higher levels of experience lead to more changes in financial thinking

A further theme from Episode 3 was that the more experience an entrepreneur had, the more likely he was to change his financial thinking since founding his initial venture. As alluded to above, evidence suggests that founding several ventures resulted in entrepreneurs experiencing a greater range of outcomes, including negative/unexpected outcomes with financial consequences, which in turn prompted a reassessment of previous approaches to financial thinking. Mark, Tom and David had all founded at least four ventures. Each of them also indicated that they had made substantive changes to the way they thought about the financial implications of starting new ventures over the course of their careers. The entrepreneur whose financial thinking had changed the least was John. John was also the least experienced entrepreneur in the sample, having founded only two ventures in total. The changes John made to the way he thought about the financial implications of starting his second venture were more 'technical' than substantive. That is to say, the second time around he used considerably more sophisticated financial modelling techniques than for his initial venture. However, his focus remained on trying to predict the financial outcomes of the venture, suggesting no substantive changes to his thinking and continued reliance on a causation process.

# From predictive/causation thinking to control-based/effectuation thinking

The majority of entrepreneurs became less reliant on the predictive financial thinking typical of causation as they accumulated more experience. Instead they aimed to remain in control of financial outcomes – as one would expect from someone following an effectuation process - by either 1) starting small and proving business ideas/concepts before investing heavily in them, or 2) only investing what they could afford to lose. In saying that, all of the entrepreneurs still made financial projections before starting new

ventures. Crucially, however, they made these projections for reasons other than financial management and prediction, as by this point they had become sceptical of their ability to predict the financial consequences of their actions. For example, Tom knew that any financial projections he made would probably prove wrong. But he still made them because he needed to have a 'fantasy' (about potential profits) in order to motivate himself. 'You've got to remember that we're emotional beings,' he said, 'and each of us get up out of bed every morning and if we don't see something promising, the energy doesn't come... [So] you've got to trick yourself a bit [about the money you might make when starting a venture], but at the same time you've got to know you're tricking yourself a bit.' Tom had applied this kind of financial thinking in founding his most recent venture. At the beginning he had experimented with different ideas. When he found one that seemed to work he *did* think about the financial gains it could produce, but only as a kind of 'dream.' His real financial thinking was revealed by his actions: instead of investing more than he could afford to lose in order to build a finished business from scratch, he focussed on minimising costs and growing the venture incrementally. For example, acquiring staff was one of the major costs associated with the venture. Rather than offering potential 'employees' enticing salaries, however, he made people with the skills he needed 'partners' in the business by 'selling them his vision.' In this way he managed to stop his cost and revenue lines from getting too far apart as the business grew.

David's thinking had also changed in a similar manner. Early on he had trusted the financial forecasting techniques he learned at university '100 percent.' With experience, though, he had come to realise that too many unforeseen events interfered with forecasts and associated budgets. When it came to subsequent ventures, therefore, he always gave himself a financial 'buffer' to cover unexpected outcomes. He still did his financial forecasting 'for the bank,' he said, 'but more for compliance purposes. For

the real operation and for the cash flow I think you better get quite a bit of a buffer to protect yourself.'

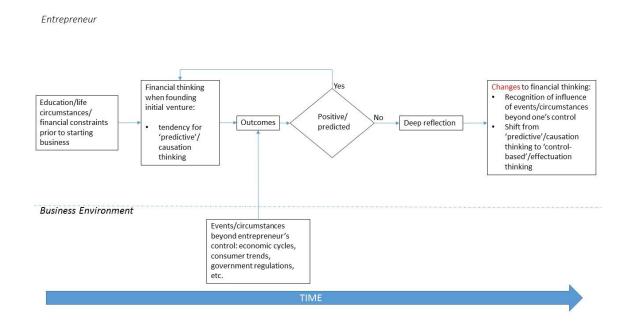
Finally, Mark's financial thinking had become less focussed on predicting what customers would buy and more on investing as little as possible in a new product/service until it had gained 'traction' in a market. He still thought about potential returns when conceiving new ventures – it was important that the earning *potential* was there – but he no longer assumed that he and his team were capable of imagining what customers wanted. He therefore aimed to 'prove' new concepts in the most inexpensive way possible before investing the money to grow them. This approach allowed him to exert control over financial outcomes to the extent that he could, suggesting Sarasvathy's (2001, 2008) argument that effectuating entrepreneurs *control what is controllable*.

# How entrepreneurs' financial thinking evolves over time

Although this study is exploratory, evidence does suggest a process whereby entrepreneurs' financial thinking evolves over time. Figure 2 demonstrates this process. As such it offers a possible explanation of *how* changes in entrepreneurs' financial thinking take place due to experience. This is a contribution to the literature because existing research tends to sort entrepreneurs into dichotomous categories of expert – or highly experienced - and novice (Dew et al, 2009b; Sarasvathy, 2008). Although these studies have found that experienced entrepreneurs tend to follow an effectuation process - thinking in terms of control not prediction – they do not account for *how* experience

affects their thinking. The process model offers an initial attempt to describe how novice entrepreneurs evolve into expert entrepreneurs who think effectually.

Figure 2: A process model of changes in financial thinking



The figure begins on the left, showing that an entrepreneur's initial approach to financial thinking is shaped by factors including education, life circumstances and personal financial position. The data revealed an overall tendency for 'predictive'/causation financial thinking at this stage. Once an entrepreneur has applied this approach, s/he experiences a range of outcomes. These outcomes – which may be positive or negative (or mixed) and in line with financial predictions or 'unexpected' – are influenced by events/circumstances beyond the entrepreneur's control (e.g. economic cycles, consumer trends or changes in government regulations). The outcomes an entrepreneur experiences at this point are crucial to whether or not his/her financial thinking changes when founding subsequent ventures. Positive/predicted outcomes tend to reinforce one's initial approach to financial thinking, as shown in the feedback arrow that runs from the diamond back to the financial thinking box. In contrast, negative/unexpected outcomes produce deep reflection on the initial approach.

A key aspect of this reflection is recognition of the influence of events/circumstances beyond the entrepreneur's control. As a result of reflection an entrepreneur changes the way s/he thinks about the financial implications of founding subsequent ventures. In particular, s/he becomes less focussed on *predicting* financial outcomes, and more focussed on *controlling* them to the extent possible. Significantly, such changes represent a shift away from a causation approach to financial thinking and towards to an effectuation approach (Chandler et al, 2011; Fisher, 2012; Sarasvathy, 2001, 2008).

In the following chapter, I discuss major findings from this chapter in terms of implications for the wider entrepreneurship literature. I also identify limitations to the present research.

# **Chapter 5: Discussion and Conclusions**

The purpose of this study was to investigate empirically the way experience of multiple venture start-ups affects the financial thinking of entrepreneurs. The study thus makes a contribution to the entrepreneurship literature by offering insight into how the financial thinking of entrepreneurs changes over time. Specifically, it surfaces a process through which changes in financial thinking occur. This is a contribution to the literature because, while a number of studies have noted that the financial thinking of entrepreneurs differs according to *experience level* (Dew et al, 2009b; Sarasvathy, 2008), no existing research accounts for *how* experience shapes such differences. My research question was therefore: 'How does experience of multiple venture start-ups affect the way entrepreneurs think about the financial implications of founding subsequent ventures?'

My study produced two key findings. First, it showed that the financial thinking of entrepreneurs *did* change over time and that changes were due to experience.

Specifically, entrepreneurs adopted a predictive/causation approach to financial thinking early in their careers, computing expected returns and using financial forecasting techniques. As they accumulated more experience, however, they used a more control-based/effectuation approach, asking themselves, 'what can I control and how do I go about controlling it?' Second, findings offer insight into the *process* through which this general shift in financial thinking took place, highlighting the role of negative/unexpected outcomes and associated financial consequences. Unexpected outcomes led entrepreneurs to reassess and change their previous approaches to financial thinking when founding subsequent ventures.

One somewhat surprising finding was that entrepreneurs who changed to a control-based approach to financial thinking, consistent with effectuation theory, still used predictive/causation financial techniques. However, they used predictive/causation techniques for purposes other than prediction. A number of participants said that, despite being sceptical of their own ability to predict financial outcomes, they still made financial projections for reasons such as complying with bank policies or as a source of motivation. This finding is particularly interesting given that previous studies investigating effectuation (e.g. Dew et al, 2009b; Sarasvathy, 2008) offered research subjects only stark, binary choices -i.e. 'do you think about how much you will gain orhow much you can afford to lose?' Binary choices helped identify effectual thinking but excluded the possibility of surfacing the nuance identified in the present research – i.e. that entrepreneurs used both effectuation and causation approaches but employed the causation approach for reasons other than prediction. Some authors have already explored the idea that entrepreneurs can apply both effectuation and causation processes to a single venture (e.g. Fisher, 2012; Guo et al, 2016). The present finding encourages future research that examines *experienced* entrepreneurs' motivations for using predictive/causation thinking. Researchers may also explore whether the same entrepreneur can use both causation and effectuation techniques on the same venture but at different stages in the venture's lifecycle. For example, is predictive/causation thinking used by experienced entrepreneurs in the growth phase, after a venture has been established? Sarasvathy (2008) herself argued that causation and effectuation processes are to a certain extent context dependent.

Findings from the present study have two main implications for the wider entrepreneurship literature. Firstly, findings regarding the *experience of unexpected outcomes* suggest that this construct may be an antecedent to effectual thinking.

Existing research has established that experienced entrepreneurs tend to think

'effectually,' while novices are more likely to think 'causally' (Dew et al, 2009b; Sarasvathy, 2008). No one, however, has accounted for the mechanism whereby experience leads to effectual thinking. My study suggests that unexpected outcomes and associated financial consequences lead entrepreneurs to reflect deeply on and change their financial thinking. Current participants came to appreciate the influence of events/circumstances beyond their control and, consequently, doubted their ability to predict outcomes in future. Thereafter they focused on *controlling what was controllable*, which is the essence of effectuation thinking (Sarasvathy, 2001). In summary, future research could examine unexpected outcomes as an antecedent to effectuation thinking. One might also ask: to what extent is venture failure an antecedent to effectuation thinking for second chance entrepreneurs?

Furthermore, my finding regarding unexpected outcomes has implications beyond entrepreneurs' financial thinking in that these outcomes caused entrepreneurs to become sceptical about their *ideas* for future ventures. For example, both Tom and Mark said their experience of unexpected and negative outcomes taught them to be sceptical about which of their ideas could produce successful ventures. These experiences made them more likely to experiment with or test ideas for new ventures before committing to them. Such an approach is in line with the concept of 'experimentation,' one of the hallmarks of the effectuation process (Chandler et al, 2011; Fisher, 2012; Sarasvathy, 2001, 2008). Future research might therefore explore the extent to which unexpected/negative outcomes in founding ventures leads to experimenting with ideas for subsequent ventures.

Secondly, the finding that the study of finance at university influenced entrepreneurs' financial thinking for their first venture calls into question the use of MBA students in studies of the entrepreneurial process. In particular, present findings show that entrepreneurs who took finance courses as part of their tertiary study used

causal/predictive approaches to financial thinking unquestioningly when founding their first ventures. Given that MBA students study finance as part of their degrees, the present finding calls into question the use of MBA students as novices in research on the entrepreneurial process (e.g. Dew et al, 2009b). MBA students' training could confound results in such studies. Researchers designing future effectuation studies might therefore consider using students with no formal financial training when trying to compare experienced and novice entrepreneurs.

As with all research, this study has limitations for the reader to keep in mind when considering findings. First, the sample was (unintentionally) made up entirely of male entrepreneurs. Research has noted gender differences in the realm of financial risk-taking (Hibbert, Lawrence & Prakash, 2013). Future research could therefore explore a research question similar to the one addressed here in a sample of female entrepreneurs. Second, the issue of retrospective bias needs to be considered given that participants were asked to recount events and thoughts that took place in the past.

Although this is an issue, it does not seem overly problematic given research that shows people have accurate recall up to 50 years after a significant event (Berney & Blane, 1997). A prospective study that identified potential entrepreneurs and followed them as they founded a number of ventures, tracing changes in their financial thinking as they occurred over time, would be a way to avoid such retrospective bias. However, such a design would be well beyond the scope of a 6 month master's dissertation.

Despite limitations, the present study has contributed to the entrepreneurship literature by offering an initial exploration of how experience of multiple venture start-ups affects the way entrepreneurs think about the financial implications of founding subsequent ventures. It identified changes that occurred in entrepreneurs' financial thinking over time and, perhaps more importantly, offered a preliminary description of the process whereby entrepreneurs acquire control-based/effectuation thinking. Given

the extent of interest in entrepreneurial process theories – clearly visible in the research cited in Chapter 2 – this is a worthy and potentially fertile contribution.

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# **Appendices**

## Appendix A

16 March 2016

Trish Corner Faculty of Other Internal Centres

Dear Trish

Re Ethics Application: 16/72 Now experienced entrepreneurs think about the financial implications of starting a new venture.

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 15 March 2019.

As part of the ethics approval process, you are required to submit the following to AUTEC:

- A brief annual progress report using form EA2, which is available online through <a href="http://www.aut.ac.nz/researchethics">http://www.aut.ac.nz/researchethics</a>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 15 March 2019;
- A brief report on the status of the project using form EA3, which is available online through <a href="http://www.aut.ac.nz/researchethics">http://www.aut.ac.nz/researchethics</a>. This report is to be submitted either when the approval expires on 15 March 2019 or on completion of the project.

It is a condition of approval that AUTEC is notified of any adverse events or if the research does not commence. AUTEC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this.

To enable us to provide you with efficient service, please use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at <a href="ethics@aut.ac.nz">ethics@aut.ac.nz</a>.

All the very best with your research,

Manuar

Kate O'Connor
Executive Secretary
Auckland University of Technology Ethics Committee

Cc: James Greenslade-Yeats <u>jgreensladeyeats@gmail.com</u>

### **Appendix B: Interview Questions**

- 1) Can you describe the way you thought about the financial implications of starting your first venture? (How did you fund the venture? To what extent was that first venture financially successful?)
- 2) When you started your second venture, how had your thinking changed regarding the financial implications of starting a business? How did you fund this second venture? Did you think about losing your investment? If yes, how likely do you think that was?
- 3) You said that your thinking changed regarding the financial side of business start-up, what would you say was the biggest reason for this change?
- 4) You mentioned earlier that your (second, or whatever number) venture failed. How did this failure affect the way you thought about the financial implications of starting subsequent ventures?
- 5) In your opinion, how has experience helped you evolve as an entrepreneur, especially when it comes to the money side of things?