

Identifying Decision Making Biases in Entrepreneurial Opportunity Exploitation Decisions

Jahangir Yadollahi Farsi¹, Pouria Nouri¹, Abdolah Ahmadi Kafeshani¹

¹Faculty of Entrepreneurship, University of Tehran, Tehran, Iran

Correspondence: Abdolah Ahmadi Kafeshani, Faculty of Entrepreneurship, University of Tehran, North Kargar, Tehran, Iran. Tel: 98-9137366687. E-mail: Ab.ahmadi@ut.ac.ir

Received: February 24, 2016

Accepted: February 26, 2016

Online Published: April 18, 2016

doi:10.5539/ibr.v9n5p158

URL: <http://dx.doi.org/10.5539/ibr.v9n5p158>

Abstract

Opportunities are the core of entrepreneurial process. By identifying, evaluating and exploiting lucrative opportunities, not only do entrepreneurs make profits for themselves, they also propel their societies to prosperity. In order to exploit opportunities, entrepreneurs need to make various decisions based on their evaluation of opportunities as well as their own capabilities. Most of the time, these decisions are made under reverse circumstances rife with uncertainty, ambiguity, lack of needed resources as well as high time pressure. Thus, it seems reasonable to hypothesize that entrepreneurs' decisions to exploit opportunities are prone to decision making biases. In order to test this hypothesis, this paper conducted a qualitative content analysis approach by interviewing 17 Iranian entrepreneurs. According to our findings, overconfidence, escalation of commitment, planning fallacy and illusion of control are the common decision making biases in entrepreneurs' decisions to exploit opportunities.

Keywords: entrepreneurship, decision making, biases, opportunity exploitation

1. Introduction

Decision making is of grave necessity for entrepreneurs in order to launch and manage their businesses. Given the specific circumstances under which entrepreneurs act, entrepreneurs' decisions are sometimes irrational. Rational decision making needs sufficient information as well as enough time and staff to process and analyze them. Because the environments of entrepreneurs' activities are most of the time rife with uncertainty and ambiguity, this process does not happen for entrepreneurs, particularly in the initial phases of their businesses (Frese et al, 2000). Lack of adequate data and sufficient staff as well as uncertain environment lead to entrepreneurs being prone to decision making biases, especially in the initial phases of their enterprises. Shefrin (2007) defined biased decisions as decisions made under the influence of an opinion or a belief. The bulk of literature on entrepreneurial decision making biases indicates that these biases are so common in various aspects of entrepreneurial decisions. Because of their specific cognitive characteristics Baron (1998), entrepreneurs, especially the ones in small businesses make (strategic) decisions rife with biases (Busenitz & Barney, 1997). Decision making biases are considered as one vital element of entrepreneurial decision making research map (Shepherd, Williams and Patzelt, 2014). One of the most important decisions made by entrepreneurs is the decision to exploit opportunities. Entrepreneurs need to make decisions about whether or not to exploit opportunities. Given the sensitivity and importance of entrepreneurs' decision to exploit opportunities, this process has been studied by lots of scholars (Choi and Shepherd, 2004; Haynie, Shepherd and McMullen, 2009). By studying the bulk of research on this topic, one concludes that the main concentration has been on the resources of the firms and their influence on entrepreneurial decisions to exploit opportunities. In other words, resource-based view has been the dominant approach to analyze entrepreneurial decisions to exploit opportunities, thus, the role of subjective factors, especially biases in this period has been neglected. This negligence is important because on one hand it generates a crucial gap in the field of entrepreneurship and on the other hand, deprives us of possible, precious practical implications regarding entrepreneurial decisions to exploit opportunities. Trying to fill this gap, we conducted a qualitative content analysis approach to identify decision making biases in entrepreneurial opportunity exploitation. In the following sections, we present literature review, research method, our findings and implications for future researches.

2. Literature review

2.1 Entrepreneurial Opportunity Exploitation Decisions

The decision to exploit opportunities is a very important decision for entrepreneurs. This decision usually comes after

entrepreneurs' evaluation of their resources as well as the profitability of the opportunity. Various studies have researched the factors influencing entrepreneurs' decisions to exploit opportunities. For example, Haynie et al (2009) conclude that exploitation decisions come after a process of cognitive, future-oriented resource evaluation. In an important study, Choi and Shepherd (2004) studied main factors influencing entrepreneurs' decision to exploit opportunities. According to their findings, entrepreneurs are more likely to exploit opportunities when they have necessary knowledge of customer demand as well as enabling technologies, managerial capabilities and stakeholder support. Access to financial capital (Blanchflower, Oswald, and Stutzer, 2001), access to human capital, especially education and experience (Dimov and Shepherd, 2005) have also been mentioned as the main factors influencing entrepreneurs' decisions to exploit opportunities. In general, most scholars have focused on the importance of resources at disposal and the role of other important factors, especially decision making biases have been largely neglected.

2.2 Decision Making Biases

Decision biases are determining factors in entrepreneurial decisions. Entrepreneurs are more biased in their decisions than nonentrepreneurs (Shepherd et al, 2014, p.20). Various factors have been identified as the main causes of these biases. Extensive application of heuristics (Manimala, 1992), uncertainty and complexity (Busenitz and Barney, 1997), a combination of individual and organizational factors (Forbes, 2005) as well as specific entrepreneurial cognitive characteristics (Baron, 1998) and a lot of other factors contribute to the formation of these biases. Because of their direct impact on entrepreneurs' decisions, Decision biases have impressive influences on the success or failure of entrepreneurial decisions. For example, biases make entrepreneurs interpret equivocal situations as being more favorable (Palich and Bagby, 1995), lead unprepared entries and subsequent failure (Camerer and Lovo, 1999) and cause entrepreneurs to underestimate risk in their venture-related decisions (Simon, Houghton and Aquino, 2003). In general, the literature on entrepreneurial decision making biases has mostly concentrated on proving the existence of these biases in entrepreneurial decisions as well as finding out their roots, determinants, and subsequent impacts.

3. Method

We developed qualitative content analysis approach. This method involves establishing categories and then counting the number of instances when those categories are used in a particular item of text so it allows replicable and valid inferences from data to their context (Robson, 1997; Silverman, 1997).

The data used in this study came from interviews with Iranian's entrepreneurs. A purposeful sample approach adapted used for data collection. The sampling method was intentional and the sample size was limited by data gathering (Eisenhardt, 1989, p.545; Marshall, 1996; Creswell, 2005, p405).

We adapted in-depth interviews and we used more questions so as to gather depth information from the interviewees. Then Data transcripts in order to reveal or model people's information related behaviors and thoughts. We generated an initial list of coding categories from the previous studies, and modify it within the course of the analysis as new categories emerge inductively (Miles & Huberman, 1994).

Qualitative content analysis allows us to assign a unit of text to more than one category simultaneously (Tesch, 1990). Even so, the categories in our coding scheme should be defined in a way that they are internally as homogeneous as possible and externally as heterogeneous as possible (Lincoln & Guba, 1985). Coding sample text, checking coding consistency, and revising coding rules are iterative processes that were continued until sufficient coding consistency was achieved (Weber, 1990). When sufficient consistency was achieved, the coding rules were applied to the entire corpus of text.

Instead of producing counts and statistical significance, Qualitative content analysis uncovers patterns, categories and themes from social reality. So reporting research findings from qualitative content analysis is important and we used typical quotations to justify conclusions (Schilling, 2006).

Shapiro & Markoff (1997) asserted that content analysis itself is only valid and meaningful to the extent that the results are related to other measures but in content analysis approach we need to demonstrate the reliability of the instruments and the reliability of the data collected to allow replicable inferences to be drawn from data derived from content analysis. Some strategies were implemented for addressing Validity and reliability of our study. For Reliability, We used multiple coders and the finding show that the discrepancies between the coders were minimal. We also selected disclosure categories from well-grounded relevant literature, and clearly defined them (Milne and Adler, 1999; Guthrie et al., 2003). For addressing Validity of the study we reviewed relevant documents and studies about our topic to provide triangulation of thematic analysis. An external audit was implemented where the overall research process and analysis was audited by a third party expert researcher (Creswell, 2005; Weerawardena, and Mort, 2006).

4. Results

We continued interviews until after 17 interviews we reached saturation. Table 1 shows demographic characteristics of our sample.

Table 1. Demographic characteristics

		No.	Percentage
Gender	Male	15	88.2
	Female	2	11.8
Age	<30	4	23.6
	30-44	11	64.6
	>45	2	11.8
Educational Level	Bachelor degree	10	58.8
	Master degree	5	29.4
	PhD	2	11.8
Industry	IT	5	29.4
	Agriculture	3	17.6
	Food	5	29.4
	Chemicals	4	23.6

After the interview were transcribed, we read them and Codes were extracted without the interference of our assumptions. Then in axial coding stage the codes identified in open coding stage were compared and similar categories were merged and finally 4 categories were identified in selective coding. Table 2 shows these four decision making biases in entrepreneurial opportunity exploitation decisions.

Table 2. Decision making biases leading to entrepreneurial opportunity exploitation decisions

Factor	Frequency	Percent
Overconfidence	14	82.3%
escalation of commitment	11	64.7%
Planning fallacy	10	58.8%
Illusion of control	11	64.7%

Category 1: Overconfidence

Overconfidence was a bias identified in our study leading to exploitation decision. For example one of the interviewees said: “My judgment and personal knowledge about market helped me to understand the potential of the opportunity and I decided to pursue it.”

Overconfidence was introduced as the miscalibration of accuracy in clinical psychologists’ judgments (Oaskamp, 1965). From then on, overconfidence has been widely studied and recognized as one of the most common decision making biases in individuals. Bazerman (1994) was one of the first to study overconfidence in the field of organizations and businesses. He defined overconfidence as “the tendency of individuals to overestimate the correctness of their initial estimations in answering average to difficult questions”. In the field of entrepreneurship, overconfidence is by far the most-researched as well as the most-common decision making bias among entrepreneurs. Scholars in the field of entrepreneurship have focused on the factors influencing overconfidence and its subsequent effects on entrepreneurial decisions. For example, Cooper, Woo and Dunkelberg (1988) identified overconfidence as the main factor behind entrepreneurs’ unprepared entries. This was corroborated by Koellinger, Minniti and Schade (2007), who, after dividing overconfidence into three categories of overestimating one’s judgment, inaccuracy in judging one’s predictions and overestimation of one’s skills, concluded that overconfidence is the main driver of entrepreneurial entry decisions. Apart from this, Rietveld et al (2013) concluded that entrepreneurs are generally more overconfident than others. Regarding the main roots of overconfidence, Forbes (2005) did a comprehensive study to identify the main factors influencing overconfidence in entrepreneurs and came to the conclusion that that the younger entrepreneurs, the entrepreneurs managing smaller enterprises and also entrepreneurs higher in self-efficacy the ones having founded their businesses by themselves are more overconfident than others. in general, overconfidence is the most common decision making bias in entrepreneurs.

Category 2: escalation of commitment

Escalation of commitment was another bias identified in our sample leading to exploitation decision. For example one of our interviewees commented: “... In this process, I rely on my team as well as influential networks in my business. Thus, when I decided to concentrate on that opportunity, I hardly changed my decisions, because it will definitely tarnish my reputation”.

Allocation of various resources to the courses of actions that don't seem to have any chance of success, especially after getting corroborating feedbacks, has been defined as escalation of commitment to a course of action (Staw and Ross, 1987). This bias is so common among entrepreneurs, mostly because of the emotional attachment entrepreneurs have with their ventures. Escalation of commitment is a specific cognitive characteristic of entrepreneurs which is caused by a

combination of sociological and psychological factors (Baron, 1998, pp.287-287). Feeling personal responsibility for initial decision, reluctance and avoidance to make the cognitive efforts all over again, worrying about loss of face among others (most importantly stakeholders) and last but not least the desire to justify one's initial decisions are the main factors affecting escalation of commitment in entrepreneurs (Staw and Ross 1987; Bobocel and Meyer 1994). Regarding decisions to exploit opportunities, it seems probable that once the entrepreneurs make the decision to exploit, they put all their efforts behind their decision and are reluctant to change it.

Category 3: planning fallacy

Planning fallacy was another bias identified in our study leading to exploitation decisions. For example one of our entrepreneurs observed: "because we face tremendous competition in our industry, we need to make rapid decisions based on various predictions. These predictions are most of the time optimistic, otherwise, there is no chance of fulfilling our projects properly. I personally tend to ignore past failures and be future-oriented...".

Choosing strategies and planning without evaluating one's weaknesses and strengths and assessing the situation leads to planning fallacy, one of the most common decision making biases among entrepreneurs (Kahneman and Lovallo, 1993). Because entrepreneurs are forward looking and inclined to ignore relevant past experiences by concentrating on the future as unique events, they fall prone to planning fallacy. On the other hand, entrepreneurs tend to attribute positive results to their own skills and ascribe negative outcomes to factors beyond their controls, therefore, becoming more susceptible to planning fallacy (Baron, 1998, pp 286-287). Planning fallacy could play important roles in entrepreneurial opportunity exploitation decisions by making entrepreneurs overestimate their abilities or underestimate the effects of various impediments.

Category 4: illusion of control

Illusion of control was another bias identified in the interviewees leading to exploitation decision. For example one of the interviewees said: "our business environment is so chaotic and unpredictable that we need to make flexible decisions that could be changed and revised in order to cope with environmental instability. Regarding the decisions to exploit my opportunity, I assumed that my abilities and my firm's expertise and resources could overcome unpredictable environmental changes. Therefore, I presume that I can control the environment in the future. And exploit the desired opportunity".

When individuals consider that they have control over situations beyond their control, especially situations that chance and other factors play crucial roles, they are susceptible to illusion of control (Shefrin, 2007). Illusion of control is a very important factor causing managerial optimistic predictions (Duhaime and Schwenk, 1985). By causing entrepreneurs to underestimate the risks regarding new venture creation decisions, illusion of control (Simon, Houghton and Aquino, 2000), illusion of control plays important roles in entrepreneurs' decisions, too.

5. Discussion and Implication for Future Studies

Coming to the conclusion that decision making biases play substantial roles in the process of entrepreneurs' opportunity exploitation, this paper conducted a qualitative content analysis approach to study and scrutinize this topic. According to our findings, overconfidence, escalation of commitment, planning fallacy and illusion of control are the decision making biases in the process of entrepreneurs' opportunity exploitation decisions. This paper corroborated this hypothesis that entrepreneurs are prone to decision making biases. Also, some well-known and well-researched biases which have been studied in other phases of entrepreneurship-related processes proved to be influential in opportunity exploitation decisions, too.

In the followings we render some useful implications for future researches.

- Because this paper was the first to study entrepreneurial decision making biases in the process of opportunity exploitation by conducting a qualitative research method, it is suggested that future researches also use quantitative research methods to study the matter, too.
- Though the main concentration of this paper was studying biases in opportunity exploitation phase, we emphasize the importance of opportunity evaluation as a very important phase before the final decision whether or not to exploit. Thus, we suggest that future papers study the factors influencing opportunity evaluations by entrepreneurs.
- Biases may have major effects in the process of opportunity exploitation. These effects and consequences could be studied in the future. For example, overconfidence could be fatal for entrepreneurs by making them overestimate their resources to exploit opportunities and therefore lead to their failure. This paper's main concern was to identify the biases in the process of entrepreneurs' opportunity exploitation decisions. Future papers better study the effects of these biases on entrepreneurial decisions.

- Given the fact that entrepreneurs need to make many of their important decisions with little information as well as scanty data, thus relying on heuristics (cognitive short-cuts) so as to make decisions, and by considering the established fact that there is a strong interconnection between heuristics and biases, we suggest that future papers not only study the influence of heuristics in various phases of entrepreneurial opportunity-related activities, but also the interconnections of heuristics and biases in the process of opportunity expl
- Though the study of interconnections between the biases as well as their influences on each other was not the goal of this paper, some cues indicated that the biases may influence the genesis of each other. For example, escalation of commitment could be influenced by overconfidence. These alleged relationships better be studied in future papers.

References

- Baron, R. A. (1998). Cognitive mechanisms in entrepreneurship: why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, 13, 275–294. [http://dx.doi.org/10.1016/S0883-9026\(97\)00031-1](http://dx.doi.org/10.1016/S0883-9026(97)00031-1)
- Bazerman, M. H. (1994). *Judgment in Managerial Decision Making*. New York: Wiley.
- Blanchflower, D., Oswald, A., & Stutzer, A. (2001). Latent entrepreneurship across nations? *European Economic Review*, 45, 680-691.
- Bobocel, D. R., & Meyer, J. P. (1994). Escalating commitment to a failing course of action: Separating the roles of choice and justification. *Journal of Applied Psychology*, 79(3), 360. <http://dx.doi.org/10.1037/0021-9010.79.3.360>
- Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: biases and heuristics in strategic decision-Making. *Journal of Business Venturing*, 12, 9-30. [http://dx.doi.org/10.1016/S0883-9026\(96\)00003-1](http://dx.doi.org/10.1016/S0883-9026(96)00003-1)
- Camerer, C., & Lovallo, D. (1999). Overconfidence and excess entry: An experimental approach. *American Economic Review*, 89(1), 306-318. <http://dx.doi.org/10.1257/aer.89.1.306>
- Choi, Y. R., & Shepherd, D. A. (2004). Entrepreneurs' Decisions to Exploit Opportunities. *Journal of Management*, 30(3), 377–395. <http://dx.doi.org/10.1016/j.jm.2003.04.002>
- Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' perceived chances for success. *Journal of Business Venturing*, 3(2), 97-108. [http://dx.doi.org/10.1016/0883-9026\(88\)90020-1](http://dx.doi.org/10.1016/0883-9026(88)90020-1)
- Creswell, J. W. (2005). *Educational Research: Planning, Conducting, and Evaluating. Quantitative and Qualitative Research* (2nd edition).
- Dimov, D., & Shepherd, D. (2005). Human capital theory and venture capital firms: exploring “home runs” and strike outs”. *Journal of Business Venturing*, 20, 121.
- Duhaime, I. M., & Schwenk, C. R. (1985). Conjectures on cognitive simplification in acquisition and divestment decision making. *Academy of Management Review*, 10(2), 287-295.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, 14(4), 532-550.
- Forbes, D. P. (2005). Are some entrepreneurs more overconfident than others? *Journal of Business Venturing*, 20(5), 623-640. <http://dx.doi.org/10.1016/j.jbusvent.2004.05.001>
- Frese, M., M., & Ombach, M. (2000). How to plan as a small scale business owner: Psychological process characteristics of action strategies and success, *Journal of Small Business Management*, 38, 1-18.
- Guthrie, J., Johanson, U., Bukh, P. N., & Sa ́nchez, P. (2003). Intangibles and the transparent enterprise: new strands of knowledge. *Journal of Intellectual Capital*, 4(4), 429-440. <http://dx.doi.org/10.1108/14691930310504491>
- Harris, R. (1998). Introduction to decision making. *Home page: http://www.vanguard.edu/rharris/crebook5.htm.[Visited 14 October 2000].*
- Haynie, J. M., Shepherd, D. A., & McMullen, J. S. (2009). An opportunity for me? The role of resources in opportunity evaluation decisions. *Journal of Management Studies*, 46, 337-361. <http://dx.doi.org/10.1111/j.1467-6486.2009.00824.x>
- Kahneman, D., & Lovallo, D. (1993). Timid choices and bold forecasts: A cognitive perspective on risk –taking. *Management Science*, 39(1), 17-31. <http://dx.doi.org/10.1287/mnsc.39.1.17>
- Koellinger, P., Minniti, M., & Schade, C. (2007). “I think I can, I think I can”: Overconfidence and entrepreneurial behavior. *Journal of Economic Psychology*, 28(4), 502-527. <http://dx.doi.org/10.1016/j.joep.2006.11.002>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications, Inc.

- Manimala, M. J. (1992). Entrepreneurial Heuristics: a comparison between high PI and low PI venture. *Journal of Business Venturing*, 7(6), 477-504. [http://dx.doi.org/10.1016/0883-9026\(92\)90021-I](http://dx.doi.org/10.1016/0883-9026(92)90021-I)
- Marshall, M. N. (1996). The key informant technique. *Fam Pract*, 13, 92-97. <http://dx.doi.org/10.1093/fampra/13.1.92>
- Miles, M., & Huberman, A. M. (1994). *Qualitative Data Analysis*. Thousand Oaks, CA: Sage Publications.
- Milne, M., & Adler, R. (1999). Exploring the reliability of social and environmental disclosures content analysis. *Accounting, Auditing and Accountability Journal*, 12(2), 237-256. <http://dx.doi.org/10.1108/09513579910270138>
- Oskamp, S. (1965). Overconfidence in Case-Study Judgments, *Journal of Consulting Psychology*, 29(3), 261–265. <http://dx.doi.org/10.1037/h0022125>
- Palich, L., & Bagby, D. (1995). Using Cognitive theory to explain entrepreneurial risk – talking: challenging conventional wisdom. *J. Bus. Venturing*, 10(6), 425–438. [http://dx.doi.org/10.1016/0883-9026\(95\)00082-J](http://dx.doi.org/10.1016/0883-9026(95)00082-J)
- Rietveld, C. A., Groenen, P. J., Koellinger, P. D. P., Loos, M. J. H. M., & Thurik, A. R. (2013). *Living Forever: Entrepreneurial Overconfidence at Older Ages* (No. ERS-2013-012-STR). ERIM Report Series Research in Management.
- Robson, C. (1997). *Real World Research*, Blackwell, London.
- Schilling, J. (2006). On the pragmatics of qualitative assessment: Designing the process for content analysis. *European Journal of Psychological Assessment*, 22(1), 28-37. <http://dx.doi.org/10.1027/1015-5759.22.1.28>
- Shapiro, G., & Markoff, J. (1997). ‘A Matter of Definition’ in C.W. Roberts (Ed.). *Text Analysis for the Social Sciences: Methods for Drawing Statistical Inferences from Texts and Transcripts*. Mahwah, NJ: Lawrence Erlbaum Associates
- Shefrin, H. (2007). *Behavioral Corporate Finance: Decisions that Create Value*. McGraw-Hill International Edition.
- Shepherd, D. A., Williams, T. A., & Patzelt, H. (2014). Thinking about entrepreneurial decision making: Review and research agenda. *Journal of Management, forthcoming*. <http://dx.doi.org/10.5465/ambpp.2014.10205abstract>
- Silverman, D. (1997). *Interpreting Qualitative Data*, SAGE, London.
- Simon, M., Houghton, S. M., & Aquino, K. (2000). Cognitive biases, risk perception, and venture formation: How individuals decide to start companies. *Journal of business venturing*, 15(2), 113-134. [http://dx.doi.org/10.1016/S0883-9026\(98\)00003-2](http://dx.doi.org/10.1016/S0883-9026(98)00003-2)
- Staw, B. M., & Ross, J. (1987). Behavior in escalation situations: Antecedents, prototypes, and solutions. In L.L. Cummings and B.M. Staw, (eds.), *Research in Organizational Behavior* (Vol. 9). Greenwich, CT: JAI Press.
- Tesch, R. (1990). *Qualitative Research: Analysis Types & Software Tools*. Bristol, PA: Falmer Press.
- Weber, R. P. (1990). *Basic Content Analysis*. Newbury Park, CA: Sage Publications.
- Weerawardena, J., & Mort, G. S. (2006). Investigating social entrepreneurship: A multidimensional model. *Journal of world business*, 41(1), 21-35. <http://dx.doi.org/10.1016/j.jwb.2005.09.001>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).