

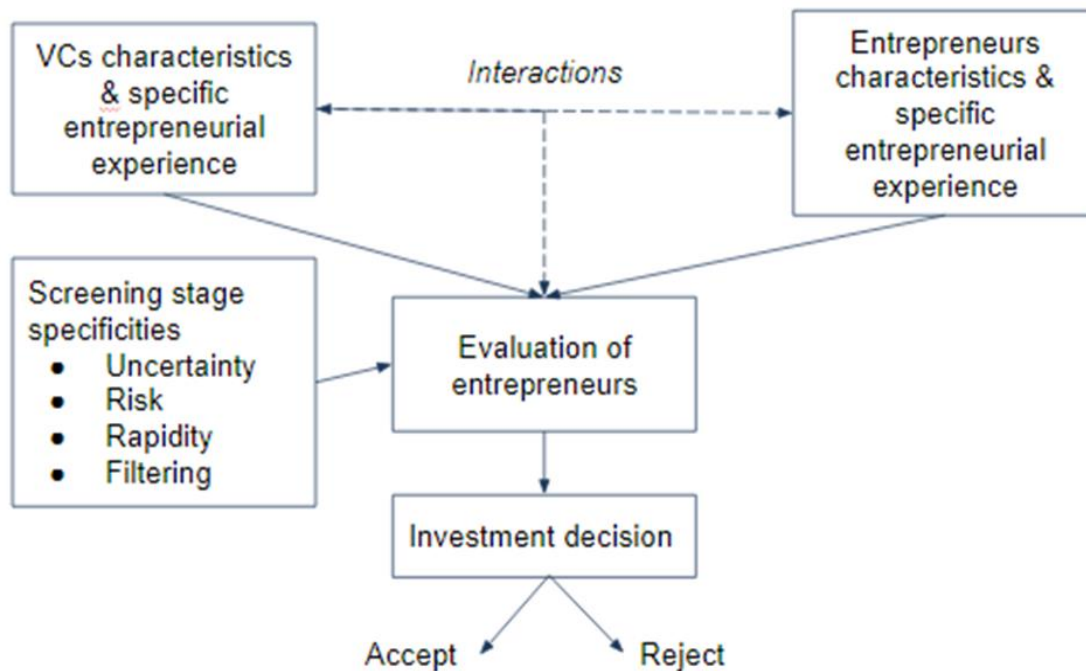
**Significance/implications for theory and practice.**

The unique contribution of this doctoral thesis is to go beyond existing research by providing a detailed and specified analysis of the role played by entrepreneurial experience, as opposed to other characteristics, in screening decisions considering the interactions between VCs and lead entrepreneurs. Our two-side approach, VCs (supply-side) and entrepreneurs (demand-side), provides a new perspective that augments existing studies on investment decisions (Rasmussen and Sorheim, 2012; Drover et al., 2017). Previous research on VCs' evaluation criteria has studied the criteria used in screening evaluations at the team level and remains fairly general, failing to distinguish specific entrepreneurial experience from other entrepreneurs' characteristics. Our study specifies VCs' preferences of lead entrepreneurs' entrepreneurial experience at a refined level. We clearly distinguish this experience among other characteristics of entrepreneurs used in screening evaluations. Further, we contribute to the literature on decision-making process by studying how VCs evaluate entrepreneurs depending on their own entrepreneurial experience. Thus, our doctoral thesis study offers answers to a number of relevant research questions about the relationship between entrepreneurial experience specificity and screening evaluations considering the interactions in the VC – entrepreneur dyad and, in the process, open promising avenues for future research.

We contribute to narrow down the research gap about the relationship between entrepreneurial experience specificity and screening evaluations considering the interactions in the VC – entrepreneur dyad, and, more generally, heuristics in decision-making processes. We provide a refined understanding of the criteria used to filter the set of ventures opportunities looking for investment that can increase entrepreneurs' chances of achieving external funding. Our results can help them to find how to reduce the causes for rejections at the very first stage of the venture capital application process. Reversely, an increased awareness of decision processes applied by investors at this stage can help them to improve the efficiency of their own heuristics. The allocation of venture capital towards new ventures will likely gain in economic efficiency and yield positive externalities because more entrepreneurs and investors will engage in developing successful and profitable businesses.

Our results also offer several interesting insights for VCs who want to get a deeper understanding of their decision-making and avoid making distorted screening decisions. Also, we potentially help entrepreneurs looking for VC financing in understanding their chances of overcoming the very first stage of the evaluation process and identify what are the most important attributes to maximize their odds of success at this stage.

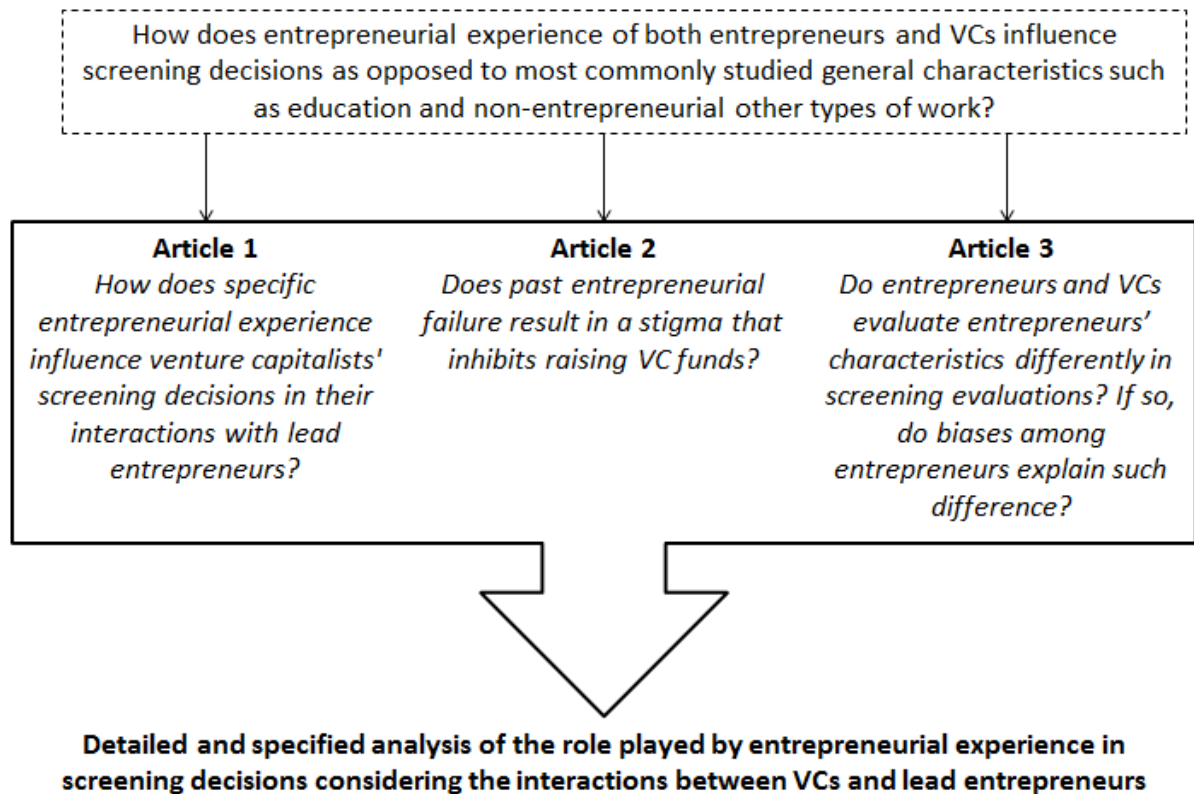
## Conceptual framework of drivers of the VC investment decision



### **Originality and innovation.**

Our core contribution is a step towards a line of research further exploring entrepreneurs' characteristics that may change the outcomes of VCs' screening decisions. We provide a way forward to theoretically and systematically think about how certain entrepreneurs may be better positioned to get funds from certain types of investors. In addition, we are among the first to empirically study similarity biases between the VC and the lead entrepreneur. This allows us to disentangle the effect of the mixture of several characteristics attached to several team members from the impact of the unique characteristics of the lead entrepreneur. We thus obtain a more accurate understanding on which specific characteristic really matters compared to trade-off decisions.

Overall, our research points out the importance and the specificity of entrepreneurial experience of both VCs and entrepreneurs, their interactions and the cognitive biases shaped by their respective experiences in explaining the screening decisions and its highly selective nature. Our doctoral thesis study is unique in that it offers answers to a number of still pending relevant research questions about the relationship between entrepreneurial experience specificity and screening evaluations considering the interactions in the VC – entrepreneur dyad and, in the process, open promising avenues for future research.



### **Appropriateness and application of the methodology.**

We undertake two empirical studies to find answers to our research questions with a quantitative and post-positivist approach where we first identify hypotheses based on theory from a literature review and test them against collected datasets of VCs and entrepreneurs. In conducting this doctoral thesis, we were particularly interested in unveiling which role human capital characteristics related to an entrepreneurial experience play in screening decisions and may act as a signal of quality of new ventures to VCs and then determine the follow-on stages of the assessment process.

In line with our research intent presented previously, we conducted a pilot exploratory study whose analysis was the basis on which we rely to set up a conjoint experiment. Complementary research design as the one we adopted is recommended when phenomena are complex and partially understood (Yin, 2013) and thus suited to our multidimensional research inquiry to understand how different human capital attributes of entrepreneurs and VCs drive the screening decisions and interact with each other. Our method for gathering data was based on interviews and surveys.


We investigated our research questions through a conjoint analysis decision-making experiment. Conjoint analysis is an appropriate technique to decompose the decisions into their component parts and analyze the cognitive process of decisions. The conjoint analysis simulates decision-making in real-time and minimizes the flaws inherent to the major part of in post-hoc studies due to retrospective biases in respondents' interpretations (Shepherd & Zacharakis, 1999). Such experiment technique has been increasingly used in investors' decisions research (Franke et al., 2006, 2008; Bruns et al., 2008; Lohrke et al., 2010; Murnieks et al., 2011; Drover, Wood, Zacharakis, 2017; Warnick et al., 2018). In experiments using conjoint analysis, respondents are presented with a series of hypothetical profiles that vary based on multiple combinations of the realizations of specified attributes and make a judgment on each profile. From these judgments,

assumptions can be advanced regarding the contribution of each attribute to with a given realization in the overall decision on a profile. We decided to design a conjoint experiment we regarded as the most appropriate methodological technique to find answers to our research questions. We then ran a HLM multi levels analysis (see Supportive materials for more details).

Sample of a fictive venture profile used in conjoint analysis

Venture 2			
	Key factor	CEO	CTO
1	Source of application	Personal network member referral	-
2	Seed-funding	Member of a recognized business angels' group	-
3	Age	33	31
4	Previous professional experience	2	3 years
5	Previous entrepreneurial experience as a founder	2	1
6	Previous entrepreneurial failure as a founder	2	0
7	Previous entrepreneurial experience as an employee	<1 year	0
8	Field of study	Business/Management	Engineering/IT
9	Level of education	University	University
10	Prior professional experience field	Consulting/Management	IT
11	Geographical origins	Rural area	Top 6 largest national cities

**GRADE**



lowest  1  2  3  4  5  6  7  8  9  10 highest

5

**Data and findings**

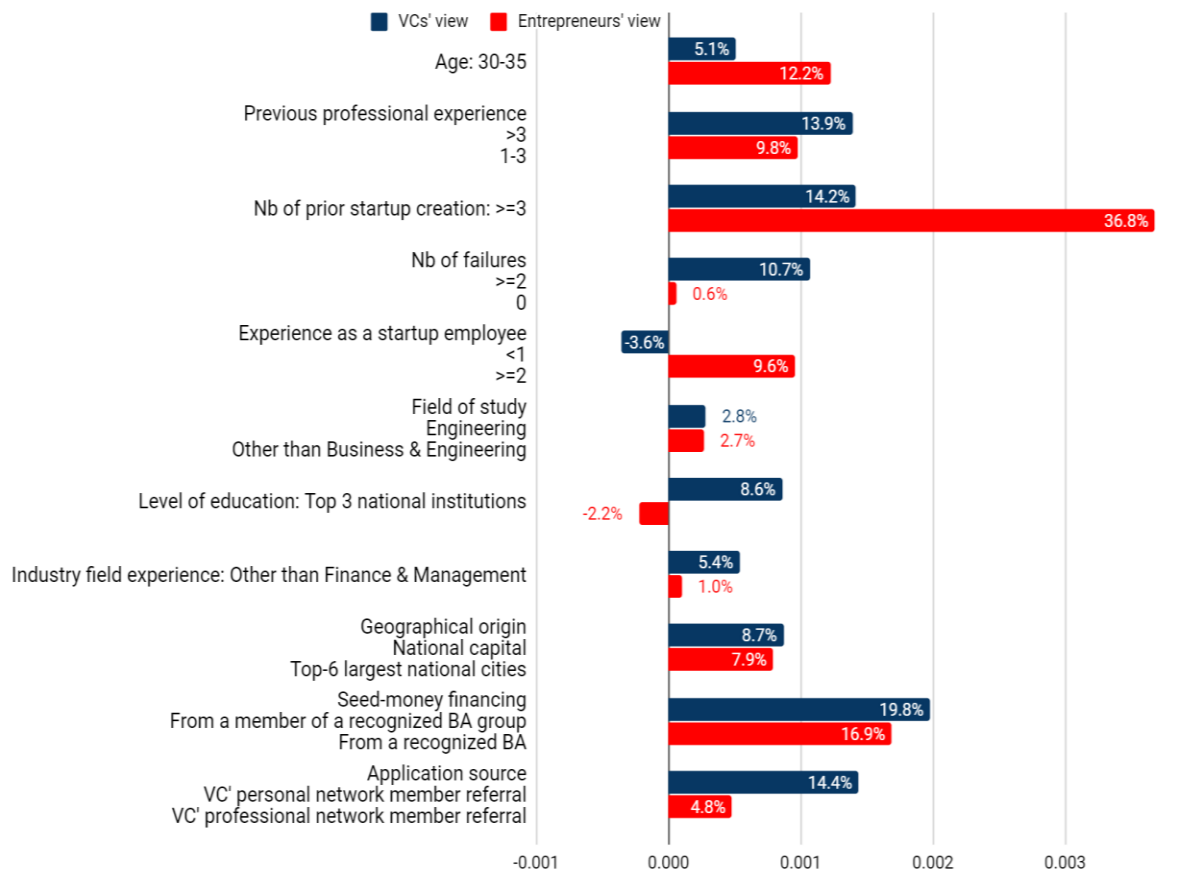
Our results show that if entrepreneurial experience drives primarily the screening decisions, personal VCs' characteristics influence their evaluations, notably toward entrepreneurs the most similar to themselves. We also find that entrepreneurs with failures are not blacklisted and are preferred to entrepreneurs without failure under some circumstances. When comparing VC's and entrepreneurs' evaluations, we find a divergence. Entrepreneurs attribute a larger importance to the types of entrepreneurial experiences they can control than VCs. We suggest that biases caused by their exposition to hubris explained such divergence.

# Emerald Research Awards

The purpose of this study was to explore how the entrepreneurial experience of lead entrepreneurs influences VC screening decisions and the similarity-attraction bias between lead entrepreneurs and VCs. Our findings reveal that entrepreneurs' experience in serial startup creation is influential on VCs evaluations and on their judgment of generic human capital (level of education), and conveys information about the quality of the venture and its potential for success. Furthermore, VCs favor lead entrepreneurs who share the same experience in raising seed-money as they did. Together, these results deepen our understanding by exploring how unique entrepreneurial experience characteristics across lead entrepreneurs and VCs shape early-stage investment decisions. Our results have implications for research on VCs decision-making and, more generally, biases in decision-making.

Our results show that if entrepreneurial experience drives primarily the screening decisions, personal VCs' characteristics influence their evaluations, notably toward entrepreneurs the most similar to themselves. We also find that entrepreneurs with failures are not blacklisted and are preferred to entrepreneurs without failure under some circumstances. When comparing VC's and entrepreneurs' evaluations, we find a divergence. Entrepreneurs attribute a larger importance to the types of entrepreneurial experiences they can control than VCs. We suggest that biases caused by their exposition to hubris explained such divergence. Overall, our research points out the importance and the specificity of entrepreneurial experience of both VCs and entrepreneurs, their interactions and the cognitive biases shaped by their respective experiences in explaining the screening decisions and its highly selective nature. We contribute to narrow down the research gap about the relationship between entrepreneurial experience specificity and screening evaluations considering the interactions in the VC – entrepreneur dyad, and, more generally, heuristics in decision-making processes.

## Comparison VCs/Entrepreneurs – Benefit contribution of entrepreneurs' characteristics



Profiles of the ideal lead entrepreneur – comparison VCs' to entrepreneurs' views

<b>Entrepreneur characteristic</b>	<b>VCs' view</b>	<b>Entrepreneurs' view</b>
<i>Age</i>	30-35 years old	30-35 years old
<i>Previous non-startup professional experience</i>	>=3 years	1-3 years
<i>Prior startup creation</i>	>=3	>=3
<i>Prior failure</i>	>=2	0
<i>Experience as a startup employee</i>	0-1 year	<=2 years
<i>Academic background</i>	Engineering	Different than Business and Engineering
<i>Academic level</i>	Top-3 national higher education institution	Top-3 national higher education institution
<i>Prior work experience</i>	Different industry than Management and Finance	Different industry than Management and Finance
<i>Geographical origin</i>	National capital	Top-6 largest national cities excluding the capital
<i>Seed-funding</i>	From a member of a recognized business angels group	From a recognized business angel
<i>Referral</i>	Member of the personal network of the VC	Member of the professional network of the VC

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## Supporting materials

### *Appendix*

#### **Appendix 1** - HLM analyses specifications

In our model, statistically significant coefficients ( $b_i$ 's) signal that the associated characteristic plays a significant role in the evaluation of entrepreneurs. For the full model, we integrated our interacting variables at level-1 plus a series of level-2 equations to represent the experience effects of the characteristics that were maintained constant for each of our 52 participants. To illustrate, we explicit the level-2 equation applied to test for hypothesis 2: the effect of similarity in the startup creation between the fictive entrepreneur (here denoted by  $b_3$ ) and the VC participant (denoted by  $y_{31}$ ).

#### *Full model*

##### Level 1:

VC assessment= $b_0$

+  $b_1$  (entrepreneur non-entrepreneurial work experience)

+  $b_2$  (entrepreneur startup creations)

+  $b_3$  (entrepreneur failure)

+  $b_4$  (entrepreneur education level)

+  $b'2$  (entrepreneur startup creations x entrepreneur failure)

+  $b'3$  (entrepreneur education level x entrepreneur failure)

+error

To investigate our hypotheses 2 and 3, we search for the significance of the coefficients  $b'2$  and  $b'3$ , denoting the presence of a moderating effect.

##### Level 2:

$b_3 = y_{30} + y_{31}$  (VC startup creations) +  $y_{32}$  (VC failure) +  $y_{33}$  (VC gender) +  $y_{34}$  (VC investment experience) + error

$b'2 = y'20 + y'21$  (VC startup creations) +  $y'22$  (VC failure) +  $y'23$  (VC gender) +  $y'24$  (VC investment experience) + error

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$b'3 = y'30 + y'31$  (VC startup creations) +  $y'32$  (VC failure) +  $y'33$  (VC gender) +  $y'34$  (VC investment experience) + error

In our experiment, statistically significant coefficients ( $\gamma$ 's) signal that the associated characteristic significantly interacts with the corresponding level-1 characteristic. Thus, to test for our hypotheses 4.a and 4.b, we explore the significance of the coefficients  $\gamma_{31}$  and  $\gamma_{32}$ .