FISEVIER

Contents lists available at ScienceDirect

Journal of Business Venturing Insights

journal homepage: www.elsevier.com/locate/jbvi



When stereotypical gender notions see the light of day, will they burst? Venture capitalists' gender constructions versus venturing performance facts



Malin Malmström^{a,*}, Aija Voitkane^a, Jeaneth Johansson^{a,b}, Joakim Wincent^a

^a Department of Economics and Technology and Society, Luleå University of Technology and Hanken School of Economics, SE-971 87 Luleå, Sweden ^b Halmstad University, SE-971 87 Luleå, Sweden

ABSTRACT

Although often discussed, there has been limited effort to match venture capitalists' construction of gender notions with specific facts about the entrepreneurs' venturing activities. This study shows how stereotypical gender notions of both men and women entrepreneurs are embedded in venture capitalists' assessments and analyses as well as explores whether or not these notions have substance based on actual performance. Drawing on interview data and statistical analysis of objective key performance information from accounting reports, we identify four myths in the evaluations of 126 venture capital applications for governmental capital that do not have any significant empirical substance. We discuss these findings' implications for the study of myths in women's entrepreneurship.

1. Introduction

Financial resources are essential for engaging in entrepreneurial activity, which has led many researchers to explore entrepreneurial finance distribution processes, including the effects of gender inequality in these processes. The vast majority of these studies focusing on gender equality show that women entrepreneurs struggle to obtain equal access to finance compared to their male counterparts. For several years in a row, Sweden has ranked number one on the EU Gender Equality Index. However, statistics show that women-owned businesses, which account for one-third of Swedish businesses, are not granted proportional governmental venture financing as men-owned businesses. In fact, women-owned businesses receive much less: only 13–18% of government funding. This percentage is remarkable since Swedish government venture capitalists have to adhere to national and European equality regulations when making decisions of which entrepreneurs to finance.

In the same way, previous studies have found that despite similar efforts among women and men entrepreneurs in seeking funding, women experience greater difficulties in obtaining funding for their ventures (Brush et al., 2006; Eddleston et al., 2016; Orser et al., 2006; Verheul and Thurik, 2001). Research has suggested that financiers evaluate men entrepreneurs more favorably than women entrepreneurs and that financiers perceive women-owned ventures to be less legitimate and riskier investments than those owned by men (Greene et al., 2001; Becker-Blease and Sohl, 2011). Research has linked such perceptions to individuals' tendency to characterize entrepreneurship as a masculine domain (Bardasi et al., 2011). Scholars suggest that financiers' gender perceptions stem from the fact that most high-profile entrepreneur role models are men (Ahl and Marlow, 2012), and financiers tend

E-mail addresses: malin.malmstrom@ltu.se (M. Malmström), aija.voitkane@ltu.se (A. Voitkane), jeaneth.johansson@ltu.se (J. Johansson), joakim.wincent@ltu.se (J. Wincent).

^{*} Corresponding author.

to believe that men are more entrepreneurial and growth-oriented than women (Bird and Brush, 2002; De Bruin et al., 2007; Eddleston et al., 2016). These myths/notions held by financiers regarding women entrepreneurs and their venturing associate with the financing bias. To date, researchers have tried to debunk these myths/notions with national statistics on women's venturing (e.g., Brush et al., 2001; Gatewood et al., 2009). Although we have gained important insights from this line of research, there are still important pieces missing. First, research on gendered myths/notions has focused on debunking myths about women but has missed debunking myths about men. Meanwhile, the largest investments are made in men entrepreneurs' ventures (Brush et al., 2014), and we lack an understanding of what notions underlie such financing discrepancy. By investigating myths surrounding both women and men entrepreneurs, we stand a better chance of advancing knowledge of gender in entrepreneurship. Second, to our knowledge, no previous study has matched financiers' construction of gender notions with specific facts about the same entrepreneurs' venturing activities being assessed. Expressed differently, specific statistics linked to the settings where the gender notions are constructed have, to our knowledge, not been used. With statistics specific to these settings, we are more likely to dispel discriminatory gender notions. Consequently, drawing on role congruity theory, we reveal stereotypical notions constructed by Swedish venture capitalists about women and men entrepreneurs who applied for governmental finance, and we challenge these stereotypical notions with counter facts from annual reports detailing women's and men's venturing performance.

2. A brief overview of role congruity and gender stereotypes in financing entrepreneurship

When financiers assess entrepreneurs applying for finance, they try to categorize the entrepreneurs and their venturing based on their particular characteristics. In doing so, they construct meaning of entrepreneurs' venturing to understand the investment potential.

As gender is by far the strongest basis to categorize individuals, it is likely that the entrepreneurs' gender will be a strong factor in predictions of their venturing potential (Fiske et al., 1991; Stangor et al., 1992; van Knippenberg et al., 1994). Consequently, and in line with role congruity theory, notions about women and men are automatically activated in financiers' minds when they identify the gender of an entrepreneur they are assessing (Banaji and Hardin, 1996; Blair and Banaji, 1996; Eagly, 1987; Eagly et al., 2000). While women and men are expected to behave in ways that "match" their gender roles (Eagly and Karau, 2002; Balachandra et al., 2017), there is an incongruity between the behavior expected of women and the strongly masculine behaviors expected in successful entrepreneurship (e.g., Glick and Fiske, 1996; Spence and Helmreich, 1978; Cliff et al., 2005; Williams and Best, 1990). Women entrepreneurs thus likely embody myths regarding the incompatibility between being a woman and achieving venture success, which are transferred into financiers' decision making and can by default make financiers reluctant to invest in women's ventures (García and Welter, 2013; Lewis, 2006 Malmström et al. 2017a, 2017b). Women entrepreneurs may therefore face difficulties in gaining credibility as entrepreneurs because different standards are used to evaluate their performance (Ahl, 2006; Bruni et al., 2004; Eagly and Karau, 2002; Gupta et al., 2009).

While early studies focused on identifying and exploring general assumptions about women entrepreneurs and their ventures as well as finding the "truth" behind such assumptions by comparing women and men entrepreneurs as well as their ventures, newer research has advanced the discourse by focusing on dispelling myths with facts, such as national statistics on women's ventures (Brush et al., 2001). Some of the more common myths that have been challenged with facts include the notions that women's ventures underperform (Marlow and McAdam, 2013; Zolin et al., 2013), women are risk averse (Marlow, 2015; Shapiro et al., 2015), and women's ventures require less funding (Gatewood et al., 2009). However, there is a lack of empirical evidence covering the construction of stereotypical notions of both women and men and a lack of empirical insights into counter facts tied to a specific decision context in which stereotypical gender notions are constructed. By challenging notions performed in a group of financiers with facts of actual venturing performance, we may be able to see these notions in their true colors.

3. Method

This study combines qualitative methods for studying governmental venture capitalists' construction of stereotypical gender notions in their assessment work with quantitative methods for testing these notions against performance facts using accounting information. We designed our study to match governmental venture capitalists' specific construction of notions regarding women's and men's venturing with venturing performance data of the exact same women and men extracted from their annual reports. The advantage with the governmental venture capitalist data used for this paper is that it addressed targeted calls for similar types of venturing and ensures sample homogeneity. We performed our analyses in two steps: first, we conducted qualitative content analyses of interviews with governmental venture capitalists, and second, we conducted quantitative statistical analyses comparing ventures on different dimensions.

3.1. Data collection and analyses

We studied how 11 Swedish governmental venture capitalists (four women and seven men) from two governmental organizations in Sweden constructed notions of gender in association with their assessments of 126 venture applications, of which 43% were owned/led by women and 57% were owned/led by men. The assessment process relied on written material, such as a standard application form filled in by the entrepreneur, and additional standard documents, such as annual reports and product folders. There were no oral pitches in this process. First, we collected data through interviews with the venture capitalists about their assessment work for the 126 venture applications. Our general set of questions were "What type of ventures do you aim to finance?"; "How much

financing do you award women and men entrepreneurs?"; "Why do you think the distribution of finance looks like that?"; and "Based on your experience, are there any differences between women and men entrepreneurs?" The specific questions regarding individual applications were "What were the reasons for your assessment of the application?"; "What were the strengths/weaknesses or pros/ cons of the application?"; and "What is your perception of how the venture is running?" Each interview lasted an average of 95 min and aimed to capture the venture capitalists' general perceptions of entrepreneurs as well as their assessments of each individual venture application. All interviews were recorded, transcribed, and coded with the support of the qualitative software NVivo 10. In this process, we identified the presence of gender notions, which we categorized into four main gender notions. We first sorted the transcribed material into assessments of women's and men's ventures, respectively, and then uploaded the assessments in NVivo. At first, we screened the material to grasp the general picture of what types of notions the governmental financiers constructed and what nodes were created. Following guidelines from Gioia et al. (2013), we grouped statements into categories, which revealed the four main stereotypical gender notions, and then quotes were categorized accordingly. Second, we collected annual report information for the corresponding 126 ventures from a secondary database (Retriever Business). Third, relevant key performance indicators and accounting information were selected from the annual reports to test each notion. We statistically analyzed the data by comparing the means of women's and men's venturing. The results of the statistical analyses were used to evaluate the extent to which the notions were corroborated by actual venturing performance information, enabling us to conclude whether myths or facts influence financial decision making among governmental venture capitalists.

4. Results

4.1. Observing notions

The results reveal important differences in how financiers discuss ventures' potential based on gender. The general notions of entrepreneurs we identified among the financiers are that (1) women are cautious and risk averse whereas men are eager to go and test their ideas, (2) women are reluctant to grow their businesses whereas men are willing to grow their businesses, (3) women do not have resources to engage in high growth whereas men have resources to engage in high growth, and (4) women's ventures underperform whereas men's ventures perform well. Below, we present how financiers construct these notions of women and men entrepreneurs' venturing.

4.1.1. Notion 1: Women are cautious and risk averse whereas men are ambitious and risk-taking

One of the most commonly performed notions among the financiers regards women being cautious and risk averse. The construction of this notion was induced by characterizing women as being clearly different from men. For example, this notion became evident in various statements such as presented in Table 1, Statements 1–4. In addition, when financiers discussed investing smaller scopes of financial means, they target women entrepreneurs based on a perception that women are reluctant to take on large financial obligations due to their risk aversion. They reason that women entrepreneurs are not willing to fully commit to business exploitation and, thus, that women entrepreneurs are best supported by smaller investment amounts. The statement 5 in Table 1 highlights this perceived risk aversion among women entrepreneurs.

In contrast, when referring to men and their venturing, a notion emerged in which men were characterized as being ambitious, risk-taking, and eager to have a go and test their ideas. This notion became evident through various statements (see examples 6–9 in Table 1). Further, men's ventures were often characterized as risk taking and in need of large financial support through such statements 11–12 presented in Table 1.

4.1.2. Notion 2: Women are reluctant to grow their businesses versus men are willing to grow their businesses

Commonly, the financiers began by stating women's reluctance to grow, which is the basis for the second notion. Financiers repeated argued that women as not keen to grow their businesses. Throughout the financiers' construction of this notion, it became obvious that they believe women are an unprofitable part of their investments. This notion became evident in numerous statements such as the example statements 13–14 in Table 1. In contrast, we commonly observed that men were seen as willing to grow their ventures, which clearly shows a contradictory notion. The examples of typical statements portraying men as growth ambitious and in need of financing are illustrated in Table 1, statements 15–17.

4.1.3. Notion 3: Women do not have resources to engage in high growth whereas men have resources to engage in high growth

The governmental venture capitalists stated that when they evaluate entrepreneurs applying for finance, they have to ensure each venture has sound financial status. However, financiers seem to be specifically sensitive when women entrepreneurs do not measure up to their standards. The financiers often described women as lacking resources to engage in high growth, such as statement 18 regarding women's lack of competence in Table 1 show. This notion is also evident in statements about women's lack of personal financial capital (see statement 19, Table 1). Conversely, in situations when men entrepreneurs were not financially well situated, the venture capitalists were more forgiving, frequently overlooking financial issues and occasionally weighing men's lack of financial status with their overall competence. For instance, the financiers repeatedly expressed statements like the example 20–22 in Table 1. When men entrepreneurs made sound investments, their successful resource-acquisition management was especially emphasized in statements such as statements 23–24 illustrated in Table 1. This shows the contrasting notions about women and men despite similar financial conditions.

 Table 1

 Example statements illustrating construction of stereotypical gender notions.

Mo Notion 2: We bu	Women are cautious and risk averse Men are ambitious and risk-taking	1 2 3 4 5 6 7 8 9	"She is very cautious as women often are and she is careful in what she does and she does not dare to invest" "It's a fact that women are more cautious in their investments" "She is a typical woman, extremely risk averse". "She is careful and has difficulties [making] the next step." "It is enough with small financial means to achieve motivational effects on women's venturing—they are not willing to invest that much so it's enough to support them with small financial means" "Due to lots of critisism that women can't access this type of finance which actually is not meant for the type of no-risk, non-growth businesses run by women, we had to develop a new type of financing that was more appropriate for them—micro financing." "We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu	Men are ambitious and risk-taking	3 4 5 6 7 8 9	"She is a typical woman, extremely risk averse". "She is careful and has difficulties [making] the next step." "It is enough with small financial means to achieve motivational effects on women's venturing—they are not willing to invest that much so it's enough to support them with small financial means" "Due to lots of critisism that women can't access this type of finance which actually is not meant for the type of no-risk, non-growth businesses run by women, we had to develop a new type of financing that was more appropriate for them—micro financing." "We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu	Men are ambitious and risk-taking	4 5 6 7 8 9	"She is careful and has difficulties [making] the next step." "It is enough with small financial means to achieve motivational effects on women's venturing—they are not willing to invest that much so it's enough to support them with small financial means" "Due to lots of critisism that women can't access this type of finance which actually is not meant for the type of no-risk, non-growth businesses run by women, we had to develop a new type of financing that was more appropriate for them—micro financing." "We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu Me	∕len are ambitious and risk-taking	56789	"She is careful and has difficulties [making] the next step." "It is enough with small financial means to achieve motivational effects on women's venturing—they are not willing to invest that much so it's enough to support them with small financial means" "Due to lots of critisism that women can't access this type of finance which actually is not meant for the type of no-risk, non-growth businesses run by women, we had to develop a new type of financing that was more appropriate for them—micro financing." "We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu Me	∕len are ambitious and risk-taking	6 7 8 9	venturing—they are not willing to invest that much so it's enough to support them with small financial means" "Due to lots of critisism that women can't access this type of finance which actually is not meant for the type of no-risk, non-growth businesses run by women, we had to develop a new type of financing that was more appropriate for them—micro financing." "We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu Me	Men are ambitious and risk-taking	7 8 9	financial means" "Due to lots of critisism that women can't access this type of finance which actually is not meant for the type of no-risk, non-growth businesses run by women, we had to develop a new type of financing that was more appropriate for them—micro financing." "We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu Me	Men are ambitious and risk-taking	7 8 9	"Due to lots of critisism that women can't access this type of finance which actually is not meant for the type of no-risk, non-growth businesses run by women, we had to develop a new type of financing that was more appropriate for them—micro financing." "We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu Me	Men are ambitious and risk-taking	8	meant for the type of no-risk, non-growth businesses run by women, we had to develop a new type of financing that was more appropriate for them—micro financing." "We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu Me	Men are ambitious and risk-taking	8	"We have seen similar examples of driven, competent men who takes risks and manage to make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
Notion 2: We bu Me		8	make it thrive" "However, I have to admit that despite this they should know the best way they need to invest";
bu Me		9	invest";
bu Me		-	
bu Me		10	"He has proved to sustain his persistence all the way"
bu Me			"This amazing man already the next day called to ask 'How do I do this and that,' a typical
bu Me			male behavior to act and sort things out."
bu Me		11	"Usually these producing companies are in need [of] the heaviest investments"
bu Me		12	"I have to say that big men are the ones making the heaviest investments compared to
bu Me			women."
Me	Vomen are reluctant to grow their	13	"We should finance where we can contribute to high leverage and prioritize such businesses
	ousinesses		instead of financing hand-to-mouth enterprises which women typically run"
		14	"She is extremely cost aware—this is not how you grow a company."
	Men are willing to grow their businesses	15	"His major problem is to find enough financial capital for the investments to grow. He sold off his shares in another venture which made him able to get parts of the financing"
		16	"He owns a big share of the company and of course he wants to increase the production volume to raise the profitability and expand"
		17	"He is looking for a company to buy. That shows some guts to grow, which is typical male
		10	behavior."
	Vomen do not have resources to engage in high growth	18	"She just talks a lot, and wants to get her hands on the money. The question is if she can rely on her own abilities."
		19	"She doesn't even have any savings to use for investments."
	Men have resources to engage in high growth	20	"He is good at branding himself. He should keep his idea simple and get back to us later. We see his potential"
		21	"I did [see] him as very competent, he knows what he is doing, and we have seen similar competent men before."
		22	"He bought the whole property and the only thing he needs to borrow money for from us is
		22	the heating system"
		23	"We saw that he is investing his own money in this"
		24	"He has the capacity to carry out the investment."
Notion 4: We	Vomen's ventures underperform	25	"I can't say that she is a bad entrepreneur but the business is struggling."
		26	"She has zero understanding of running a business but surprisingly it seems to go well anyway"
		27	"She seems to have a grip on this"
N.A.	Men's ventures perform well	28	"His venture is not up and running yet, but he is on his way"
IVIE	neira ventures perioriii wen	28 29	"He is a bit hesitant in what to do"; and "With some help he will succeed"
		30	"He succeeded with his earlier business so I think he can pull this one off"
		31	"He is approved for funding, because he has worked in the industry for two years so he has
		21	some experience."

4.1.4. Notion 4: Women's ventures underperform whereas men's ventures perform well

The financiers commonly performed a notion positing that women and men have different levels of venture performance, with women being seen as underperformers and men being seen as top performers. The financiers often questioned women-owned ventures' performance, often claiming these ventures underperform, such as in the statement 25 in Table 1 illustrates. In addition, instead of acknowledging when women performed well, statements commonly expressed referred to being reluctant to women's abilities to run businesses (see example statement 26 in Table 1. The financiers even seemed surprised by women's success at times, which highlights venture capitalists' belief that women normally underperform in their venturing. In contrast, the venture capitalists' expectations for men were completely different; they often defended men or found excuses when their venturing performance was poor. Statements 28–30 in Table 1 are examples highlighting the notion that men generally achieve satisfactory performance in their business venturing. In addition, for several ventures run by men, there was no clear evidence that the ventures had or would perform well, but the financiers still had great trust in these ventures' success. This point can be seen in expression 31 in Table 1. The belief that men perform well in their venturing is evident.

All of these four notions regarding women and men entrepreneurs shape financiers' foundational view of entrepreneurial potential as well as how that potential is valued. However, do these notions have any substance? Below, we set out to shed light on these

notions with facts to see if they have any substance.

4.2. Shedding light on stereotypical gender notions with facts

In order to test each notion, we compared corresponding accounting information and key performance indicators between women's and men's ventures. Such information reflects the businesses' actual performance, the decisions actively made by the entrepreneurs regarding how they run their businesses, and their venturing activities.

4.2.1. Evaluating Notion 1

To test the substance of the notion that women are cautious and risk averse whereas men are more prone to take action and engage in risk taking, venturing information related to the size of long-term and short-term loans, including information on the collateral used and the venture's ability to bear costs, are compared. This information reflects the extent to which entrepreneurs are cautious or risk taking in their venturing as they provide a picture of businesses' financial risks and entrepreneurs' willingness to take risks to have a go and test their ideas. First, we compared the ventures' debt-to-equity ratio (leverage), which indicates the degree to which an entrepreneur exposes his or her business to risks, and found no significant difference in this measure between women and men applying for finance (p = 0.766). Second, the ventures' equity ratio indicates the proportion of the total assets financed by a venture's owner(s) and a venture's ability to pay in long run. While low equity ratio values indicate difficulties in managing costs and thereby high risk in such ventures due to entrepreneurs' inability to balance costs with assets, high equity ratio values indicate low levels of venture development and reinvestment. Our results show no significant difference in this measure between women and men applying for finance (p = 0.517). Third, we compared ventures' risk buffer, that is, the entrepreneurs' ability to balance return on total assets. A negative risk buffer together with a low equity ratio can indicate that a company is not profitable and is thus high risk. Our results indicate no statistical difference in this measure between women and men applying for finance (p = 0.389). Fourth, the ventures' property mortgage/mortgage of venture's real estate ratio reflects the use of real estate collateral for loans or credit. This measure indicates risk taking in the form of entrepreneurs' trust in their own venturing actions to the point that they are willing to risk business assets to grow their ventures and test new ideas. Our results show no statistical difference in this measure between women and men applying for finance (p = 0.569). Fifth, we looked at the ventures' used bank overdraft facilities/use of approved checking account ratio, which reflects the extent to which an entrepreneur uses bank-approved rights to overdraw a bank balance up to a set limit of credit. Using bank overdraft facilities reflects the need for working capital either because the rest of the capital is tied in inventory, property, or stock-in-trade or because the company has financial constraints, thus reflecting risk taking. Our results show no statistical difference in this measure between women and men applying for finance (p = 0.527). Sixth, we compared ventures' long-term liabilities/loans ratio, which indicates the size of venture investments and thus an entrepreneur's propensity to take risk. The results indicate no statistical difference in this measure between women and men applying for finance (p = 0.444) Table 2.

Table 2Gender of the entrepreneurs applying for finance and key ratios and financial statement information of their venturing^a.

		Women		Men		Sig.
		Mean	Std.	Mean	Std.	
Notion 1	Risk buffer	-7,03	56,75	-0,28	30,10	0,389
	Equity ratio (solidity)	30,07	36,73	34,02	26,65	0,517
	Debt-to-equity ratio; leverage	3,27	4,48	2,91	6,07	0,766
	Mortgage of venture's real estate/Property mortgage	1108,45	1979,16	1783,17	6271,30	0,569
	Use of approved checking account (SEK)	108,86	375,23	1620,21	12782,23	0,527
	Long-term liabilities/loans	870,83	1540,90	4349,10	24328,46	0,444
Notion 2	Growth in no. of employees	9,53	27,91	2,35	29,91	0,247
	No. of employees	7,41	10,90	13,40	47,91	0,506
	Growth in turnover	27,30	85,07	63,42	247,56	0,442
	Turnover	14377,86	33494,45	23597,99	73173,43	0,511
Notion 3	Operating margin	-44,54	169,82	-74,19	527,80	0,766
	Buildings and land	1343,97	2336,03	1497,43	4943,77	0,872
	Machinery	91,41	417,28	320,02	2111,24	0,564
	Shareholders' contribution	11,24	31,30	143,70	777,27	0,362
	Dividendable capital	5716,41	17845,78	3679,07	14032,52	0,515
	Approved checking account	277,59	694,05	3552,57	20637,90	0,396
Notion 4	Return on total capital	-4,10	54,23	2,22	29,32	0,403
	Return on capital employed	7,19	90,91	13,19	64,06	0,685
	Profit margin	-10,92	96,78	-240,23	1851,04	0,507
	Revenue per employee	1118,52	1097,15	1225,87	1468,91	0,715
	Capital turnover ratio	1,51	0,89	1,53	1,14	0,947
	EBIT	1465,52	4107,39	794,93	3224,74	0,352

^a Where there is a difference between the means, the **bolded** mean is the highest. The **bolded** mean is significantly higher than the mean printed in *italics*. All means that are neither in boldface nor in italics are not significantly (p < 0.05) different from the other means. *** (p < 0.001); ** (p < 0.01).

4.2.2. Evaluating Notion 2

To check the validity of the notion that women are more reluctant to grow businesses than men, we compared indicators related to venture size as well as changes in venture size. First, we compared the ventures' *turnover*, which indicates the size and volume of a venture and reflects the ambitions of the entrepreneur behind the measures. The higher the turnover, the greater the scope of processes and employees involved in the business and the more planning and responsibilities for the entrepreneur. The results show no statistically significant difference in this measure between women and men applying for finance (p = 0.511). Second, the ventures' *growth in turnover* reflects an entrepreneur's efforts, drive, and inputs over the past year. No significant differences in this measure were found between women's and men's venturing (p = 0.442). Third, we compared the ventures' *number of employees*, which indicates the size of a venture and the level of competence needed or workforce required to achieve venture goals. Our results show no significant differences in this measure among women's and men's ventures (p = 0.506). Fourth, we examined ventures' *growth in number of employees*, which shows the increased need for workers and/or competencies due to changes in demand for a venture's products or services. Further, growth in employees reflects entrepreneurs' ambitions to expand their business. Our results show no statistically significant difference in this measure between women's and men's ventures (p = 0.247) Table 2.

4.2.3. Evaluating Notion 3

To investigate the substance of the notion that women have fewer resources than men to engage in high growth, we paid special attention to information reflecting wealth potential that can be used to generate growth. First, we compared the ventures' *operating margin*, which is commonly used in analyses of ventures' efficiency and pricing strategy as it gives an idea of earnings per sales and thus gives an indication of an entrepreneur's ability to earn revenue. This measure gives the proportion of a venture's revenues after paying for production costs. No significant differences in this measure were found between women's and men's ventures (p = 0.766). Second, the value of the ventures' *real* estate indicates the scope of collateral available for taking on larger loans. No significant differences in this measure were found between women's and men's ventures (p = 0.872). Third, we looked at the value of the ventures' *machinery*, which indicates the worth of assets that can be used as collateral for loans when needed. The results show no statistically significant difference between women's and men's venture resources (p = 0.564). Fourth, information about *shareholders' contributions* provides insights into shareholders' (in this case, the women and men entrepreneurs') financial ability to invest in a business. Our results show no statistical difference between women's and men's venture resources (p = 0.362). Fifth, the financial item *dividendable capital* signals accumulated profit that can be reinvested in the business or capital that can be used as dividends. The results show no statistical difference in this measure between women's and men's ventures (p = 0.515). Sixth, we compared the ventures' *approved checking account/bank overdraft facilities*, which shows the approved credit enabling to overdraw bank balance. There are no statistical differences in this measure between women's and men's ventures (p = 0.396) Table 2.

4.2.4. Evaluating Notion 4

To determine the validity of the notion that women's ventures underperform whereas men's ventures perform well, we compared the ventures' accounting information related to efficiency and profitability. First, we compared ventures' return on total capital/assets ratio, which indicates how efficiently an entrepreneur uses his or her venture's assets to generate money. This ratio is one the most common profitability measures signaling value-creating potential for investors. The results show no significant difference in this measure between women's and men's ventures (p = 0.403). Second, return on capital employed indicates the efficiency with which capital is employed and thereby shows a business's relative profitability after taking into account the amount of capital used. The results show no significant differences in this measure between women's and men's ventures (p = 0.685). Third, we looked at the ventures' profit margin, which shows the percentage of earnings kept from every sales dollar. There are no significant differences in this measure between women's and men's ventures (p = 0.507). Fourth, we compared ventures' turnover per employee ration, which indicates employees' productivity and efficiency as well as their ability to efficiently use a venture's resources. It also indicates entrepreneurs' ability to recruit skilled staff who will improve venture performance. The results show no significant differences in this measure between women and men who applied for finance (p = 0.715). Fifth, capital turnover ratio shows a venture's ability to achieve maximum sales with a minimum amount of capital employed. The results for this measure were non-significant, indicating no differences between women's and men's ventures in this area (p = 0.947). Sixth, information about earnings before interest and tax/ operating profit (EBIT) was compared, which shows operating earnings before interest and taxes after depreciation. This measure indicates an entrepreneur's ability to both generate earnings and manage costs effectively. There are no significant differences in this measure between women's and men's ventures (p = 0.352).

We engaged in additional analysis to validate our results. First, we noticed high variance in a number of key figures among men entrepreneurs, so we checked to see how such extreme cases were distributed over time and found no systematic pattern among them regarding when they entered into the assessment process. As such, we can rule out the potential bias of extremely high performing ventures affecting the simultaneous assessment of other applications. Second, we did an evaluation to contrast statements between men and women evaluators and did not find any clear deviation in their coding structures. All evaluators could be matched with the coded gender notions Table 2.

5. Conclusion

To our knowledge, no previous study has empirically shown how stereotypical gender notions of both women *and* men entrepreneurs are embedded in venture capitalists' assessments, and matched constructions of stereotypical gender notions of a specific set of entrepreneurs with venturing performance facts for the exact same set of entrepreneurs. As a result, our study contributes not

only an empirical basis for previously discussed notions but also empirical findings that cover notions of both women and men entrepreneurs. Thus, we show how deeply entrenched beliefs about gender roles are associated with discriminatory practices in financing entrepreneurship. Our statistical testing of the substance and relevance of stereotypical gender notions shows that there are no significant differences between women's and men's venturing outcomes when venture performance facts are compared. Thus, we show that in a context where gender notions are created, corresponding data on venturing provides no foundation for these notions regarding how women and men have performed in their venturing activities. Thus, consistent with Krishna et al. (2015), we illuminate two poles of reality: the one reflected by venture capitalists' gender constructions and the other reflected by ventures' annual reports. We encourage further research to use larger samples, and although our data does not support differences between assessments made by women and men venture capitalists, we encourage further investigation of potential differences in their assessments of women and men entrepreneurs.

Ahl, H., Marlow, S., 2012. Exploring the dynamics of gender, feminism and entrepreneurship: advancing debate to escape a dead end? Organization 19 (5), 543–562. Balachandra, L., Briggs, T., Eddleston, K., Brush, C., 2017. Don't pitch Like a girl! How gender stereotypes influence investor decisions. Entrep. Theory Pract.

Bardasi, E., Sabarwal, S., Terrell, K., 2011. How do female entrepreneurs perform? Evidence from three developing regions. Small Bus. Econ. 37 (4), 417-441.

Bruni, A., Gherardi, S., Poggio, B., 2004. Entrepreneur-mentality, gender and the study of women entrepreneurs. J. Organ. Change Manag. 17 (3), 256–268. Brush, C., Carter, N.M., Gatewood, E.J., Greene, P.G., Hart, M., 2001. The Diana Project: women business owners and equity capital: the myths dispelled. Brush, C. G., Greene, P. G., Balachandra, L., Davis, A. E., & Blank, A. M. (2014). Women entrepreneurs 2014: bridging the gender gap in venture capital. Arthur M.

Brush, C.G., Carter, N.M., Gatewood, E.J., Greene, P.G., Hart, M.M., 2006. The use of bootstrapping by women entrepreneurs in positioning for growth. Ventur.

De Bruin, A., Brush, C.G., Welter, F., 2007. Advancing a framework for coherent research on women's entrepreneurship. Entrep. Theory Pract. 31 (3), 323-339.

Ahl, H., 2006. Why research on women entrepreneurs needs new directions. Entrep. Theory Pract. 30 (5), 595-621.

Bird, B., Brush, C., 2002. A gendered perspective on organizational creation. Entrep. Theory Pract. 26, 41-65.

Cliff, J.E. Langton N. Aldrich, H., 2005, Walking the talk? Gendered rhetoric vs. action in small firms.

Verheul, I., Thurik, R., 2001. Start-up capital: does gender matter? Small Bus. Econ. 16, 329-345.

Williams, J.E., Best, D.L., 1990. In: Measuring Sex Stereotypes: A Multination Study. Sage Publications (Rev. ed.).

Becker-Blease, J.R., Sohl, J.E., 2011. The effect of gender diversity on angel group investment. Entrep. Theory Pract. 35, 709–733. Blair, I.V., Banaji, M.R., 1996. Automatic and controlled processes in stereotype priming. J. Personal. Soc. Psychol. 70 (6), 1142.

Banaji, M.R., Hardin, C.D., 1996. Automatic stereotyping. Psychol. Sci. 7 (3), 136-141.

Blank Center for Entrepreneurship Babson College.

Capital. 8 (1), 15-31.

References

García, M.C.D., Welter, F., 2013. Gender identities and practices: interpreting women entrepreneurs' narratives. Int. Small Bus. J. 31 (4), 384-404. Eagly, A.H., 1987, Sex Differences In Social Behavior: a Social-role Interpretation, Erlbaum, Hillsdale, N.J. Eagly, A.H., Karau, S.J., 2002. Role congruity theory of prejudice toward female leaders. Psychol. Rev. 109 (3), 573-598. Eagly, A.H., Wood, W., Diekman, A.B., 2000. Social role theory of sex differences and similarities: a current appraisal. In: Eckes, T., Trautner, H.M. (Eds.), The Developmental Social Psychology of Gender. Erlbaum, Mahwah, NJ, pp. 123-174. Eddleston, K.A., Ladge, J.J., Mitteness, C., Balachandra, L., 2016. Do you see what I see? Signaling effects of gender and firm characteristics on financing entrepreneurial ventures. Entrep. Theory Pract. 40 (3), 489-514. Fiske, A.P., Haslam, N., Fiske, S.T., 1991. Confusing one person with another: what errors reveal about the elementary forms of social relations. J. Personal. Soc. Psychol, 60 (5), 656. Gatewood, E.J., Brush, C.G., Carter, N.M., Greene, P.G., Hart, M.M., 2009. Diana: a symbol of women entrepreneurs' hunt for knowledge, money, and the rewards of entrepreneurship. Small Bus. Econ. 32 (2), 129-144. Gioia, D.A., Corley, K.G., Hamilton, A.L., 2013. Seeking qualitative rigor in inductive research: notes on the Gioia methodology. Organ. Res. Methods 16 (1), 15–31. Glick, P., Fiske, S.T., 1996. The ambivalent sexism inventory: differentiating hostile and benevolent sexism. J. Personal. Soc. Psychol. 70 (3), 491. Greene, P.G., Brush, C.G., Hart, M.M., Saparito, P., 2001. Patterns of venture capital funding: is gender a factor? Ventur. Cap. 3 (1), 63-83. Gupta, V.K., Turban, D.B., Wasti, S.A., Sikdar, A., 2009. The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. Entrep. Theory Pract. 33 (2), 397-417. van Knippenberg, A., van Twuyver, M., Pepels, J., 1994. Factors affecting social categorization processes in memory. Br. J. Soc. Psychol. 33 (4), 419-431. Krishna, D.A., Haque, C.E., Thompson, S., 2015. 'Man can't give birth, woman can't fish': gender dynamics in the small-scale fisheries of Bangladesh. Gend. Place Cult. Lewis, P., 2006. The quest for invisibility: female entrepreneurs and the masculine norm of entrepreneurship. Gend., Work Organ. 13 (5), 453-469. Malmström, M., Johansson, J., & Wincent, J. (2017a). Gender Stereotypes and Venture Support Decisions: How Governmental Venture Capitalists Socially Construct Entrepreneurs' Potential. Entrepreneurship Theory and Practice. Malmström, M., Johansson, J., & Wincent, J. (2017b). We Recorded VCs' Conversations and Analyzed How Differently They Talk About Female Entrepreneurs. Harvard Business Review. Marlow, S., McAdam, M., 2013. Gender and entrepreneurship: advancing debate and challenging myths - exploring the mystery of the under-performing female entrepreneurship. Int. J. Entrep. Behav. Res. 19 (1), 114-124. Marlow, S., 2015. 3. Women, gender and entrepreneurship: why can't a woman be more like a man? In: Context, Process and Gender in Entrepreneurship: Frontiers in European Entrepreneurship Research 23. Orser, B.J., Riding, A.L., Manley, K., 2006. Women entrepreneurs and financial capital. Entrep. Theory Pract. 30 (5), 643-665. Spence & Helmreich, 1978. Shapiro, M., Hass, S., Maxfield, S., Gupta, V., 2015. 13. Risk aversion among women: reality or simply 'doing gender? In: Handbook of Gendered Careers in Management: Getting In, Getting On, Getting Out, 208. Stangor, C., Lynch, L., Duan, C., Glas, B., 1992. Categorization of individuals on the basis of multiple social features. J. Personal. Soc. Psychol. 62 (2), 207. Zolin, R., Stuetzer, M., Watson, J., 2013, Challenging the female underperformance hypothesis, Int. J. Gend. Entrep. 5 (Iss 2), 116–129.