Journal of Business Venturing 28 (2013) 397–412

Contents lists available at SciVerse ScienceDirect

Journal of Business Venturing

The influence of dispositional affect and cognition on venture investment portfolio concentration ☆

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ARTICLE INFO

Article history:
Received 7 December 2010
Received in revised form 16 February 2012
Accepted 24 February 2012
Available online 15 June 2012

Field Editor: M. Frese

Keywords:
Venture investment decisions
Dispositional affect
Cognition

ABSTRACT

We explore how an investor's dispositional affect and cognitive style influence venture investment portfolio concentration. Based on a field study using a sample of 128 judges from a business plan competition, we find that high positive affectivity investors construct more concentrated investment portfolios than their low positive affectivity counterparts, whereas high negative affectivity investors construct more diversified investment portfolios than their low negative affectivity counterparts. Further, investors who rely on analytical decision making display a weaker relationship between negative affectivity and investment diversification whereas investors who rely on emotion-based decision making display a stronger relationship between positive affectivity and investment concentration.

1. Executive summary

Venture investment decision making is an important topic in entrepreneurship because it constitutes a process whereby resources and opportunities are matched. It has implications for both entrepreneurs and investors who seek to improve their resource acquisition and allocation activities, respectively. Although prior studies have shown how an investor's usage of heuristics influences independent opportunity evaluations or how an investment firm's characteristics influence its portfolio construction, they have overlooked how individual investors construct their venture investment portfolios.

We explore how dispositional affect and cognitive style influence a venture investor's portfolio composition. Because affective experience influences behavior immediately (e.g., Keltner and Lerner, 2010), we first consider dispositional affect influencing the extent to which venture investors concentrate their portfolios. We argue that because high positive affectivity venture investors, i.e., those who frequently experience positive mood and emotion, are more likely to rely on heuristic-based decision making and positively approach and evaluate information (e.g., Ambady and Gray, 2002), they are less likely to carefully evaluate all investment opportunities, and overestimate the expected value of a few selected opportunities. Thus, they tend to concentrate their investment portfolio compared with their low positive affectivity counterparts. Likewise, because high negative affectivity venture investors, i.e., those who frequently experience negative mood and emotion, tend to rely on analytics-based decision making, and negatively approach and evaluate information (e.g., Forgas, 1994), they are more likely to use multiple criteria to evaluate venture investment opportunities, recall, and evaluate information related to those opportunities in a negative way. As a result, they tend to underestimate

☆ We thank the University of Washington Foster School of Business and Peking University HSBC Business School for their financial support. We thank the Center of Innovation and Entrepreneurship at the University of Washington for their assistance in data collection at the Business Plan Competition. We also thank Warren Boeker, David Gomulya, Tori Yu-wen Huang, Michael Johnson, and Terry Mitchell for their valuable comments on previous versions of this paper. Our paper benefited greatly from Field Editor Michael Frese and four anonymous reviewers.
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doi:10.1016/j.jbusvent.2012.02.006

the expected value of opportunities that they evaluate and diversify their investment portfolio to mitigate their risk as compared with low negative affectivity counterparts.

Moreover, human judgment and decision making are influenced by two distinct yet coexisting processes. System 1 processing is a rapid mechanism in human decision making, leading to heuristic-based decision making, whereas System 2 processing is a slower mechanism in human decision making, leading to analytical decision making (Evans, 2008; Kahneman and Klein, 2009). Individuals vary considerably in their propensities to rely on either process (e.g., Allinson and Hayes, 1996; Epstein et al., 1996). Some individuals with a high need for cognition enjoy thinking and rely on analytical decision making (Cacioppo and Petty, 1982; Pacini and Epstein, 1999). This tendency will result in a more diversified investment portfolio and weaken the relationship between dispositional affect and investment concentration. In contrast, emotion-based decision making represents an individual propensity to rely on affective experience when making decisions (Barchard, 2001). Thus, the relationship between dispositional affect and investment concentration is stronger for those investors who rely on affective experience to make decisions. Using data from a major business plan competition, we generally find support for our predictions.

This study provides insights on venture investment decision by investigating personality traits influencing an investor's portfolio composition. Further, our findings provide practical implications for both venture investors and entrepreneurs seeking to improve their investment allocation and funding strategies, respectively.

2. Introduction

Prior studies on venture investment decisions have typically taken two approaches. A first set of studies takes venture opportunities as a unit of analysis and finds that an investor's use of heuristics,[1] elicited by such factors as confidence level, personal background, and personal relationships, influences venture evaluations (e.g., De Clercq and Sapienza, 2006; Zacharakis and Shepherd, 2001). Despite their valuable insights, these studies overlook the inter-dependencies among evaluations of concurrent opportunities. In real life, venture investors typically evaluate multiple opportunities over a short period of time and allocate limited resources to a few selected ventures (Zacharakis and Meyer, 2000; Zacharakis and Shepherd, 2001).

Another set of studies takes an investment firm's portfolio as a unit of analysis and finds that investment firm characteristics such as experience, expertise, and stage-focus influence the composition of investment portfolios (Dimov et al., 2007; Gupta and Sapienza, 1992; Han, 2009). A firm's investment portfolio, however, is the result of complex social interactions whereby multiple actors make collective decisions over a long period of time (e.g., Patzelt et al., 2009). As a result, the findings from these studies cannot be easily applied to the formation of an individual investor's portfolio. In many contexts, it is the individuals (e.g., angel investors or managers of venture investment firms) who make venture investment decisions.

In this study, we link individual investors to their investment behavior by exploring the influence of an investor's dispositional affect, an individual propensity to experience specific types of mood or emotions (Watson and Tellegen, 1999), and cognitive underpinnings on venture investment concentration. Based on the influence of dispositional affect on cognitive process and information evaluation, we first illustrate that high positive affectivity investors tend to concentrate their portfolio compared with low positive affectivity investors. We then show that high negative affectivity investors tend to diversify their portfolio compared with low negative affectivity investors.

Moreover, individuals differ in cognitive style, i.e., the way they process and utilize information (e.g., Allinson and Hayes, 1996). Such a difference may influence investment behavior and moderate the relationship between dispositional affect and investment concentration. A well-documented cognitive style is the need for cognition, reflecting an individual's propensity to enjoy and engage in thinking and analytical decision making (Cacioppo and Petty, 1982). Investors with a high need for cognition are more likely to evaluate the full set of investment opportunities. Thus, we argue that such investors are more likely to diversify their investment portfolio compared with investors with a low need for cognition. Further, we argue that varying propensities for employing cognition or emotion in decision making (Barchard, 2001; Cacioppo and Petty, 1982) will moderate the relationship between dispositional affect and investment concentration, such that the relationship becomes weaker for those with a high need for cognition and stronger for those who rely on their emotions when making decisions. Using data from a business plan competition at a major university in the U.S., our results generally support our predictions.

This study provides several insights. First, it contributes to venture investment decision research by exploring factors influencing an investor's portfolio composition. Prior studies have focused on factors that influence either independent evaluations of venture investment opportunities (e.g., De Clercq and Sapienza, 2006; Shepherd, 1999) or a firm's investment portfolio composition (e.g., Dimov et al., 2007; Patzelt et al., 2009). However, because real life venture investors often concurrently evaluate multiple investment opportunities (Zacharakis and Shepherd, 2001), our study provides insights on factors influencing how individual investors construct their investment portfolio.

Further, responding to the recent call for incorporating affect research in entrepreneurship (Baron, 2008; Foo, 2011), our study illustrates how dispositional affect can influence investment concentration and explain its boundary conditions. Our work also contributes to understanding how investment decisions can be predicted using theoretically relevant personality traits such as dispositional affect, need for cognition, and emotion-based decision making. Moreover, this study sheds light on dispositional affect research by showing how dispositional affect can influence investment behavior in a complex manner and that its impact is bounded by individual propensity for using cognition or emotion when making decisions.

[1] We define heuristics as simple mental shortcuts for making judgment and decisions that may lead to accurate or inaccurate outcomes (Kahneman and Klein, 2009; Tversky and Kahneman, 1974).