

Using Creativity to Defeat Fear and Manage Ambiguity for Enhancing Entrepreneurial Decisions



Arpan Yagnik and Yamini Chandra

Abstract The present chapter focuses on creativity and its potential role in overcoming fear and tolerating ambiguity. Both fear and ambiguity are known to be deterrents of entrepreneurial decisions. In this chapter, entrepreneurial decision-making is discussed as a part of strategic and cognitive process, Creative Aerobics (CA) is introduced as a strategy for enhancing creativity, and finally the key role CA can play in overcoming fear and negotiating and tolerating ambiguity/uncertainty to enhance entrepreneurial decision-making process is discussed. This chapter presents a conceptual model mapping the relation between creativity, fear, ambiguity and entrepreneurial decisions. Review of conceptual and empirical literature in the field was adopted as a methodology to bring forth the possibility of the relationship model. The chapter also emphasizes the need for creativity enhancement and presents CA as a strategy to enhance creativity. CA, a four-step ideation system, can help entrepreneurs generate multiple ideas/solutions in quick succession.

1 Introduction

The framework of entrepreneurship has three major components: (a) the ‘enterprise’—an entity a person ventures into, a ready-to-go market model which is preferably proposed to establish and address the need gap prevailing in the said (niche) market; (b) the ‘entrepreneur’—a person himself/herself who with his/her knowledge, skills and abilities and personal struggles chooses entrepreneurship as a career option; and (c) the ‘entrepreneurship’, an unusual path which the person lives by choice, a journey which represents pain, challenges, obstacles, sacrifices and toughest experiences. Entrepreneurial journey is one of making decisions, mostly difficult ones, to ensure the execution of a thought-out plan (or a business model) with a background awareness of contingencies that might arise as a result

A. Yagnik (✉)
Penn State University, Erie, PA, USA

Y. Chandra
Entrepreneurship Development Institute of India, Ahmedabad, India

of making decisions in an environment of high uncertainty. Decisions are often made in the absence of adequate market intelligence, with scarce resources and under the pressure of moving ahead of the competition. Every decision has a consequence, and when the stakes are high, the consequences are equally high. Entrepreneurs have to overcome a plethora of fears that infest them to make sound decisions. They also have to manage, and to a great extent even tolerate, the inherent ambiguity and uncertainty that abounds in entrepreneurship.

Is there something that can help entrepreneurs in overcoming fear and better managing ambiguity or uncertainty, which may in turn have the potential to improve entrepreneurial decisions? This question became the guiding force for this chapter. This chapter reviews and elaborates the fear and ambiguity and their role in entrepreneurial decisions. Following that this chapter introduces the seldom-discussed concept of creativity and explicates the very important role it can play in defeating fear and negotiating with and tolerating ambiguity and uncertainty to enhance entrepreneurial decisions. The aim of the chapter was to introduce a conceptual model proposing a relationship between fear, ambiguity, entrepreneurial decisions and creativity. This model presented is only a conceptual advancement and further empirical studies are required to validate and establish the strength of the model. The methodology that was adopted was a comprehensive review of conceptual and empirical literature in the field along with the in-depth discussion of the major concepts. This chapter is important and will add value for potential and aspiring entrepreneurs, research scholars, academicians and ecosystem enablers. This chapter is important specifically for entrepreneurs having a hard time making decisions related to their enterprise because of the prevailing fears and ambiguity associated with entrepreneurial decisions. Entrepreneurs work in environments that have high uncertainty and risk. This characteristic of the environment makes decision-making challenging and difficult. This chapter is important for entrepreneurs because it introduces them to creativity as a tool to overcome and manage fear and ambiguity and because it enables them to overcome their fears by using creativity techniques to generate multiple options in quick succession and also better manage the ambiguity and uncertainty by increasing their tolerance for it by being accustomed and privy to the notion of what it isn't. This chapter has two goals: first, to present a discussion of decision-making, fear and ambiguity, in regard to their role in entrepreneurship, based on a comprehensive review of literature, and second, to present creativity as a tool to overcome fear and manage ambiguity along while introducing Creative Aerobics (CA) as a creativity enhancement strategy suitable for adoption by entrepreneurs. This chapter is divided into four major sections explicating decision-making, fear, ambiguity, and creativity and creativity enhancement. The main takeaway from this chapter is that creativity helps in generating multiple ideas, and having multiple options can drastically alter the decision-making process. Enhanced creativity also improves one's ability to tolerate ambiguity and navigate it. This enhanced skill is greatly relevant to entrepreneurs who constantly live in ambiguity and make decisions with little or no information. Creative Aerobics (CA) (George and Yagnik 2017) is one of the creativity enhancement strategies that is a good fit as it can not only help entrepreneurs enhance their creativity but also help them access solutions that existed

before but were not accessible. This would greatly aid entrepreneurs in defeating their fear, managing ambiguity and optimizing entrepreneurial decisions.

2 Decision-Making

Decision-making is a complex phenomenon, which requires a person to think in a strategic way, to come up with solution(s) for a prevailing problem. Decision-making under complex situations demands thoughtful and executable strategic thoughts. Often the entrepreneur lives in a situation that poses questions against their own decision and subsequent strategies, which they may have adopted to make those decisions.

2.1 *Entrepreneurial Decision-Making*

The practice of decision-making in organizations revolves around two important concepts: (a) strategy and (b) cognition. Decision-making in itself is a strategic activity, which counts for determining specific course of action to reach the desired strategic goals. Strategic decision-making process leads to the choice of stepwise activity and the way in which these steps are executed to derive a probable desired solution (Vermeulen and Curseu 2008, p. 16). The second relevant facet is cognition; it refers to the way in which decision-related information is presented and transformed into a meaningful data.

The success of small firms hinges greatly on well-thought-out strategic decisions (Robinson and Pearce 1983). Schoemaker defined strategic decisions as ‘intentional choices of programmed responses about issues that materially affect the survival prospects, well-being and nature of the organization’ (1993, p. 107). Entrepreneurial decisions are complex. In some instances, it has been observed that entrepreneurs have to make judgements under uncertain circumstances when discovering and defining a new opportunity. Shane (2000) argued that the same situations are interpreted differently by different entrepreneurs, thereby making different judgement about the outcome of the decision taken under those situations (e.g. defining business opportunities). Thus different expectations’ ‘triggering entrepreneurial judgement’ varies based on individual discretion.

Entrepreneurs have a strong desire to be independent; they believe it is better to invest in their own self (or in their own ideas). Oftentimes the decision to start one’s own business comes from a disruption (Frederick et al. 2007). The knowledge of identifying a market and subsequently creating possibilities for profit is referred to as alertness in entrepreneurship. Entrepreneurs are differentiated from non-entrepreneurs by not just their ability of alertness (Kirzner 1973); they also differ on attitudes, characteristics, experiences and other aspects that end up in action taken by them (Brandstatter 2010).

Entrepreneurs typically function under circumstances where elements are shifting from one to another, ill-defined situations and problems present themselves periodically that require solving problems strategically, competing goals (within and outside the organization) and multiple players competing at all levels are very likely to be present. Decision-making belongs to the domain of problem structuring and problem-solving—a form of cognitive activity, which can be treated as a specific skill. Some researchers have argued that the level of affect about the perception of the way the world operates (e.g. locus of control), the varied nature of people, and understanding of oneself has had effect on the entire process of decision-making. Sometimes connections with the business and social communities can also be a predictor in the decision-making process (Izard 2009; Schwartz 1994; Granovetter 1985). Entrepreneurs approach decision-making strategy and the implementation of it differently from most people.

2.2 *Strategic Decision-Making*

Strategic decisions vary along two dimensions—control and performance. When an individual is said to be taking decisions under the influence of ‘control’, he/she first considers to what extent they can influence a decision and the resulting output. The second way strategic decision-making affects is where dimension of success is measured, considering relative capacity from others.¹

Rosenzweig (2013) explained three dimensions that affect the decision-making; these are:

1. *Making routine choices and judgements.* This behaviour is observed when the person is encountered with random available options/alternatives in front of him/her—where control over the best choice is very low as more or less all the available options seemed to be appropriate or sometimes it suits best at that moment. This can be replicated with the personal investment decisions in the business environment; here, the entrepreneur is stuck between where to pour more investment either in branding/marketing or purchasing raw material or giving extra perks to the employees.
2. *Influencing outcomes.* Decisions at times involve selections from available options/alternatives where influences on the outcomes of the decisions are minimal. For example, determining how long the project at hand will take time to finish, this is more of a judgemental in nature where the individual has some control over the completion of the task and output in terms of performance. Sometimes, such an activity calls for making the mind back and forth, choosing between first and second substitute. Here, shifting between mindsets is a crucial

¹Retrieved as on May 2018 from: <https://hbr.org/2013/11/what-makes-strategic-decisions-different>

element of high performance for the tasks requiring repeated actions to be taken within shorter durations.

3. *Placing competitive gamble*. This introduces individuals to a competitive dimension, where calculating success is no longer a matter of the outcome of the absolute performance, but it does depend on how well the person performs in relation to others. It should further be noted that the best decisions under these circumstances are to notice and keep a tap on the moves of rivals, anticipating on their likely moves so to predict the chances of winning.

While these are processes which entrepreneurs follow, which may sometimes not go step by step or flow in the form of overlapping each other, others have discussed the five most widespread drivers for an organization which can add to defining a strategy (McMullen and Shepherd 2006; Plummer et al. 2007; Vermeulen and Curşeu 2008); these are:

- (a) Providing a better focus on the core activity and understanding the better ways to improve the current practices
- (b) Strengthening the market position (which also counts for analysing the rivals)
- (c) Distribution of the products geographically and simultaneously calculating the risk distribution which will be incurred
- (d) Growth of the entire organization (e.g. increasing knowledge or size)
- (e) The involvement of heuristics (a mental schema allowing people to solve problems and making judgements quickly and efficiently) in the strategy formation process

When a discovered opportunity does not fit the organizations' entrepreneurial strategy, entrepreneurs search for other viable commercial opportunities that do fit the entrepreneurial strategy. After an opportunity fits the entrepreneurial strategy of an organization, entrepreneurs exploit these opportunities.

Figure 1 illustrates the strategic decision models adopted for the public decision-making process, especially for issues which do not have easy available solutions. These models suggest that the centre of the decision-making framework revolves around the collaboration and learning between the decision-makers, scientists and associated stakeholders who closely interact with each other at times to understand various ways in which these situations (issues) can be addressed. This process starts by defining the criticality of the issues which leads to accessing the information (to find out ways to address these issues), analysing the risks and scrutinizing the available supportive resources which could be converted into a tool to address these issues. This sort of analysis is referred to as the 'resource-based view' which emphasizes analysing the internal factors of the firm (Papadakis and Barwise 2002). The next step arises with understanding the integrated steps which can be an alternative to consider or trade off these measures. All these processes require monitoring. Parallel to these, other steps move on to further augment the enhancement of understanding to establish decision criteria that are followed by the implementation of these analysed strategies. Papadakis (2006) suggested that '...the decision-making process is far from being an iterative, well-defined and sequentially

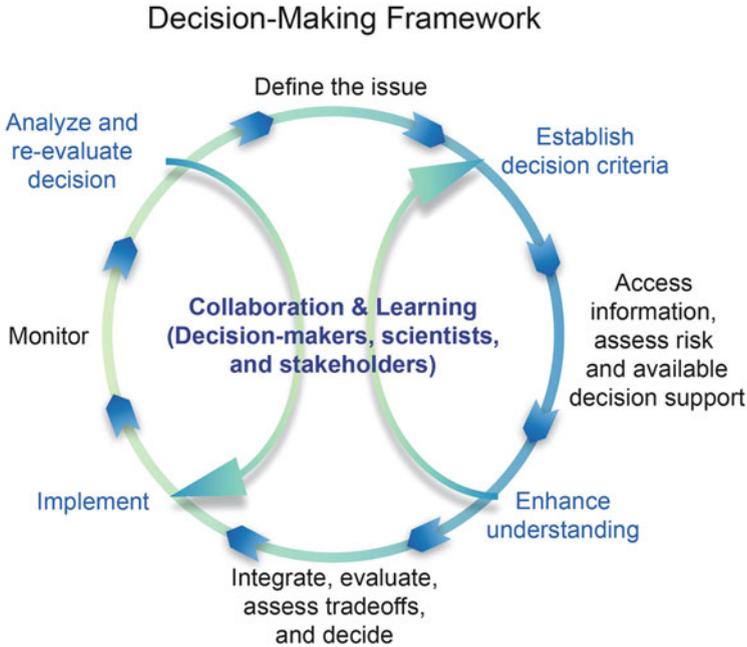


Fig. 1 Strategic decision models for public decision-making (Source: Allen and Coates 2009)

evolving set of activities. Thus, instead of using step-by-step models of strategic decision making processes researchers create a number of dimensions describing generic attributes of the process. . .’ (p. 370).

2.3 Theories of Strategic Decision-Making

The theories of entrepreneurial strategic decision-making process are closely associated with exploring and exploiting the entrepreneurial opportunities. For potential entrepreneurs, decision-making process plays a key role in determining the probability of the success. High probability of succeeding in one’s entrepreneurial venture increases the likelihood of choosing those strategies to receive the desired results (MacMillan et al. 1985). Sometimes it has also been observed that firms have been created by entrepreneurs even though the willingness of the market to accept their product/services is negligible, and this makes situation more complex that they elevate in the scenario without bringing out more necessary information to bring new markets into existence.

Entrepreneurs are observed operating in the situations relating from uncertainty to ambiguity. The effectuation reasoning models say that during the decision-making process entrepreneurs operate either through the logic of control or through the logic

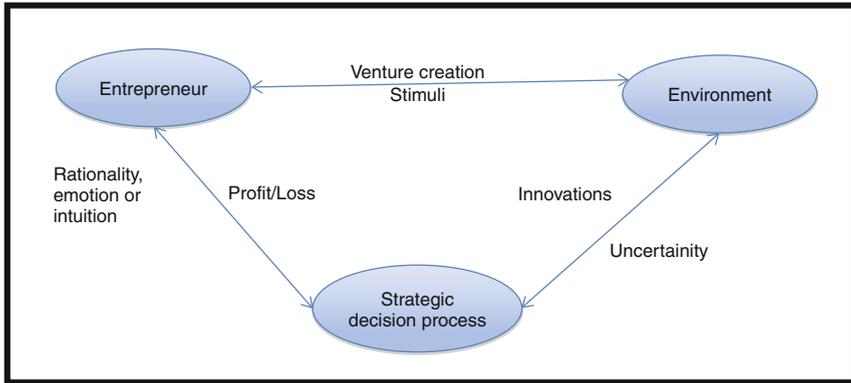


Fig. 2 A framework for entrepreneurial decision-making (Source: Adapted from Vermeulen and Curseu 2008; based on: Ivanova and Gibcus 2003)

of prediction. In the logic of control, if a person can control the future, then he/she has no need for predicting it, whereas in the logic of prediction, if a person can predict future, he/she will be able to control it.

Another model of strategic decision-making described by Vermeulen and Curseu (2008) is depicted in Fig. 2. A framework for entrepreneurial decision-making showed here consists of three aspects: the environment, the entrepreneur and the strategic decision process. These three components are in constant interaction with each other while following the path of decision process. These three major elements constructing entrepreneurial decision-making are interlinked, and change in any one of them reflects a change in the others.

3 Fear: What It Is and How It Affects Entrepreneurs

Fear is real, powerful and debilitating. Fear is closely related to, but should be distinguished from, emotional anxiety, which occurs as the result of threats that are perceived to be uncontrollable or unavoidable. Some of the researchers like Rauch and Frese (2007) in their work assert that entrepreneurs prefer certainty more than uncertainty to avoid fear of failure as it may lead to 'potential loss of self-image and self-respect' (Ray 1994, p. 157). Wagner and Stenberg (2004) looked at fear of failure as an indication of greater risk aversion tendencies, whereas Vaillant and Lafuente (2007) explicated that the 'social stigma which surrounds fear of failure is the source of origin' in many individuals to sometimes avoid or many a times it acts as a hindrance in trying out novel opportunities in life. An emotion of fear, in any individual, brings out two kinds of behaviour, where the person chooses either to approach the situation with a strategy to deal with the outcome or, in some individuals, to flee from the situation when uncertainty is observed. These behaviors are of

similar kind as described by Hans Selye (1907) in the theory of general adaptation syndrome (GAS, 1956) which tells ‘...the alarm reaction phase, where the response of the individual is “fight or flight”...’ (3479: 32).²

The fear of failure in the literature has been grouped into two ways, viz. personological and motivational orientation of an individual. Personological approach closely looks at individual’s tendency to experience fear, and motivational approach looks at the environment and its relation with psychological and behavioural outcomes (Cacciotti and Hayton 2014). We also highlight here that both internal and external circumstances intrigue reactions as a response to the situations, which elicits fear in the person. This is affected by many factors including the upbringing of the person. For example, some parents force their children to get exposed to different situations which make them understand the process of exploring and recognizing the potential threats, novel experiences, etc. Another of its kind are past experiences of the person, which he has experienced because of the outcome of similar situations (this could be from self and sometimes shared by others), and lastly a way of exploring things by trial-and-error method. In the case of entrepreneurs, many of them have observed their fathers or uncles taking decisions in many situations (who are/were associated with their family businesses), with a pre-mindset to accept the outcomes of those decisions. Sometimes, the older generation shares these experiences with the younger generation to enhance their knowledge, skills and values of the businesses and thus enhance their competencies.

Entrepreneurs experience many fears, such as fear of making an idea acceptable to the ecosystem, fear of entrepreneurial entry, fear of failure, fear of taking risks, fear of falling prey to the fears, fear of being mediocre, fear of losing creativity, fear of new entrants, fear of financial losses, fear of loss of autonomy, fear of losing the established sense of self and, the most unusual, the ‘fear of success or sometimes handling the success’.³ However, a common denominator for entrepreneurs is the ‘fear of failure’. This emotion when experienced can inhibit and/or motivate entrepreneurial behaviour. Thus investigating fear of failure can create basis for better understanding entrepreneurial motivation. Fear of failure sometimes stands out to be one of the deterrent factors for setting up new business. McMullen and Shepherd (2006) argued that individuals’ reaction to opportunities comes first and then comes considerations about desirability and feasibility for new business start-up. For entrepreneurs, fear of failure comes as an assessment of threats in situations where he/she could potentially not succeed. An entrepreneurial situation is closely associated with risk-taking and uncertainty and acts as an inhibitor in one’s entrepreneurial entry (Caliendo et al. 2009).

Through this section, we want to highlight various modes of fear as experienced by entrepreneurs. These sources of fear arise from various internal and external stimuli and have different responses based on the different situations from which it is arising. Different types of fear are described below, of which some are adapted from

²Retrieved as on September 2018 from: www.worldcat.org/title/stress-of-life/oclc/597890662

³Retrieved as on May 2018 from: www.entrepreneur.com

the literature and some of them have been quoted by authors based on their interactions with the student/entrepreneurs during the classroom activities.

3.1 Fear as Experienced by Entrepreneurs

When fear is behind entrepreneurial decisions, the probability of producing ideas for ventures that may lead to breakthrough innovations and disruptions is meagre. Fear is experienced by entrepreneurs in many different ways and at many different stages. Different fears come in different intensities and with a different impact on the entrepreneur depending upon the situations. Hence for an entrepreneur, it is important to understand different types of fears. Largely speaking, fear can be experienced and it can turn out to be a motivator or an inhibitor. The latter is more frequent. The fear of stepping out of one's comfort zone and risking things associated with it can be a deterrent for the entrepreneurial spirit. Entrepreneurship also forces an individual to wear hats that he/she has never worn before. Fear of being unable to wear multiple new hats at the same time and coping with the challenges associated with it can be debilitating. It has also been observed in many instances that rather than simply inhibiting people from being entrepreneurial, fear of failure motivates greater striving for success. Ideally, no entrepreneur wants to fail, even though the current trend of the start-up movement has seen and accepted the notion of 'fail fast and fail often'. For example, students are encouraged to go for a pilot run of their business ideas while their studies are continuing to test the viability and acceptability of the product/service: if it fails, they move onto test another one; if they succeed, they further study it in a bigger geographic arena. The educational campuses sometimes act as a better ecosystem to go for trial-and-error attempts.

Fear of failure is a big fear among entrepreneurs. The loss of face and fortune and not being able to recover from the losses are all real possibilities. Entrepreneurs, sometimes, decide to choose objectives that are relatively easier to achieve rather than goals that have higher risk (Hayton and Cacciotti 2018). Fear can also elevate a difficult goal into an impossible goal. While taking on a perceivably impossible goal, the individual becomes prey to rationalization that failure may occur due to the perceived impossibility of achieving the goal and not from other reasons such as lack of enough effort or understanding of the market or the timing of the product launch.

Another fear experienced by entrepreneurs is the fear of doing badly. 'What if I do badly?' Entrepreneurs fall prey to such thoughts by having second thoughts about their ability to deliver. Such thoughts impact entrepreneurs' decisions by making them undermine their decision and even question it and even putting off things till a later time.

Another fear experienced by entrepreneurs is the fear of going back to the traditional job environment. Individuals who choose to become entrepreneurs after pursuing a career in traditional jobs often live under the fear of not being able to perform better in their venture and are fearful of 'what if this fails I have to go back to that world which I have already left behind?' This can serve as both a motivator and



Fig. 3 Individual's perceptions: opportunities, capabilities and fear of failure (Source: Global Entrepreneurship Monitor 2013, pp. 26–28)

an inhibitor. Lastly, the entrepreneurial life is typically seen as full of uncertainty, and therefore an important fear experienced by entrepreneurs is the fear of uncertainty. Fear of success is another fear experienced by entrepreneurs. The vacuum created by not having anything to do after succeeding in ones venture is yet another fear that entrepreneurs dread. There are many more fears that are experienced by entrepreneurs but are not as generic as the ones listed here.

Fear is an integral part of entrepreneurship. And the above points throw a light upon some common fears as experienced by the entrepreneurs. Risk and uncertainty stand out as the common anticipation of discomfort, arising due to the drastic changes that occur as a result of unprecedented success. Fear of failure has been a major concern not only for the entrepreneurs but also for the ecosystem supporters. It is closely related to the understanding of entrepreneurial opportunities and the strategic steps taken for exploring and exploiting opportunities. The Global Entrepreneurship Monitor (GEM) report of 2017 states that there is a moderate increase in the fear of failure among the population (aged 18–64 years) in comparison to the year 2016.

Figure 3 describes the individual's perceptions—in terms of opportunities, capabilities and fear of failure—as observed in the Global Entrepreneurship Monitor (GEM) report (2013). The report observed that the perceived opportunities and perceived capabilities measures were doubly higher in factor-driven economies in comparison with innovation-driven economies. The report highlighted the

percentage of population (between the age 18 and 64) from Italy, Japan, France, Germany, the United Kingdom and the United States and their subsequent fear of failure preventing from initiating a new venture.

4 Ambiguity, Entrepreneurs and Decision-Making

Entrepreneurialism is highly appreciated in today's time. Every organization aspires to become highly innovative, nimble and agile (qualities that are mostly observed in entrepreneurs). Yet entrepreneurs often create firms in the absence or with a lesser amount of detailing about the market trends (Shane and Venkataraman 2000). The other factors that differentiate entrepreneurs from others are the ability to 'thrive in uncertainty, a passionate desire to author and own project, and unique skill at persuasion' (Butler 2017, para. 3). Bhidé (2000) conducted an exploratory study on a sample of 100 successful start-up founders from the fast-growing innovative companies. This study concluded that entrepreneurs differ from normal folks as they remain confident even when dealing with ambiguous situations:

[T]he low ambiguity aversion of the individuals who start promising businesses derives from (or is a manifestation of) exceptionally high levels of self-confidence [...]. The self confidence of entrepreneurs however, appears so strong that they are prepared to start a business where they do not have any objective advantage over their rivals. (Bhidé 2000, 98)

In the survival of individuals, both at the professional and personal front, decision-making ability is key (Liebherr et al. 2017). Setbacks and surprises are inevitable part of life and they also prevail under business environment setting. Decisions are based on the previous experiences with a prior thought on the consequences, which follows it. Liebherr et al. (2017) further suggested that in both research and applied perspective, the in-depth comprehension of risk-taking preferences and decision-making competence is gaining momentum.

'When an ambiguous situation arises individuals have available options but have no information on which options are better or worse' (Brand et al. 2006). Hence, it is only through the test of time that one learns the merits and demerits of the decisions made. Entrepreneurs face similar challenges while implementing a decision under ambiguous situations. Sometimes they are under pressure of the investors, who were seen as more interfering in the decision process related to their business. For example, instead of price war, the entrepreneur selects to offer better and faster services to minimize inventory level of their network members and encourages them to go for horizontal growth in respect of variety than less number of items in large quantity stocked by them. Here, flexibility for providing better service to their vendors and simultaneously managing the stock at higher price creates ambiguous situation.

The most important decision to make is the decision to make a decision. Here it is important to remember that not deciding is a decision in itself, for example, deciding the price of the product—from how much revenue it will bring, to the kinds of

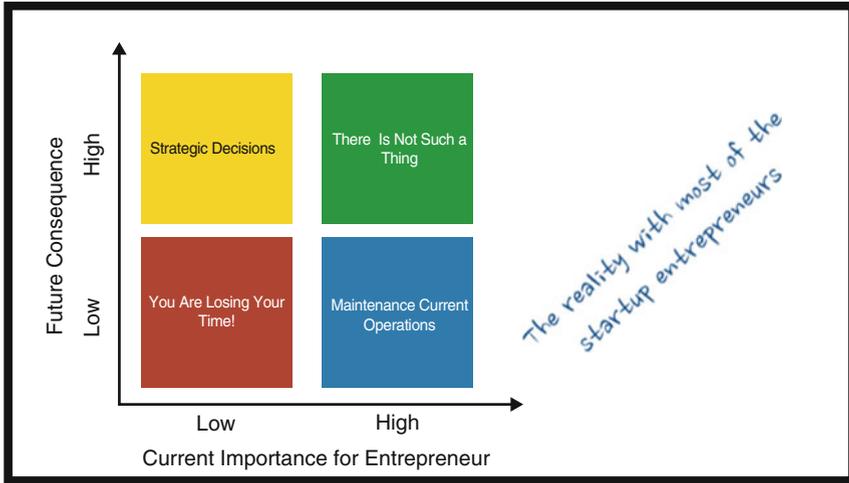


Fig. 4 Start-up entrepreneur focus (Source: <https://www.entrepreneurshipinbox.com>)

customers which they are able to attract, to building of the branding image, etc. For a person deciding to venture into the world of entrepreneurship in itself is a process of forming a huge decision in himself/herself, they have already decided to leave the predictability of standard corporate jobs. These steps itself help them to face unpredictable results with confidence, tackling it with guts. Being able to confine and commit to the big decisions in itself is the most important fundamental skill an entrepreneur can develop.

Figure 4 describes a decision-making focus for start-up entrepreneurs. As described in this figure, most of the entrepreneurs lay focus on the decisions that have low consequences on the future of the start-up business, but at the time when they were making decisions, that decision seemed to be something most important which they need to decide and implement quickly as possible. The nuances of success are defined differently for different entrepreneurs in different situations. Some of them think that the success of their business lies in surviving, while others think that success is more about creating sustainable or a scalable/sellable company. Some of them think that success is giving a gratitude for self-employment, while others think that success is creating the high-potential growth company which is worthy not only for them but also for the economy. Sometimes entrepreneurs get stuck in a situation where they need to reject all decisions that have low future consequences for their company for it brings low importance for them.

To better understand the complexity that ambiguity presents in decision-making, it is worth taking a look at the case in an article published in *Harvard Business*

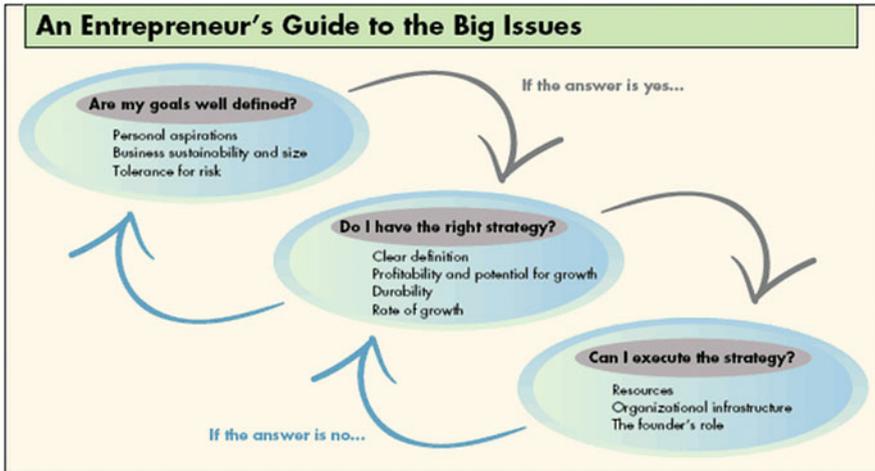


Fig. 5 An entrepreneur's guide to the big issues (Source: Bhidé 1996, <https://hbr.org/1996/11/the-questions-every-entrepreneur-must-answer>)

Review by Amar Bhidé⁴ (November–December, 1996, issue). Bhidé also presents a series of questions that any entrepreneur must ask from him/herself as success necessitates asking questions to oneself about the end goal and the appropriateness of the path that they are taking to resolve the complications arising from ambiguity.

It is to be further understood that the appropriateness of options varies from venture to venture (depending on varying situations, products, customers, market penetration, etc.). Entrepreneurs are always in a fix, and they need to make bewildering number of decisions. All their decisions not only have to be right for them but also for their venture and everyone associated with it. The challenging part over here is that all the decision making by an entrepreneur has to occur with inadequate information and intelligence about the market, competitors and other unaccounted changes. Hence the framework Bhidé (1996) proposed is of a three-step sequence of questions. These steps help entrepreneurs to clarify current goals, evaluate their strategies for attaining those goals and assess their capacity to execute their strategies. The hierarchical way an entrepreneur needs to address these questions is described in Fig. 5.

For any entrepreneur, he/she cannot (or are mostly not in a position to) differentiate between personal and business goals; often it goes hand in hand or overlaps each other. Hence, setting personal goals should precede the setting of business goals. A very crucial step is to ask their own selves periodically, whether these goals have changed or are still the same. Ambiguity and uncertainty are prevalent and

⁴Retrieved as on May 2018 from: <https://hbr.org/1996/11/the-questions-every-entrepreneur-must-answer>

rampant in an entrepreneur’s world. And an entrepreneur must develop the ability to successfully navigate or tolerate ambiguity and uncertainty.

5 Creativity and Creativity Enhancement in Entrepreneurial Decision-Making

A creative man is motivated by the desire to achieve, not by the desire to beat others—Ayn Rand

It has been observed that many successful ideas ignite and germinate in a free-form environment. The passion and zeal to produce novel or unique solution or product or service helps to showcase his/her ability to come up with probable solutions while addressing the problem itself brings a sense of self-gratitude to that individual.

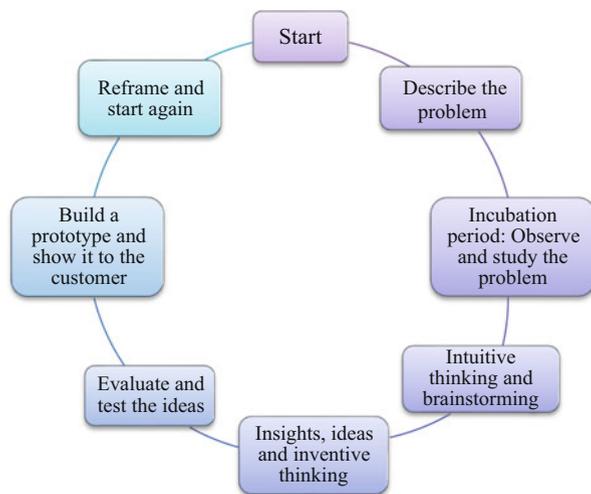
Butler (2017) describes some of the myths about entrepreneurs; these are:

- The Stereotype: *Entrepreneurs are unusually creative.*
- The Subtler Truth: *Entrepreneurs are curious seekers of adventure, learning and opportunity.* (para. 7)

Butler (2017) further asserts that there is a tendency of entrepreneurs to be high on curiosity and restlessness and not necessarily outstandingly creative. ‘They aren’t seekers—but they find uncertainty and novelty motivating’ (Butler 2017, para. 4). While entrepreneurs excel at original thinking, so do non-entrepreneurs (Butler 2017).

Often the creative process is collaborative; a typical flow of creativity process is shown in Fig. 6. It starts with describing the problem. Next comes the incubation period, where the entrepreneur observes, understands and studies the problem. This

Fig. 6 Creativity process (Source: Dorf and Byers 2013)



is followed by brainstorming where an individual produces numerous probable solutions to the given problem in a small group setting. The next step comes when the person starts to gain newer ideas through insights and innovative thinking followed by evaluating and testing these ideas. This helps to build a prototype which can be discussed with probable customer (i.e. a stage of pilot testing the product), and if it fails at any of these she starts the process/she starts the process again.

Kern (2010) (as cited in Yagnik 2018) emphasizes on the importance of creativity and an individual's creative abilities in the contemporary American culture. Additionally, Yagnik (2018) also refers to the work of several scholars such as Coholic et al. (2012), Greene et al. (2012), Lynch et al. (2013) and Metzl (2009) that indicated better coping abilities of individuals with higher creative capacity amidst tragic and traumatic events. Entrepreneurs also work in conditions that are high risk, high stress and high stake. A major loss could easily lead to depression, trauma and tragedy. Therefore, it does not come as a surprise that a common key element that successful entrepreneurs have is creative thinking (Amabile 1997; Ward 2004).

Growth and survival of any business entity depend on its ability to constantly adapt and bring in processes that are unique in the current system (VanGundy 1992; Kao 1997). The same is also likely true for an individual entrepreneur. If an entrepreneur is unable to adapt and introduce new ideas, then over a period of time his/her growth is questionable. Thus, enhancing creativity systematically among entrepreneurs can go a long way because it can not only help with ambiguity but also manage and defeat fear.

5.1 *Creative Aerobics for Entrepreneurs*

Creativity is like a booster rocket, it can propel human mind beyond the confines of gravity into the outer space.

Creative Aerobics (CA) (George and Yagnik 2017) is an ideation process that can help entrepreneurs generate ideas in quick succession. CA has a set of four mental interconnected exercises. CA minimizes the stress involved in generating ideas. This is so because CA is a process-driven enhancement strategy that takes the focus away from the outcome and instead transfers it to the process. The process of CA is a good fit for entrepreneurs because CA is better suited for an individual in comparison to many other ideation techniques that are mainly suited for small groups. A brief explanation of the four CA exercises is given here as follows:

- The first exercise, Creative Aerobic 1 (CA-1), is a left-brained solicitor of facts about the process, product, problem or situation under scrutiny. 'Facts' are delivered by way of lists using secondary research, primary observation, experiential data, associative information and even others' observations.
- The second exercise, Creative Aerobic 2 (CA-2), puts the right brain to work creating what-it-isn't 'names' (nouns) for the selected process, product, problem

or situation by manipulating facts from CA-1 and making lists of tangible, unrelated objects that share the same functional or physical characteristics. This process can be repeated as many times as needed to build more lists.

- Analytic, left-brained Creative Aerobic 3 (CA-3) connects the seemingly unconnected dots by finding similarities between the list of facts generated in CA-1 and the new names created in CA-2. Thus, the third exercise is intended to find the similarity between dissimilar things.
- Finally, right-brained Creative Aerobic 4 (CA-4) increases and extends creative ambiguity by developing new, what-it-isn't definitions for relevant, already existing CA-1 facts. The close, detailed interconnection of these four exercises develops related links of creative discovery. In the process of generating mega-data specific to the assignment, there is no delay in results: entrepreneurs can arrive at solutions immediately following or even during implementation.

To give an understanding of why CA is a good fit for entrepreneurs, let us take a closer look at CA-3. CA-3 (finding similarities between dissimilars) is especially great for entrepreneurs because it trains entrepreneurs to not only navigate ambiguity but also tolerate ambiguity and find connections between the disconnected. The finding connection between the seemingly unconnected is a tremendous asset for entrepreneurs in terms of identifying opportunities and unmet needs. CA-3 also enhances one's ability to think outside the box to identify solutions that exist but were previously not accessible.

CA-4 is the exercise of creating new meanings for existing phrases. It is apt for entrepreneurs because through this exercise one can develop an ability to see the same things differently, for example, 'Tickle the Ivories' ad by a University of Florida student for an ad promoting the Zambia National Tourist Board that won the Gold Award at the American Advertising Federation Student ADDY Awards (George and Yagnik 2017, p. 97). There was a deliberate use of ambiguity here with the phrase Tickle the Ivories, which traditionally means playing the piano, whereas here it meant playing with the elephants. Such exercises with deliberate use of ambiguity not only increase tolerance for ambiguity but also allow an entrepreneur to give an adverse or risky situation or problem a new meaning and transform adversity into opportunity. The ability to see opportunity in adversity is precious and serves as a competitive edge for an entrepreneur. This ability also sets you apart as an entrepreneur or an intrapreneur and even as a leader.

CA is a suitable creativity enhancement strategy because it is easy to learn and easy to follow. There is no need for any specialized education or training to learn and master CA. The core strength of CA is to generate numerous options in quick succession for problems or situations. It also helps navigate ambiguity by incorporating the ability to provide meaning to ambiguity and therefore tolerating and accepting. Also, having options adds to one's confidence and also reduces the stress and fear. Hence, CA is apt for entrepreneurs.

To succeed in entrepreneurship, many readily place their bet on technology. We differ here and with all due regard and respect for technology choose ideas. Ideas reign sovereign. The power of ideas transcends time, whereas technology may not.

By engaging in the simple and fun Creative Aerobics exercises, your reward will be the ideas, lots of them that will be generated with little to no effort. CA is vital for entrepreneurs because it is authentic and ‘it allows you to reach down into the depths of your creativity and arrive at solutions that will be yours’ (George and Yagnik 2017, p. 26). This is a great advantage because the ideas that you produce are unique and novel.

A constant stress-inducer for innovators and entrepreneurs is to come up with a game-changing, disrupting Big Idea. Big Ideas are rare and few and don’t come around as often as one would like. However, most individuals spend a considerable amount of time coming up with a Big Idea to innovate or to solve an existing problem. But spending time in doing so is not greatly sustainable because there is no process or method to get to it. A kind of eureka moment is not systematic occurrence. Regardless of the number of times it happens, there is no guarantee that it will happen again. George and Yagnik (2017) assert that ‘Big Ideas start out as those fresh, small, out-of-the-box thoughts Creative Aerobics generates for you’. And then they grow up! It is so much more productive—and less time-consuming, by the way—to keep adding on elements and dimensions until your thoughts scream ‘I’m a Big Idea now!’ (p. 15). Moreover, George and Yagnik (2017) also insist that individuals should focus on process and not the end result and all that is needed is to divert the already existing skills to the process.

6 Conclusion

This chapter proposes a conceptual model for enhancing entrepreneurial decisions by enhancing creativity. The rationale for enhancing creativity is that fear and ambiguity are major deterrents of effective entrepreneurial decisions. And enhancing creativity will enable entrepreneurs to better manage their fears and ambiguous situations. Given in Fig. 7 is the conceptual model of the proposed relationship.

To better illustrate the link between the three concepts of creativity, fear and ambiguity and their role in entrepreneurial decision-making, the chapter also introduces Creative Aerobics (a creativity enhancement technique developed by George and Yagnik 2017), a four-step ideation process that enables an entrepreneurs in many ways to make sound entrepreneurial decisions. CA is not only a tool to enhance creativity but also a systematic technique to generate multiple options rapidly. It also trains individuals to play with and manipulate ambiguity. This increases ones’ tolerance towards ambiguity and ambiguous situations making them better managers of ambiguity. Additionally, it also trains individuals to see similarities between seemingly dissimilar or unconnected situations and find new meanings for existing situations. Both these qualities are advantageous not only when it comes to managing fear and ambiguity but also while facing difficult or adverse situations. Moreover, it is less stressful to choose from multiple options in comparison to having to forcefully choose just the one option that is set upon you. By using an unconventionally systematic enhancement strategy such as CA, you can

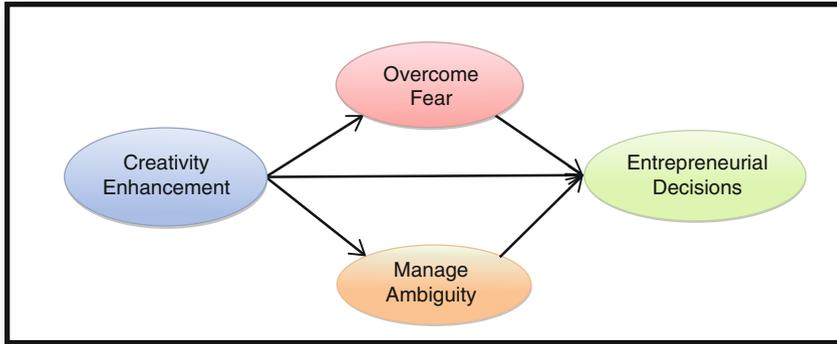


Fig. 7 Creativity enabled conceptual model to improve entrepreneurial decisions (Source: Author)

come up with multiple solution options rather than a few using conventional knowledge and research. Thus, CA training of entrepreneurs will allow them to defeat fear, manage ambiguity and optimize their decision-making ability. Given that this chapter is proposing a conceptual advancement, the future research will focus on an empirical studying and testing the proposed model for its efficacy. Future research should first explore the strength and type of relationship between creativity and overcoming fear, creativity and managing ambiguity, and then move towards confirmatory and predictive tests. Once again, the proposed conceptual model is important as it advances theory and presents opportunities for newer ways to improve entrepreneurial decisions to be examined. The knowledge regarding the strategic use of creativity will add value for potential and aspirant entrepreneurs, research scholars, academicians and ecosystem enablers.

References

- Allen, C. D., & Coates, B. E. (2009). Strategic decision making paradigms: A primer for senior leaders. *Judgment and Decision Making*. Retrieved May 14, 2018, from <http://j-dm.org/archives/2246>
- Amabile, T. M. (1997). Entrepreneurial creativity through motivational synergy. *The Journal of Creative Behaviour*, 31(1), 18–26.
- Bhide, A. (1996, November–December). The questions every entrepreneur must answer. *Harvard Business Review*. Retrieved May 06, 2018, from <https://hbr.org/1996/11/the-questions-every-entrepreneur-must-answer>
- Bhidé, A. H. (2000). *The origins and evolution new businesses* (p. 49). Oxford: OUP.
- Brand, M., Labudda, K., & Markowitsch, H. J. (2006). Neuropsychological correlates of decision-making in ambiguous and risky situations. *Neural Network*, 19, 1266–1276. <https://doi.org/10.1016/j.neunet.2006.03.001>
- Brandstatter, H. (2010). Personality aspects of entrepreneurship: A look at five meta-analyses. *Personality and Individual Differences*. <https://doi.org/10.1016/j.paid.2010.07.007>

- Butler, T. (2017). Hiring an entrepreneurial leader. *Harvard Business Review South Asia, March–April*, 87–95. Retrieved from www.hbrasia.org
- Cacciotti, G., & Hayton, J. C. (2014). *Fear of failure and entrepreneurship: A review and direction for future research*. ERC Research Paper No. 24. Retrieved May 13, 2018, from www.entrepriseresearch.ac.uk
- Caliendo, M. F., Fossen, F. M., & Kritikos, A. S. (2009). Risk attitudes of nascent entrepreneurs—new evidence from an experimentally validated survey. *Small Business Economics, 32*, 153–167.
- Coholic, D., Eys, M., & Lougheed, S. (2012). Investigating the effectiveness of an arts-based and mindfulness-based group program for the improvement of resilience in children in need. *Journal of Child & Family Studies, 21*(5), 833–844.
- Dorf, R. C., & Byers, T. H. (2013). *Technology ventures: From idea to enterprise* (Indian ed., p. 114). McGraw Hill Education (India).
- Frederick, H. H., Kuratko, D. F., & Hodgetts, R. M. (2007). *Entrepreneurship: Theory process practice* (pp. 75–89). Thomson.
- George, L., & Yagnik, A. (2017). *Creative Aerobics: Fueling imagination in the 21st century*. New Delhi: Sage.
- Global Entrepreneurship Monitor (GEM). (2013). *The Global Report* (pp. 26–28). José Ernesto Amorós, Niels Bosma and Global Entrepreneurship Research Association (GERA).
- Global Entrepreneurship Monitor (GEM). (2016/2017). *The Global Report* (p. 21). Babson College, London Business School, Universidad del Desarrollo, Universiti Tun Abdul Razak and Global Entrepreneurship Research Association (GERA).
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology, 91*, 53–81.
- Greene, R. R., Hantman, S., Sharabi, A., & Cohen, H. (2012). Holocaust survivors: Three waves of resilience research. *Journal of Evidence-Based Social Work, 09*(05), 481–497.
- Hayton, J., & Cacciotti, G. (2018, April 03). How fear helps (and hurts) entrepreneurs. *Harvard Business Review*. Retrieved May 13, 2018, from <https://hbr.org/2018/04/how-fear-helps-and-hurts-entrepreneurs>
- Ivanova, E., & Gibcus, P. (2003). *The decision-making entrepreneur: Literature review*. EIM Business and Policy Research, Zoetermeer, Netherlands.
- Izard, C. E. (2009). Emotion theory and research: Highlights, unanswered questions, and emerging issues. *Annual Review of Psychology, 60*, 01–25.
- Kao, J. (1997). *Jamming: The art and discipline of business creativity*. New York: Harper Business.
- Kern, F. (2010). What chief executives really want? *Bloomberg Business Week*. Retrieved from <http://www.businessweek.com/innovate/content/may2010/id20100517190221.htm>
- Kirzner, I. M. (1973). *Competition and entrepreneurship*. Chicago: University of Chicago Press.
- Liebherr, M., Schiebener, J., Averbek, H., & Brand, M. (2017). Decision making under ambiguity and objective risk in higher age – A review on cognitive and emotional contributions. *Frontiers in Psychology*. Retrieved May 19, 2018, from <https://doi.org/10.3389/fpsyg.2017.02128>
- Lynch, M., Sloane, G., Sinclair, C., & Bassett, R. (2013). Resilience and art in chronic pain. *Arts & Health: An International Journal of Research, Policy and Practice, 05*(01), 51–67.
- MacMillan, I. C., Siegel, R., & SubbaNarasimha, P. N. (1985). Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing, 01*(01), 119–128.
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review, 31*(01), 132–152.
- Metzl, E. S. (2009). The role of creative thinking in resilience after hurricane Katrina. *Psychology of Aesthetics, Creativity, and the Arts, 03*(02), 112–123.
- Papadakis, V. M. (2006). Do CEOs shape the process of making strategic decisions? Evidence from Greece. *Management Decision, 44*(03), 367–394.
- Papadakis, V. M., & Barwise, P. (2002). How much do CEOs and top managers matter in strategic decision-making? *British Journal of Management, 13*, 83–95.
- Plummer, L. A., Haynie, J. M., & Godesiabo, J. (2007). An essay on the origins of entrepreneurial opportunity. *Small Business Economics, 28*, 363–379.

- Rauch, A., & Frese, M. (2007). Born to be an entrepreneur? Revisiting the personality approach to entrepreneurship. In J. R. Baum, M. Frese, & R. A. Baron (Eds.), *The psychology of entrepreneurship. The organizational frontiers* (pp. 93–112). Mahwah, NJ: Lawrence Erlbaum Associates.
- Ray, D. M. (1994). The role of risk-taking in Singapore. *Journal of Business Venturing*, *09*, 157–177.
- Robinson, R. B., & Pearce, J. A. (1983). The impact of formalised strategic planning on financial performance in small organizations. *Strategic Management Journal*, *04*(01), 197–207.
- Rosenzweig, P. (2013, November). What makes strategic decisions different? *Harvard Business Review*. Retrieved May 14, 2018, from <https://hbr.org/2013/11/what-makes-strategic-decisions-different>
- Schoemaker, P. J. H. (1993). Strategic decisions in organizations: Rational and behavioural views. *Journal of Management Studies*, *30*(01), 107–129.
- Schwartz, S. H. (1994). Are there universal aspects in the content and structure of values. *Journal of Social Issues*, *50*, 19–45.
- Selye, H. (1907). *Stress of life*. New York: McGraw-Hill [1956], (DLC) 56013402, (OLOC) 525839. Retrieved from www.worldcat.org
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, *11*, 448–469.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, *25*(01), 217–226.
- Vaillant, Y., & Lafuente, E. (2007). Do different institutional frameworks condition the influence of local fear of failure and entrepreneurial examples over entrepreneurial activity? *Entrepreneurship & Regional Development*, *19*(4), 313–337.
- VanGundy, A. B. (1992). *Idea power*. New York: American Management Association.
- Vermeulen, P. A. M., & Curseu, P. L. (2008). *Entrepreneurial strategic decision making: A cognitive perspective* (p. 16). UK: Edward Elgar.
- Wagner, J., & Stenberg, R. (2004). Start-up activities, individual characteristics, and the regional milieu: Lessons for entrepreneurship support policies from German micro data. *Annual Regional Science*, *38*, 219–240.
- Ward, T. B. (2004). Cognition, creativity, and entrepreneurship. *Journal of Business Venturing*, *19*, 173–188.
- Yagnik, A. (2018). Communication for development and social change through creativity. In J. Servaes (Ed.), *Handbook of communication for development and social change*. Singapore: Springer.