

Fear-Of-Failure and Women Entrepreneurship: Comparative Analysis Austria versus USA

Magdalena Meusburger, Caroline Maria Hofer

Abstract—The advancement of women entrepreneurship in the last decade has been a vital driver for social and economic development. Despite the positive evolution, women entrepreneurs are still underrepresented in entrepreneurial ecosystems. Fear-of-failure is a major factor inhibiting their entrepreneurial activity. This survey-based research focused on aspiring and established entrepreneurial women in Austria and in the USA. It explored and compared the extent to which entrepreneurial fear-of-failure influences their self-employment and their aspirations to become self-employed. The results demonstrate that entrepreneurial fear-of-failure is significantly higher for women with the wish for self-employment than it is for women who are already self-employed. In terms of the geographical and cultural setting no major differences were confirmed.

Keywords—Entrepreneurial ecosystems, fear-of-failure, female entrepreneurship, women entrepreneurship.

I. INTRODUCTION

ENTREPRENEURS are the ones who grasp the opportunities presented by chaos and change. It could be suggested, for entrepreneurs especially, that the current turbulent times with rapid technological change, the ongoing COVID-19 pandemic, the war in Ukraine, climate change and the resulting social and economic inequalities, offer new business opportunities that come from crisis. Women entrepreneurs have proven to forge ahead and show resilience when it comes to the survival and/or stability of their businesses [1], creating value-adding businesses that bring wealth to their economies. Despite the fact that the rate of women entrepreneurs is growing internationally [2], it is still lower than the total early-stage entrepreneurial activity (TEA) of men [3]. In literature, two macro-categories are identified to have a different impact on entrepreneurship: firstly, the role of property rights underlying an entrepreneurial activity; and secondly, government-determined regulations and policies, for instance tax and social security systems [2]. However, among countries with similar economic conditions between the genders, the gender difference continues to exist [3].

In addition to macro-economic factors, empirical evidence shows that a woman's decision to engage in entrepreneurial activity is also influenced by socio-cultural factors [4]-[6]. These socio-cultural factors include, amongst others, fear-of-failure [7], [8], perceived capabilities [5] and perceived opportunities [9]. Moreover, role models are also prevalent in prior research as drivers of women entrepreneurship [2], [5].

Magdalena Meusburger is with the Department of Business Management, Fachhochschule Vorarlberg University of Applied Sciences and Director of the Startup-Center startupstube, Hochschulstraße 1, Dornbirn, A - 6850, Austria (e-mail: magdalena.meusburger@fhv.at).

Fear of failure is considered one of the most important obstacles to the startup process [10].

Women are often viewed as more risk averse than men but research indicates gender differences lie in the way in which individuals perceive themselves and their environments [11]. Fear-of-failure in the context of entrepreneurship is defined as a temporary emotional experience which can impact entrepreneurial activity in a positive or negative way [12]. Cacciotti et al. conceptualize entrepreneurial fear-of-failure as “a negative affective reaction that is based in cognitive appraisals of the potential for failure in the uncertain and ambiguous performative context of entrepreneurship” [7].

We are based in Austria and have a true stake in the Austrian Startup Eco-System with the mission to foster women entrepreneurship in this country. Thus, Austria was chosen as one of the countries of investigation. The recent Female Startups and Investment Report [13] analyzed over 26'000 EU-Startups and shows that one in five startups in the European Union is a female startup. Austria, with 36%, currently has the highest share of female startups in the EU. To learn from the best, the USA was chosen for a comparison. On a global level, the USA is ranked amongst the top countries for female entrepreneurs [14]. Almost half of all startups in the USA in 2021 were formed by women [15]. Therefore, this paper compares aspiring and established entrepreneurial women in Austria and in the USA and explores the extent to which fear-of-failure influences their self-employment and their aspirations to become self-employed.

II. OBJECTIVE

Investigating entrepreneurial fear-of-failure enables an increased understanding of the approach and avoidance aspects relating to women entrepreneurship. Approach motivation happens when “behavior is instigated or directed by a positive or desirable event or possibility [16]”. Whereas, avoidance motivation happens when behavior is directed towards “limiting the occurrence of or the effects of negative events [17]”. Entrepreneurial fear-of-failure may motivate as well as inhibit behavior. Entrepreneurial fear-of-failure may motivate as well as inhibit behavior. Raman et al. (2022) analyzed emerging research trends in the field of women entrepreneurship and showed that several studies focus on the impact of gender on entrepreneurship [18]. For instance, Dawson and Henley found that the gap between women and

Caroline Hofer was a graduate student of the International Management and Leadership Master-Program of the Department of Business Management, Fachhochschule Vorarlberg University of Applied Sciences, Dornbirn, A - 6850, Austria.

men's entrepreneurial intentions appears to be associated with attitude to risk [19]. Our paper does not compare women and men in terms of entrepreneurial fear-of-failure, but focuses on cross-country comparison instead. Cross-country comparisons allow a better understanding of the effect that the socio-cultural context has on female entrepreneurs [4]. Based on the reasons outlined above, the first objective of this paper is to analyze the influence of entrepreneurial fear-of-failure on women's entrepreneurship in Austria and in the USA.

We apply Cacciotti et al.'s [7] entrepreneurial fear-of-failure model and scales as a guiding framework. This concept of fear-of-failure in entrepreneurial settings is divided into seven different themes: (1) Fear about loss or the potential for loss of the entrepreneur's livelihood and stored wealth if the venture fails; (2) Fear about the (in)ability to perform actions or tasks relating to the entrepreneurial venture; (3) Fear about the (in)ability to generate or attract the necessary financial capital for the venture; (4) Fear about the true potential of the opportunity or idea on which the entrepreneurial venture is based; (5) Fear about how others might perceive the entrepreneur should take a misstep or fail entirely; (6) Fear about the venture team or organization's (in)ability to carry out the tasks needed for success; (7) Fear about the opportunity costs associated with dedicating time and resources to developing a venture that might fail [7]. In the 2015 Female Entrepreneurship Index Report, the individual-level indicator "willingness to start" is higher for women in the USA than for women in Austria [14]. Hofstede's cultural dimension "uncertainty avoidance" investigates "the extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these" [20]. Austrians are reported to have a preference for avoiding uncertainty, while US-Americans score below average on the uncertainty avoidance dimension and are implied to have a fair degree of willingness to try something new or different, also when it comes to business practices. Hence, it is proposed:

- Hypothesis 1a: Self-employed women in Austria self-report higher levels of entrepreneurial fear-of-failure than self-employed women in the USA.
- Hypothesis 1b: Women with the wish for self-employment in Austria self-report higher levels of entrepreneurial fear-of-failure than women with the wish for self-employment in the USA.

The second objective of this paper is to investigate if women with the wish for self-employment differ from self-employed women in terms of their entrepreneurial fear-of-failure. The following is proposed:

- Hypothesis 2a: Austrian women with the wish for self-employment self-report higher levels of entrepreneurial fear-of-failure than self-employed Austrian women.
- Hypothesis 2b: USA women with the wish for self-employment self-report higher levels of entrepreneurial fear-of-failure than self-employed USA women.

By investigating the hypotheses outlined above, this research contributes in two ways: firstly, by theoretically advancing the knowledge of entrepreneurial fear-of-failure as a barrier to

entrepreneurial activities of women and secondly, in a practical way by informing the development of impactful support programs for aspiring female entrepreneurs.

III. METHODOLOGY AND DATA

To investigate the topic entrepreneurial fear of failure in the context of women entrepreneurship a deductive approach was used. Hypotheses were developed based on existing literature and then tested. The empirical component of this research employed regression models using a unique survey data set of 443 (aspiring) entrepreneurial women in Austria and the USA. The sampling method for this research was the random voluntary response method. This means that individuals were chosen randomly from the total population and invited to participate voluntarily [21]. In Austria, the distribution was done via email through the co-author's university and private network, and Prolific, a service provider for collecting survey participants. All participants were also encouraged to share the survey in their circles. Participants from the USA were recruited to participate in the research through the co-author's private network and Prolific [22]. The data collection period was from May 13, 2022 to May 25, 2022 and the survey was created using the Unipark tool [23]. The survey was emailed to potential participants and included a cover letter explaining the purpose of the study, instructions, and the link to the online survey. The questionnaire collected demographic data, including gender, country of residence, age group, marital status, and educational qualification, as well as information about self-employment and aspirations to be self-employed. Furthermore, the questions capturing the variables and dimensions of Cacciotti et al.'s (2020) entrepreneurial fear-of-failure model [7] were included (see Table I). The survey was pre-tested with eleven participants and as a result the phrase "If I were to start my own business, I would be afraid..." was added, to make it more accessible for women with the wish for self-employment.

Responses were collected on a 5 point Likert scale with anchors such as, "1 = not at all afraid" / "5 = very much afraid". Data from participants who were not of the female sex, who were not residents of Austria, or the United States of America, or who were not self-employed and had no aspirations to become self-employed, were excluded from the analysis.

To test the hypotheses, all data were first processed and cleaned in SPSS [24]. Based on the research hypotheses above, the H0 hypotheses were listed, and the procedure for testing was created. The sample and its frequencies were represented using tables. The collected data were then examined using bivariate hypotheses tests. The mean of the one group was compared with the mean of the other group using the SPSS Compare Means program.

IV. MAIN RESULTS

A total of 443 (aspiring) entrepreneurial women in Austria and the USA participated in the study. 135 were situated in Austria and 308 in the USA. Out of the sample, 169 women were already self-employed and 274 stated that they had the

wish to become self-employed. The majority of respondents were aged 21-59. Married and single women accounted for one third each and most of the respondents held a university degree. Table II shows the respondents' demographics in percentages.

TABLE I
 MEASURE OF ENTREPRENEURIAL FEAR-OF-FAILURE

Dimensions	Items
Stem1:	Over the past few months, I have been afraid...
Stem2:	If I were to start my own business, I would be afraid...
F	...of not getting enough funding to move the company forward
F	...of not being able to finance the business
F	...of not being able to get the required funding for the business
PI	...that no one will be interested in the product/service
PI	...that this is not a valuable business idea
PI	...that there is no need for our product/service out there
TSE	...of other people's expectations of me
TSE	...of disappointing the people who are important to me
TSE	...of losing the trust of people who are important to me
OC	...that running the business is taking my time away from other activities
OC	...of missing important events of my life because of my business
OC	...of not being able to spend enough time with my family and friends
PA	...of not being able to manage people effectively
PA	...of not being able to manage the business effectively
PA	...of not being able to fulfil all the roles that this job requires
FS	...of running out of money
FS	...of losing all my savings
FS	...of losing all I have invested in the business/business activities
Stem1a:	Over the past few months, I have been afraid of the organization's ability to...
Stem2a:	If I owned my own business, I would be afraid of the organization's ability to...
VE	...meet client expectations
VE	...overcome technical challenges
VE	...deliver upon promises

F = Ability to fund the venture; PI = Potential of the idea; TSE = Threat to social esteem; OE = Opportunity costs; PA = Personal ability; FS = Financial security; VE* = Venture's capacity

TABLE II
 DEMOGRAPHICS OF SURVEY RESPONDENTS

Variable	Item	Percentage
Country of residence	Austria (135)	30%
	USA (308)	70%
Entrepreneurial status	Self-employed (169)	38%
	Wish for self-employment (274)	62%
Age group	18-20 (21)	5%
	21-29 (139)	31%
	30-39 (102)	23%
	40-49 (83)	19%
	50-59 (61)	14%
	60 or older (37)	8%
Marital status	No indication (1)	0%
	Married (141)	32%
	Divorced (38)	9%
	Single (146)	33%
	Widowed (8)	2%
	Relationship (109)	25%
Educational qualification	Secondary (3)	1%
	Apprenticeship (7)	2%
	High School (23)	5%
	Bachelor (157)	35%
	Master (183)	41%
	PhD (63)	14%
	No indication (7)	2%

A. Analysis

1a) Difference between self-employed women in Austria and in the USA in terms of entrepreneurial fear-of-failure: There was no significant difference in the scores for entrepreneurial fear of failure by self-employed women in Austria ($M = 2.66, SD = 0.83$) and self-employed women in the USA ($M = 2.80, SD = 0.76$), $t(167) = -1.104, p = 0.3$. We could not find a difference between the two countries (see Table III). To find out if the two means were significantly different, an independent sample t-test was performed.

TABLE III
 EFOF OF SELF-EMPLOYED WOMEN: AUSTRIA VS USA

Country	Austria (n = 54)			USA (n = 119)		
	Mean	SD	St.Error Mean	M	SD	St.Error Mean
EFOF	2.66	0.83	0.11	2.80	0.76	0.07

EFOF = Entrepreneurial Fear-of-Failure, SD = Standard Deviation

1b) Difference between women with a wish for self-employment in Austria and in the USA in terms of entrepreneurial fear-of-failure: There was no significant difference in the scores for entrepreneurial fear-of-failure for aspiring self-employed women in Austria ($M = 3.54, SD = 0.66$) and aspiring self-employed women in the USA ($M = 3.47, SD = 0.67$), $t(272) = 0.8, p = 0.43$ (see Table IV).

TABLE IV
 EFOF OF ASPIRING SELF-EMPLOYED WOMEN: AUSTRIA VS USA

Country	Austria (n = 81)			USA (n = 193)		
	M	SD	St.Error Mean	M	SD	St.Error Mean
EFOF	3.54	0.66	0.07	3.47	0.67	0.05

EFOF = Entrepreneurial Fear-of-Failure, SD = Standard Deviation

2a) Difference between Austrian women with the wish for self-employment and self-employed Austrian women in terms of entrepreneurial fear-of-failure: The comparison of means shows that there is a difference between respondents' answers to entrepreneurial fear-of-failure (see Table V). The cumulated mean for EFOF is 2.7 ($SD = 0.83$) for self-employed women in Austria and 3.5 ($SD = 0.66$) for women with the wish for self-employment in Austria. The 2-tailed t-test shows that the two means are significantly different, $t(133) = -6.889, p = < 0.001$. Thus, it can be concluded that self-employed women in Austria self-report less fear of entrepreneurial failure than aspiring self-employed women in Austria.

TABLE V
 EFOF OF SELF-EMPLOYED VS ASPIRING SELF-EMPLOYED WOMEN IN AUSTRIA

Austria	Self-employed (n = 54)			Wish for self-employment (n = 81)		
	Mean	SD	St.Error Mean	Mean	SD	St.Error Mean
EFOF	2.66	0.83	0.11	3.54	0.66	0.07

EFOF = Entrepreneurial Fear-of-Failure, SD = Standard Deviation

2b) Difference between women with the wish for self-employment and self-employed women in the USA in terms of entrepreneurial fear-of-failure: The comparison of means shows that also in the USA, self-employed women

do not report fear of entrepreneurial failure as much as their counterparts with the wish for self-employment. The cumulated mean for EFoF is 2.8 (SD = 0.76) for self-employed women in the USA and 3.5 (SD = 0.67) for women with the wish for self-employment in the USA. The 2-tailed t-test shows that the two means are significantly different, $t(306) = -8.06$, $p = < 0.001$. Table VI illustrates the details.

TABLE VI
 EFoF OF SELF-EMPLOYED VS ASPIRING SELF-EMPLOYED WOMEN IN THE USA

USA	Self-employed (n = 115)			Wish for self-employment (n = 193)		
	Mean	SD	St.Error	Mean	SD	St.Error
EFoF	2.80	0.76	0.07	3.47	0.67	0.05

EFoF = Entrepreneurial Fear-of-Failure, SD = Standard Deviation

B. Discussion

The first objective of this paper was to analyze the influence of entrepreneurial fear-of-failure on women's entrepreneurship in Austria and in the USA. No significant difference in the scores for entrepreneurial fear-of-failure between women from the respective countries was found. Neither when self-employed women were compared, nor when aspiring self-employed women were the focus of comparison. This result was rather surprising. One would expect that, women in the USA are less prone to entrepreneurial fear-of-failure than women in Austria. This socio-cultural difference was not confirmed in this study. However, when entrepreneurial fear-of-failure was compared between aspiring and active entrepreneurial women a significant difference was found. Aspiring women entrepreneurs report significantly more fear of entrepreneurial failure than women who took the leap of faith and started their own businesses

The results of this study add to the notion, that besides the focus on macro-economic factors to stimulate women entrepreneurship, individual-level aspects like fear-of-failure also need to be understood and addressed. Impactful support programs for aspiring women entrepreneurs are advised to also focus on soft-skills development and engage in entrepreneurial mindset building activities. Fear-setting trainings, fear-breaking events like fuckup nights, mentorship programs for aspiring entrepreneurial women where they are matched with already self-employed women and seminar series where the focus is on personal development, entrepreneurial skills development and community building are a few examples of such activities that may increase the likelihood of entrepreneurial women overcoming their fear of failure and starting new ventures.

C. Further Directions and Limitations

Survey questionnaires cannot always capture everything that participants might feel and wish to express. For this reason, it may be recommended for further studies to include other research methods besides the collection of quantitative data with a web-based questionnaire. The collection of qualitative data in addition to quantitative data would potentially provide greater insights. This study's sample size cannot be used to

generalize to the total population. The weighting between Austria and the US could also be seen as a limitation of this work, as it could have been more evenly distributed to avoid underrepresentation on behalf of Austria. Only two countries were explored. To deepen the understanding of the concept of entrepreneurial fear of failure it is advisable to include and compare other entrepreneurial ecosystems as well. Moreover, a detailed comparison of the construct entrepreneurial fear-of-failure for men and women would yield interesting insights towards explaining the gap in entrepreneurship by sex.

V. CONCLUSION

Women entrepreneurs are changing the face of business, ultimately bringing wealth and added value to their countries, yet the entrepreneurship world is still a men's domain, in Austria [25] as well as in the USA [15], [26]. It requires women and men to deal with their fears about loss or the potential for loss of one's livelihood and stored wealth if the venture fails. The (in)ability to perform the required activities associated with the development of the venture is one other fear entrepreneurs are confronted with. The fear about the (in)ability to generate or attract the necessary financial capital for the venture and the fear about the true potential of the opportunity or idea on which the venture is based are other ones. A social fear, like how others might perceive the entrepreneur should she or he take a misstep or fail entirely, is prevalent. There is also fear about the venture team's or organization's (in)ability to carry out the tasks needed for success. Finally, there is the uncertainty about the opportunity costs associated with dedicating time and resources to developing a venture that might fail [7]. This study set out to explore if (aspiring) entrepreneurial women in Austria and in the USA differ in terms of their entrepreneurial fear-of-failure. No significant difference between the countries was found. However, it was found that women with the wish for self-employment self-report significantly more fear of entrepreneurial failure than women who already started their own businesses. The findings indicate that entrepreneurial fear-of-failure has an effect on the probability of being a women entrepreneur.

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