

Female Founding: An Institutional Theory Perspective on the Effect of Gender-Specific Prejudices in Germany

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This research is focused on whether female entrepreneurs face institutional discrimination based on prejudices. Therefore, in consideration of the institutional theory, this paper aims to clarify how informal institutions, such as norms, values and attitudes of society impact female entrepreneurship. To visualize these informal norms, values and attitudes of society towards women, common prejudices against women were utilized.

In-depth interviews with female entrepreneurs (n = 19) were conducted and an inductive qualitative analysis was performed to examine the extent to which societal perceptions and attitudes, expressed through prejudices, regarding the education and entrepreneurial skills of women, influence the motivation and self-perception of female entrepreneurs.

The results revealed that the analyzed prejudices represent obsolete social perceptions against women without validity and justification. However, the results demonstrate the negative influence – directly or indirectly – of prejudices on the behavior, career choices, motivation, and self-perception of female entrepreneurs. The results provide possible explanations for the differences between women and men in entrepreneurship and thus advance the discussion on the underrepresentation of women in entrepreneurial settings.

Keywords: entrepreneurship, female entrepreneurship, institutional theory, prejudice, discrimination

INTRODUCTION

In Germany, as a result of the declining labor market capacity and the positive development of the domestic economy, around 605.000 new businesses were created in 2019. However, when examining the

new founded ventures in more detail, it is conspicuous that a divergence exists between male and female founders. According to the Kreditanstalt für Wieder Aufbau (KfW), the overall number of new female-founded businesses (215.000) has remained stable compared to the previous year, however, the overall share has decreased, continuing a trend that has been evident for years (Metzger, 2020).

The reasons for the underrepresentation of women in entrepreneurial contexts are commonly related to the institutional setting. In these settings, institutions significantly influence the opportunity or necessity of entrepreneurship (Warnecke, 2013). Various studies suggest that informal institutions mediate the relationship between formal institutions and entrepreneurial behavior (Busch et al., 2020; Welter & Smallbone, 2014; Tonoyan et al., 2010). However, the extent to which informal institutions mediate or moderate this relationship – positively or negatively – remains relatively unclear (Gimenez-Jimenez et al., 2020). However, it is evident that institutional aspects – both formal and informal institutions – have a significant impact on female entrepreneurship (Busch et al., 2020). Notably, the influence of informal institutions has been studied in a variety of national and international settings, although with a narrow focus on – for example – venture financing or venture performance (Edelman et al., 2018; Zhao & Yang, 2020). There is, however, a need to examine the influence of informal institutions in the wider entrepreneurial context. For this reason, this paper identifies further areas of institutional discrimination against women in the entrepreneurial environment, using the case of Germany.

This paper draws on institutional theory (North, 1990) as the central framework to address this gap in literature by examining the influence of informal institutions (societal perceptions and attitudes, expressed through prejudices) regarding women's educational level and entrepreneurial skills on the motivation and self-perception of female entrepreneurs. Institutions - both formal and informal institutions – function as promoting and/or restricting influences on entrepreneurship, creating either opportunities through implementing appropriate and effective frameworks, or adversely affecting entrepreneurial development through the absence or deficiencies of appropriate institutional settings (Polishchuk, 2001). Here, formal institutions refer to formalized political, judicial, and economic rules and organizations, whereas informal institutions include non-formalized norms, values, and attitudes of society. The consideration of the German entrepreneurial context represents arguably an appropriate setting, as well-established formal institutions provide a non-discriminatory environment; however, informal norms and values are a major influence on entrepreneurial and economic success. Empirically, the paper is based on qualitative data, obtained through in-depth, semi-structured interviews with female entrepreneurs. Drawing on the data, the paper examines the informal institutional-based disadvantages of women in the entrepreneurial context. In particular, this paper analysis the extent to which societal perceptions and attitudes, expressed through prejudices, regarding education and entrepreneurial skills of women, influence the motivation and self-perception of female entrepreneurs.

The findings clearly highlight that the considered informal institutions (societal perceptions and attitudes, expressed through prejudices) do not reflect societal reality, and therefore lack any validity. However, the findings also suggest that informal institutions influence women's educational choice and entrepreneurial skills and, consequently, motivation and self-perception of female entrepreneurs. Thus, the paper highlights the need for a further analysis of the influence of informal institutions in the wider entrepreneurial context of women, especially in the areas of education and entrepreneurial skills.

By building on the institutional theory, the paper contributes to the existing literature in two aspects. First, this research highlights the necessity of considering the specific institutional context when examining entrepreneurship (Stephan et al., 2015; Schölin et al., 2017). This is demonstrated by the examined effects of informal institutions on women's entrepreneurial behavior. Furthermore, this paper suggests that informal institutions not only influence women's entrepreneurial behavior directly – through direct disadvantage in venture financing (Edelman et al., 2018) – but also indirectly – such as in the choice of education. Specifically, this research argues that it is not only the entrepreneurial context that is relevant when considering entrepreneurship, but rather the overall societal context that must be considered. Based on this conceptual background, the paper addresses the following questions: Do the considered prejudices represent obsolete social perceptions, or do they reflect societal reality? To what extent do women experience

disadvantages regarding education and entrepreneurial skills as a result of informal institutions in the entrepreneurial context?

LITERATURE REVIEW

Institutional Embeddedness of Female Entrepreneurship

Within the New Institutional Economics, institutions constitute the basis of economic activity. According to North (1990, 1991, 1995, 2010), these institutions, both formal and informal, are devised constraints which define the framework of interaction within politics, economy and society. In this regard, formal institutions relate to formalized constraints, including political, judicial and economic rules as well as contracts. In contrast, informal institutions relate to non-formalized, or uncodified constraints, such as norms, values, customs and traditions of society (North, 1995). Thus, institutions define the boundaries of entrepreneurial action. In this context, formal institutions provide the regulatory framework, while informal institutions constitute the societal accepted basis of entrepreneurship (Wade-Benzoni et al., 2002). Thus, institutions – including the interaction of formal and informal institutions – determine the modes in which entrepreneurs are limited, enabled, and guided by the institutional framework (Nooteboom, 2002).

Within institutional theory, the concept of “embeddedness” – i.e., the embedding or integration of culture (customs, traditions, norms, and religion) in society – is proposed (Williamson, 2000). According to North (1990), these informal institutions are specific to culture and thus, are deeply embedded in society. Furthermore, informal institutions are rather abstract and are therefore experienced to a limited extent (Helmke & Levitsky 2004). Nevertheless, formal, and informal institutions interact and influence individual behavior (North, 1990). Moreover, North (1995) and Williamson (2000) emphasize the path-dependency of informal institutions, describing the distinct influence of the past on the present and future. As a result, informal institutions change very slowly (North, 1991; North, 1995; Williamson, 2000).

Within liberal-democratic societies, formal institutions are designed to be gender-neutral, to prevent discrimination. Here, formal institutions, such as constitutions, common and specific (by)laws, and contracts, govern interactions and either complement or supersede informal institutions (North, 1990; North, 1991). Accordingly, formal institutions compensate negative gender-specific informal institutions. In the case of women, these specific formal institutions apply particularly to labor market and family policies (Welter & Smallbone, 2008).

These gender-specific informal institutions influence the status of women in society and their economic function. This applies especially to religion, values, customs, and traditions (Welter & Smallbone, 2008). According to scholars of female entrepreneurship, informal institutions – such as values – significantly account for the underrepresentation of women in new firm creation (Brush et al., 2009; Aidis et al., 2007). Research has highlighted that gender roles – determined by informal institutions – constitute the basis of gender discrimination (Brains et al., 2013; Militia & Broten, 2017). Therefore, the gender gap in entrepreneurship is thus not only based on individual differences, but also on gender discrimination. In this context, Charles et al. (1996) defines gender discrimination as the unequal distribution of opportunities, resources and rewards based on gender. This discriminating impact of informal institutions – especially societal values – influences women's decision regarding new firm creation, but more importantly, the decision to participate in the labor market in general (Terrell & Troilo (2010). Hence, societal values, expectations, and attitudes influence the image of female entrepreneurs in particular, but also shape the societal acceptance of female entrepreneurship in general (Welter, 2004; Achtenhagen & Welter, 2011). Respectively, research has indicated that entrepreneurship is associated with predominantly male attributes, such as independence, aggressiveness, and autonomy (Fagenson & Marcus, 1991; Achtenhagen & Welter, 2011; Gupta et al., 2009). Whereas female entrepreneurship is determined by other cultural norms and values, such as the importance of the family and female participation in economic activities in general (Welter & Smallbone, 2008). As a result of these differing societal expectations, tradeoffs between economic opportunities and family responsibilities may be expected. The conflicting objectives highlight the role of the family as both, a useful resource or possible constraint on female entrepreneurship (García & Capitán, 2016). Thus, according to Welter and Smallbone (2008, p. 507), informal institutions “influence

the responsibilities, tasks and the workload” of female entrepreneurs and define the “assistance from their milieu they might expect” when entering entrepreneurial opportunities.

Finally, institutional change, the change of formal and informal institutions, significantly influences (female) entrepreneurship. This applies in particular to changes in the regulatory framework: For instance, barriers to market entry may be reduced or removed, creating opportunity for entrepreneurial activity, and vice versa. Examples of gender-specific changes of the German regulatory framework, to support female entrepreneurship, include the introduction of maternity protection laws and the recognition of mothers' child-rearing activities for pensions entitlements (maternity pension). According to Williamson (2000), the change of formal institutions is, in comparison to informal institutions, accomplishable within short periods of time. Accordingly, the effects of informal institutions, particularly as a result of the path-dependent behavior, are of distinct relevance to (female) entrepreneurship and direct attention to the possible effects of societal attitudes, expressed through prejudices, towards female entrepreneurs.

Gender Roles and Female Entrepreneurship in Germany

Currently, the Federal Republic of Germany has implemented various initiatives to promote entrepreneurship and the creation of new ventures and support existing enterprises (Bundesministerium für Wirtschaft und Energie, 2018). In this context, a particular focus is on increasing the number of businesses started by women, since the overall share of new female-founded businesses is declining for several years (Metzger, 2020). This development reflects two trends: In general, the number of new founded businesses (NFB) is declining since 2014, however, since 2018, a recovery in the number of NFB's by men is observable, whereas a stagnation in the number of NFB's by women is evident (Metzger, 2020). In total, women created 215.000 new business in 2019, in contrast to 390.000 NFB's created by men, representing a 36% share of new female-founded businesses (Metzger, 2020). In contrast, the current distribution of women and men in the overall workforce – with an overall workforce of 41.044.000, with 19.253.000 (46,9%) women and 21.791.000 (53,1%) men (Statistisches Bundesamt, 2020) – implies a quasi-parity, however, a distinct gender gap continues to exist in the entrepreneurial context.

Female entrepreneurship is influenced by various factors, including the value attributed to female employment and the overall role of women in society (Achtenhagen & Welter, 2011). “This implies that female entrepreneurship in each country has its own characteristics and needs to be studied in its own socio-economic context” (Sarfaraz et al., 2014). Accordingly, female entrepreneurship in this paper is examined in the German context only, as different societal contexts are not comparable.

A more egalitarian attitude increasingly replaces the rather traditional attitude of society towards working women in Germany. (Rainer et al., 2018). This trend is reflected in the continually increasing numbers of working women in Germany: In 1959, women accounted for only 37,6% of the total workforce, whereas in 2019, this rate increased to almost 47,0% (Statistisches Bundesamt, 2020). However, nearly half of all working women (48,4%) are in part-time employment, which represents a compromise between the traditional role allocation in which women withdraw from the labor force after the birth of children, and men continue full-time employment (Institut für Arbeit und Qualifikation, 2020).

The role of women in society has changed from a rather traditional attitude – which is based on the gendered division of labor – to a more egalitarian attitude (Rainer et al., 2018). This is in particular reflected in the changed attitude towards traditional role allocations between women (household and child rearing) and men (full-time employment). For instance, a Ifo Institute for Economic Research survey indicates that the support of a traditional allocation of roles has been declining drastically since the 1990s (Rainer et al., 2018). Political measures have accompanied these changes in societal attitudes: This includes the recognition of mothers' child-rearing activities for pensions entitlements (maternity pension), the statutory right to daycare for children from the age of one year, as well as the systematic expansion of all-day care in schools.

Research indicates that career choices of women reflect societal attitudes and expectations regarding the ‘correct’ profession (Holst, 2002). This is particularly evident in most Western cultures, where entrepreneurship, but economic activities in general, are mainly attributed to male characteristics (Bruni et al., 2004; Ahl 2006). Schumpeter (1983, p. 93) already described the entrepreneur as a determined man,

who is motivated by “the dream and the will to found a private kingdom, usually, but not necessarily, also a dynasty”. This heroic, predominantly male glorification of the entrepreneur also applies particularly to the German society (Schmidt, 2002). Consequently, societal attitudes and “values implicitly understand women’s entrepreneurship as less desirable and as an exception to the predominant male norm, which in turn affects the self-perceptions and individual attitudes of potential female entrepreneurs” (Achtenhagen & Welter, 2011, p. 768).

Gender-Specific Prejudices in Germany

Within the socio-cultural perspective of psychology, prejudices are considered to be a norm embedded in the social environment (Duckitt, 1992), thus, prejudices can be considered informal institutions, or at least, prejudices are rooted in informal institutions. The research within this perspective related to the influence of social norms on prejudice attitudes of individuals (Turner & Giles, 1981). Within this context, the emphasis is on two mechanisms primarily responsible for transmitting prejudice influences: Socialization and Conformity. The former relates to a gradual and complex process of learning and acquiring attitudes (Westie, 1964; Proshansky, 1966), the later relates to the embeddedness in a milieu with distinct discriminatory socio-cultural factors and attitudes (Pettigrew, 1958; Westie, 1964). In general, explicit and implicit prejudices are differentiated: Here, explicit prejudices refer to intentionally adopted negative attitudes based on distinctive characteristics, while implicit prejudices refer to unconscious associations that, nevertheless, negatively influence thinking and acting (Gawronski & Bodenhausen, 2006; Payne et al., 2010).

According to recent statistical surveys, approximately 63% of the German population have prejudiced attitudes towards women (United Nations Development Program [UNDP], 2020). In the following, the validity of the most common prejudices is tested:

“Women in Germany have a lower level of education than men”

The UNDP (2020) study indicates that 15% of the German society have prejudiced attitudes regarding the educational level of women. Yet 55% of all high school graduates (Statistisches Bundesamt, 2021a) and 49,8% of all university students (Statistisches Bundesamt, 2021b) are women. However, the statistics prove that differences exist in the perused fields of studies.

For comparison, in medical study programs, women are represented at 68,1%, whereas in engineering women account for only 23,8% (Statistisches Bundesamt, 2021c). Despite equal educational opportunities, gender differences among students still exist, particularly in performance and motivation, vocational aspirations, and participation in different fields of studies (Kollmayer et al., 2018). These differences can be attributed to the learned gender-specific characteristics, which are based on socially shared beliefs (gender stereotypes) about the role of men and women in society (Ashmore & Del Boca, 1979). Gender stereotypes are distinguished between descriptive components – e.g., characteristics men and women do possess – and prescriptive components – e.g., characteristics men and women should possess (Burgess & Borgida, 1999). These societal expectations regarding gender-specific preferences and behaviors are adopted by children. In psychology, this process of adopting gender specific preferences, skills, personality attributes, behaviors and self-concepts is referred to gender typing (Berenbaum et al., 2008). Through this process, children learn the gender-specific societal roles, the gender-specific societal expectations, and the gender-specific characteristics (Bem, 1083). Unfortunately, these stereotypes are often confirmed, resulting in self-fulfilling prophecies and perceptual biases (Jussim et al., 1996).

In Germany, a large part of the population still has a very traditional view of the distribution of roles between men and women (Rainer et al., 2018). Prentice and Carranza (2003) noted, that socially shared beliefs mostly remain resilient to change, highlighting the path-dependent characteristic of stereotypes as informal institutions (North, 1995; Williamson, 2000).

“Women are untalented in science and technology”

As previously mentioned, no differences in educational levels between women and men exist. However, a detailed examination of natural science and technology-oriented study programs reveals, that within natural sciences (biology, chemistry, physics, and other) women represent approximately 47,1%. In contrast, only 23,2% female students study technology-oriented degree programs (engineering or computer sciences) (Statistisches Bundesamt, 2021c). The particularly evident gender differences are especially related to societal expectations regarding suitable occupations for women and men (Holst, 2002), and thus are resulting in stereotype threat. Gender-based prejudicial expectations are impairing women's performance in natural and technology-based science, including math (Ellison & Swanson, 2010; Inzlicht & Ben-Zeev, 2000; Schmader, 2002; Spencer et al., 1999), engineering (Bell et al., 2003; Logel et al., 2009) as well as chemistry and physics (Maries & Singh, 2015; Sunny et al., 2017). In addition, Cheryan et al. (2009) noted that stereotype threat not only impairs performance, but also increases women's belonging concerns to a specific domain while at the same time decreasing their motivation to pursue a career within the particular domain. Accordingly, this discrepancy is not related to women's ability or understanding but to society's perception of a scientist or engineer, which is still male attributed.

“Women cannot be successful entrepreneurs”

Until now, entrepreneurship is mainly attributed with male characteristics (Bruni et al., 2004; Ahl 2006); however, this perspective is based on historic role allocations. These “gender stereotypes influence men's and women's perceived competence and worthiness of status in a particular context” (Ladge et al., 2019, p. 619), causing women to question whether their entrepreneurial behavior meets societal expectations (Ladge et al., 2019). As a result of the incongruity of the female identity and the primarily male identity of entrepreneurship and the societal expectations associated with the entrepreneurial identity, female entrepreneurs may be exposed to impostor fears (Ladge et al., 2019). The impostor phenomenon, first introduced by Clance and Imes (1978), is defined as a condition characterized by skepticism regarding personal abilities or success. In this context, impostor fears refer to a persistent internalized anxiety of being exposed as an impostor (Ladge et al., 2019; Bernard et al., 2002). According to the research of Clance and Imes (1978), this phenomenon is particularly evident in highly successful women. Ladge et al. (2019) identified the contradicting societal roles of a woman (as a mother and caregiver) and of an entrepreneur as a major driver of impostor fears among women. As a result, female entrepreneurs are skeptical or insecure about personal capabilities and success. As a result of this attitude, society also sees women as less legitimate, credible and committed compared to their male counterparts (Eddleston et al., 2016).

Altogether, the impostor phenomenon (and impostor fears) is reducing women's desire for entrepreneurial activities. However, currently about 33% of all private businesses are women owned (Halim, 2020). Therefore, gender parity has not yet been achieved, however, there are sufficient examples of successful women entrepreneurs who are slowly changing the outdated stereotype of the “male” entrepreneur.

“Women are not suitable for a management position”

Currently, around 15% of all board members of all companies listed in the Deutsche Aktien Index (DAX) are women (Kirsch & Wrohlich 2020). This demonstrates that, despite existing gender parity in the workforce, only few women reach top management positions in large German corporations. Yet, current surveys indicate that, a substantial majority supports an increase of women in top management positions (Wenter et al., 2019). In addition, current research suggests that corporations with greater representation of women in top management positions recognize an enhanced firm performance (Smith et al., 2006; Dezső & Ross, 2008; Lyngsie & Foss, 2017).

Current scientific debates attempt to elaborate and explain the reasons for women's scarcity in senior management positions. In this context, personal and family responsibilities are reported as the main reason. The author Ellen Gilchrist (2002, p. 256) describes the family work relationship as a “war, with guilt as their nuclear weapon and mutually assured destruction as their aim”. Yet, these two factors – personal and

family responsibilities – are based on societal stereotypes and prejudices. Stereotypes – generalized descriptive and prescriptive attributes shared by society – commonly associated with leadership include being White and Male. This stereotypical leadership perspective can result in biased perceptions and evaluations of those who do not conform with the associated attributes. (Block et al., 2011; Burgess et al., 2012). As a result, women experience a variety of barriers at work – generally referred to as the ‘glass ceiling’ – hindering advancements in career (Lyness & Heilman, 2006). Compared to men, women usually have fewer managerial responsibilities (Wajcman, 2013), receive less payment for same qualification and job (Boll & Lagemann, 2018; Aksoy et al., 2021) and also are less integrated in important networks with sponsors or mentors (Cannings & Montmarquette, 1991; Lyness & Thompson, 2000).

Furthermore, research suggests that women are more frequently appointed to ‘glass cliffs’ – precarious positions involving greater risk and criticism – than men (Haslam & Ryan, 2008; Ryan et al., 2008). Overall, the prejudicial perception of women’s qualifications result in a scarcity of women in top management positions.

The analysis reveals that the prejudices are based on obsolete social perceptions and lack validity and justification. However, these prejudices still negatively influence female entrepreneurs' opportunities, motivation, and self-perception. Furthermore, the examination of these prejudices indicates the path-dependent characteristic of stereotypes and prejudices, in particular, if stereotypes and prejudices are based on societal expectations.

METHODOLOGY

Aim and Design

This study explores the possible impact of prejudices on female entrepreneurs. Expert interviews with female entrepreneurs in the Hoch Taunus Region, Germany, were conducted to determine in which areas women are particularly disadvantaged by prejudices. An inductive qualitative content analysis was performed to identify themes related to areas of disadvantage for female entrepreneurs. The interviewees' responses also generated answers regarding the self-assessment and self-perception of female entrepreneurs in Germany.

Sample

The sample is composed of nineteen (n=19) female entrepreneurs, who established their business within the last ten years. Of these, nine women founded a Start-Up, defined as a “temporary organization in search of a scalable, repeatable, profitable business model” (Blank & Dorf, 2012, p. 4) and ten women are self-employed business owners. The enterprises operate in a variety of different sectors, including tourism, healthcare, consumer goods and consulting. The majority (89%) of the enterprises were financed by the founders’ own capital, of which five received additional government funding. Only two of the nineteen enterprises (11%) received venture capital funding.

The Start-Ups were identified through in-depth research in business registers of the different cities and districts of the Hoch Taunus Region and through approaching contacts of the Accadis University of Applied Science and the Accadis Institute of Entrepreneurship. For the selection of the organizations, two relevant criteria were applied: First, the majority of the business founders had to be women, second, the business must have been created in the past five years.

Based on these criteria, 32 potential firms were identified in the various company registers. Since the interviews were conducted in the first half of 2020, the low % response rate of 22% (n = 9) can be explained by the impact of the initial "lockdown" in March and April as a response to the COVID-19 pandemic. To increase the database, the 23 firms that did not respond in the initial phase of interviews were contacted again in January 2023 and asked to participate again. As a result, 10 additional companies from the original 32 were recruited for the interviews.

Data Collection

Data was collected from participants via phone and/or video semi-structured interviews. To ensure an effective interview process, we followed the recommendations of Dresing and Pehl (2015). The first part of the interview focused on general information, such as structure, size, industry affiliation and business model of the organizations.

The second part of the interview related to the above discussed prejudices against women. In this section, the participants were asked about their business creation. In particular, the asked questions aimed to explore the disadvantages of women throughout the Start-Up founding process, seeking particularly to identify the influence of societal norms and values on their motivation and self-perception.

The last part of the interview consisted of demographic questions about the participants. A pre-test to evaluate the quality of the interview guide was conducted. For this purpose, the interview guide was discussed with several expert scholars in the field of entrepreneurship to ensure that all questions were meaningful and organized. Based on the provided feedback, some questions were rephrased.

Data Analysis

A qualitative content analysis – based on the approach described by Mayring (2014) – was performed, using three main stages: paraphrasing content-bearing passages, generalizing paraphrased content and categorizing new statements to identify general themes. As part of the first main section of the analysis, all non-substantial text segments were removed, and translated into a uniform language.

The paraphrased content was generalized and abstracted within the second main section by coding the content-bearing passages. The codes of the similar paraphrased and generalized statements were combined into subcategories. Similarly, all non-essential paraphrased and generalized statements were eliminated.

Finally, the subcategories of the resulted in generalized themes, based on patterns identified in the responses. To ensure completeness and accuracy, the assigned codes and subcategories were regularly reevaluated to ensure reliability and consistency. In addition, the results were also compared with the original material. For the evaluation and analysis, the software MAXQDA was used.

The Accadis Research Committee and the Head of the Accadis Institute of Entrepreneurship approved the study.

RESULTS

The results are presented in two sections. First, the profiles of the interviewed participants are presented and second, the themes resulting from the analysis are presented. In Table 1, the socio-demographic results of the participants and general information regarding the firms are presented.

TABLE 1
PROFILE OF PARTICIPANTS AND BUSINESSES

Demographics of Businesses Participants (N = 19)
Average Age 39 Years
Highest Level of Education
Associate Degree 11 %
Bachelor's Degree 32 %
Master's degree 52 %
PhD I Doctorates 5 %

Demographics of Businesses Participants (N = 19)

Average Time on Market 3,8 Years

Industries

Consulting 42 %

Customer Goods 32 %

Healthcare 21 %

Tourism 5 %

Type of Funding

Own Capital 89 %

Venture Capital 11 %

Public Funding 26 %

The participants were between 23 and 63 years old. The educational background ranged from associate degree to doctorates. The businesses established by the female entrepreneurs had been operating on the market for an average of almost four years (3,8) at the time of the initial survey in 2020. The enterprises operate in various sectors, such as tourism, healthcare, consulting and consumer goods, and were started primarily through equity.

Throughout the analysis, four main themes emerged: *Female Entrepreneurship*, *Women in Business*, *Education and Self-Perception*. All main themes consist of additional sub categories, that represent content variations.

**TABLE 2
MAIN THEMES**

Category	Sub-Categories
Female Entrepreneurs	Acceptance Opportunities and Risks Motivators and Goals
Women in Business	Career Opportunities Family and Career Women in Leadership
Education	School and University Entrepreneurship Technology & Science
Self-Perception	Skills and Competences Risk Success

Female Entrepreneurship

The majority of the participants experienced a high level of acceptance towards the decision to start a business, which is evident in the support received by the personal and business environment. The women described the acceptance and support received: “We have received great feedback from family and friends [...] but of course, in business, you do not get anything for free, but still we have received a lot of support” (I5). Furthermore, the participants emphasized that their acceptance and positive encouragement were significant motivating factors.

The participants consider entrepreneurship per se as an opportunity rather than a risk. This is primarily a result of the positive perception of advantages – which significantly exceed the disadvantages. In fact, many disadvantages associated with employment – insufficient career opportunities, incompatibility of family and career, etc. – are considered as non-existing in self-employment.

The described disadvantages of employment already describe essential motivators and goals of the female founders. In particular, the desire to organize family and career more flexibly and self-realize are important motivators. “I want to work on exciting projects and make a difference [...] but this is only possible to a limited extent in large companies.” (I14). Among the most valued objectives of the participants is their own economic independence. Here, the primary is not financial dependence, but rather self-determined freedom.

Women in Business

Prior to self-employment, all female entrepreneurs started their career in large corporations. However, they noticed that women still receive a significantly lower salary than their male colleagues, and that career opportunities in large corporations are limited. “As a woman, reaching a senior management position is still difficult, at least in some industries. In addition – and this is reflected in the statistics – women receive a comparatively lower remuneration despite equal qualification and tasks” (I4). Furthermore, the participants noted that balancing career (employee) and family remains at the expense of career opportunities. Self-employment, however, is considered an alternative to this.

Reconciliation of family and career is a topic of central importance. The participants reported that the reconciliation of career and family is in general considered critically by corporations. In this regard, participants experienced that absenteeism resulting from pregnancy, childbirth and parenting in particular, are career barriers. This is often the result of rigid and inflexible working arrangements in corporations, which complicate the reconciliation of career and family.

In addition, the interviewed female entrepreneurs mentioned that opportunities for women to advance to leadership positions are limited or predominantly restricted to male colleagues. “As a manager, I constantly had to prove myself to my male colleagues - even though I performed better overall” (I16). Most of the participants reported being underestimated regularly by male and female colleagues. According to the women entrepreneurs, this resulted in a behavior change: The women acted more tough and professional. One of the interviewees elaborated, “Maybe that’s where the stereotype of the typical career woman originates” (I1).

Education

Improved access to education is considered one of the most important economic success factors. However, the participants stated that school education in Germany doesn’t properly prepare individuals for the challenges of being an entrepreneur. This applies to all possible degrees of the German school system. Moreover, even in university education, the training for entrepreneurial activities is inadequate. “General schooling, however, only helps in the formation of interest. A higher school or university eventually prepares for professional life - but unfortunately, not for starting one’s own business” (I5).

Entrepreneurship is an essential part of the economic system. According to the participants, entrepreneurial activities’ importance is well-recognized in society and politics. Nevertheless, entrepreneurship and entrepreneurial skills are neither part of school nor university education. Although universities now offer a selection of programs, the women entrepreneurs noted that a combination of entrepreneurial and technical-application-oriented educational programs remain absent. “To start a

business, it is not enough to know how to fill out a tax return or write a business plan. Technical knowledge for product development is just as essential” (I7).

In Germany, a gender-specific perception regarding the career choice of women and men still prevails, resulting in an underrepresentation of women in technologically and scientifically oriented professions. The participants particularly criticized this fact: “Even today, it is still rather unusual for a woman in Germany to pursue a technical or scientific degree” (I1). Therefore, women entrepreneurs often need to either win a co-founder with the appropriate expertise or acquire external know-how.

Self-Perception

The appropriate skills and competencies are essential for creating a business; however, female entrepreneurs find themselves inadequately prepared for entrepreneurial activities. Partly, the participants attribute this lack of self-confidence to insufficient entrepreneurial education and society’s lack of confidence towards female entrepreneurship in general. “Without the appropriate education, doubts concerning one’s own abilities are – of course – normal, but the existing prejudices certainly increase the doubts” (I5). In addition, all interviewed female entrepreneurs reported that their skills and competences had been underestimated by business partner, bankers, and others, primarily on the basis of gender.

The risk assessment – with regard to entrepreneurial activities – mainly depends on the entrepreneur's personal circumstances. Regarding the assessment of risks of entrepreneurial activities, relevant influencing factors are age financial security and maternity. The risk associated with entrepreneurial activity is generally assessed lower by younger female entrepreneurs than by their older counterparts. Regardless of the age of the women entrepreneurs, the assessment of the risk decreases with increasing financial security, however, increases as a result of having children.

The participants define success beyond pure economic achievements. According to many of the interviewed women entrepreneurs, success is – of course – economically based, but also includes balancing work and family life. “Yes, my company is successful, so I am more independent, have more financial freedom and can spend more time with my children.” (I13). In addition, one interviewee noted that women's business development often requires more time due to the double responsibility of work and family.

DISCUSSION

This study highlights two essential insights: First, the prejudices against women analyzed represent obsolete social perceptions which lack any validity. Second, as a result of these prevailing prejudices, women entrepreneurs are still negatively affected – direct and indirect – by informal institutional discrimination in the German entrepreneurial context.

Indirect Influence of Prejudices

The indirect influence of prejudices on women’s entrepreneurial behavior is particularly evident in career and professional domain choices. Already in school, girls are confronted with prejudices such as “Women are untalented in science and technology”, thus resulting in stereotype threat. Gender-based prejudicial expectations are impairing women’s performance in natural and technology-based science, including math (Ellison & Swanson, 2010; Inzlicht & Ben-Zeev, 2000; Schmader, 2002; Spencer et al., 1999), engineering (Bell et al., 2003; Logel et al., 2009) as well as chemistry and physics (Maries & Singh, 2015; Sunny et al., 2017). In addition, Cheryan et al. (2009) noted that stereotype threat not only impairs performance, but also increases women’s belonging concerns to a specific domain while at the same time decreasing their motivation to pursue a career within the particular domain.

The social restriction of women’s career choices inevitably minimize opportunities for female entrepreneurship. In particular, many of today’s innovative start-ups are founded in science based or technological sectors. However, since women are underrepresented in these specific fields – especially as a result of stereotype threat – fewer women are involved in start-up creations.

Current scientific debates attempt to elaborate and explain the reasons for women’s scarcity in senior management positions. In this context, personal and family responsibilities are reported as the main reason.

The author Ellen Gilchrist (2002, p. 256) describes the family work relationship as a “war, with guilt as their nuclear weapon and mutually assured destruction as their aim”. Yet, these two factors – personal and family responsibilities – are based on societal stereotypes and prejudices. Stereotypes – generalized descriptive and prescriptive attributes shared by society – commonly associated with leadership include being White and Male. This stereotypical leadership perspective can result in biased perceptions and evaluations of those who do not conform to the associated attributes. This perspective can contribute to the scarcity of women in senior management across various professions (Block et al., 2011; Burgess et al., 2012).

In addition, prejudices such as “Women are not suitable for a management position” tend to reinforce stereotypical perceptions, thus resulting in stereotype threat. Thus, “the pernicious effects of gender stereotype-based threat can result in performance decrements that can accumulate over time and result in disengagement and decreased leadership aspirations” (Hoyt & Murphy, 2016, p. 388). This may be – at least partially – a reason why women are inadequately represented in firm succession.

Direct Influence of Informal Institutional Discrimination

In contrast to indirect influences – particularly those affecting behavior, career choices and motivation to pursue certain professions – several prejudices also directly influence women’s entrepreneurial activities. Prejudices as “Women in Germany have a lower level of education than men” actively degrade women’s qualifications. As a result, women experience a variety of barriers at work – generally referred to as the ‘glass ceiling’ – hindering advancements in career (Lyness & Heilman, 2006). Compared to men, women usually have fewer managerial responsibilities (Wajcman, 2013), receive less payment for same qualification and job (Boll & Lagemann, 2018; Aksoy et al., 2021) and also are less integrated in important networks with sponsors or mentors (Cannings & Montmarquette, 1991; Lyness & Thompson, 2000).

Furthermore, research suggests that women are more frequently than men appointed to ‘glass cliffs’ – precarious positions involving greater risk and criticism (Haslam & Ryan, 2008; Ryan et al., 2008). Overall, the prejudicial perception of women’s qualification results in a scarcity of women in top management positions.

The prejudice that “Women cannot be successful entrepreneurs” causes similar negative impact, affecting essential elements of the start-up founding process. In particular, start-up financing and entrepreneurial networking are affected. Current studies examine the impact of loan officers' personality, experiences, beliefs and perceptions on the loan application process. The two studies – both based on UK data – conclude that gender-based differences are evident in the assessment criteria for approving loan applications and that these differences are independent of the gender of the loan officer (Carter et al. 200; Wilson et al. 2007). However, the reasons for gender discrimination are unclear. One possible explanation for this could be that, as a result of stereotypes and prejudices, loan offices discriminate – consciously or subconsciously – against women entrepreneurs.

CONCLUSION

Prejudices still significantly restrict women in Germany from engaging in entrepreneurial activities. In entrepreneurship research, the topic is currently insufficient, yet it may provide a possibility to explain many differences between male and female entrepreneurs. We propose to differentiate between direct and indirect influences. We are aware that direct influences – i.e., the assessment of negative effects for female entrepreneurs based on an individual’s prejudices – will be extremely difficult to research.

However, it is evident that women increasingly participate in entrepreneurial activities and overcome societal barriers. Through applying an institutional theory perspective, we highlighted the path-dependency of prejudices and their negative impact on women's entrepreneurial activities. With our results - especially the distinction between direct and indirect disadvantages for female entrepreneurs due to societal prejudices - we contribute to the further understanding of the differences between male and female entrepreneurs.

In addition, based on the results, implications for policymakers can be derived. First, policymakers can directly communicate, for example, through campaigns, the disadvantages of societal prejudice for women.

Second, girls should be promoted in STEM subjects while still in school, for one, and encouraged to pursue university education in these fields.

In principle, we think that a more detailed examination of the negative effects of stereotypes and prejudices can increase awareness and thus may potentially reduce societal and individual stereotypes and prejudices. Therefore, for future research, we suggest that the effects of individual prejudices and stereotypes be more closely examined.

REFERENCES

- Achtenhagen, L., & Welter, F. (2011). 'Surfing on the ironing board'—The representation of women's entrepreneurship in German newspapers. *Entrepreneurship & Regional Development*, 23(9–10), 763–786.
- Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship Theory and Practice*, 30(5), 595–621.
- Aidis, R., Welter, F., Smallbone, D., & Isakova, N. (2007). Female entrepreneurship in transition economies: The case of Lithuania and Ukraine. *Feminist Economics*, 13(2), 157–183.
- Aksoy, C.G., Özcan, B., & Philipp, J. (2021). Robots and the gender pay gap in Europe. *European Economic Review*, 103693.
- Ashmore, R.D., & Del Boca, F.K. (1979). Sex stereotypes and implicit personality theory: Toward a cognitive—Social psychological conceptualization. *Sex Roles*, 5(2), 219–248.
- Bell, A.E., Spencer, S.J., Iserman, E., & Logel, C.E.R. (2003). Stereotype threat and women's performance in engineering. *Journal of Engineering Education*, 92(4), 307–312.
- Bem, S.L. (1983). Gender schema theory and its implications for child development: Raising gender-aschematic children in a gender-schematic society. *Signs: Journal of Women in Culture and Society*, 8(4), 598–616.
- Berenbaum, S.A., Martin, C.L., & Ruble, D.N. (2008). Gender development. In W. Damon, & R. Lerner (Eds.), *Advanced child and adolescent development* (pp. 647–696). Wiley.
- Bernard, N.S., Dollinger, S.J., & Ramaniah, N.V. (2002). Applying the big five personality factors to the impostor phenomenon. *Journal of Personality Assessment*, 78(2), 321–333.
- Blank, S., & Dorf, B. (2012). *The startup owner's manual: The step-by-step guide for building a great company*. K & S Ranch. Inc, California. PubMed Abstract OpenURL.
- Block, C., Koch, S., Liberman, B., Merriweather, T., & Roberson, L. (2011). Contending with stereotype threat at work: A model of long-term responses. *The Counseling Psychologist*, 39, 570–600.
- Boll, C., & Lagemann, A. (2018). *Gender pay gap in EU countries based on SES* (2014). Luxembourg, Publication Office of the European Union. Doi, 10, 978935.
- Branisa, B., Klasen, S., & Ziegler, M. (2013). Gender inequality in social institutions and gendered development outcomes. *World Development*, 45, 252–268.
- Brush, C.G., De Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*.
- Bruni, A., Gherardi, S., & Poggio, B. (2004). Entrepreneur-mentality, gender and the study of women entrepreneurs. *Journal of Organizational Change Management*, 17(4), 256–68.
- Bundesministerium für Wirtschaft und Energie. (2018). *Förderlotse*. Bundesministerium für Wirtschaft und Energie. Retrieved from <https://www.bmwi.de/Redaktion/DE/Publikationen/Mittelstand/foerderlotse.html>
- Burgess, D., & Borgida, E. (1999). Who women are, who women should be: Descriptive and prescriptive gender stereotyping in sex discrimination. *Psychology, Public Policy, and Law*, 5(3), 665.
- Burgess, D., Joseph, A., van Ryn, M., & Carnes, M. (2012). Does stereotype threat affect women in academic medicine? *Academic Medicine*, 87(4), 506–512.
- Busch, R., Gassemi, K., Papastamatelou, J., Unger, A., & May, C. (2020). Perception of formal and informal institutions by entrepreneurs in China, Morocco, and Germany—A cross cultural pilot study. *International Journal of Management and Economics*, 56(4), 324–338.

- Cannings, K., & Montmarquette, C. (1991). Managerial momentum: A simultaneous model of the career progress of male and female managers. *ILR Review*, 44(2), 212–228.
- Charles, M., Reskin, B., & Padavic, I. (1996). Women and men at work. *Social Forces*, 75(1). Pine Forge Press.
- Cheryan, S., Plaut, V.C., Davies, P.G., & Steele, C.M. (2009). Ambient belonging: How stereotypical cues impact gender participation in computer science. *Journal of Personality and Social Psychology*, 97(6), 1045.
- Clance, P.R., & Imes, S.A. (1978). The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research & Practice*, 15(3), 241.
- Dezső, C.L., & Ross, D.G. (2008). 'Girl Power': Female participation in top management and firm performance. University of Maryland Robert H Smith School of Business.
- Dresing, T., & Pehl, T. (2017). Praxisbuch Interview, Transkription & Analyse. *Anleitungen und Regelsysteme für qualitativ Forschende*. 6. Aufl. Marburg.
- Duckitt, J.H. (1992). Psychology and prejudice: A historical analysis and integrative framework. *American Psychologist*, 47(10), 1182.
- 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. *Entrepreneurship Theory and Practice*, 40(3), 489–514.
- Edelman, L.F., Donnelly, R., Manolova, T., & Brush, C.G. (2018). Gender stereotypes in the angel investment process. *International Journal of Gender and Entrepreneurship*.
- Ellison, G., & Swanson, A. (2010). The gender gap in secondary school mathematics at high achievement levels: Evidence from the American Mathematics Competitions. *Journal of Economic Perspectives*, 24(2), 109–28.
- Fagenson, E.A., & Marcus, E.C. (1991). Perceptions of the sex-role stereotypic characteristics of entrepreneurs: Women's evaluations. *Entrepreneurship Theory and Practice*, 15(4), 33–48.
- García, P.O., & Capitán, Á.O. (2016). Elements that contribute to boost female entrepreneurship: A prospective analysis. *Suma de Negocios*, 7(15), 54–60.
- Gawronski, B., & Bodenhausen, G.V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin*, 132(5), 692.
- Gilchrist, E. (2002). The middle way: Learning to balance family and work. In Hanauer, C. (Ed.), *The Bitch in the House: 26 Women Tell the Truth about Sex, Solitude, Work, Motherhood, and Marriage*. William Morrow and Co., New York, NY, pp. 249–56.
- Gimenez-Jimenez, D., Calabrò, A., & Urbano, D. (2020). The neglected role of formal and informal institutions in women's entrepreneurship: A multi-level analysis. *Journal of International Entrepreneurship*, 18(2), 196–226.
- 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. *Entrepreneurship Theory and Practice*, 33(2), 397–417.
- Halim, D. (2020). *Women entrepreneurs needed – stat!* World Bank. Retrieved from <https://blogs.worldbank.org/opendata/women-entrepreneurs-needed-stat>
- Haslam, S.A., & Ryan, M.K. (2008). The road to the glass cliff: Differences in the perceived suitability of men and women for leadership positions in succeeding and failing organizations. *Leadership Quarterly*, 19, 530–546.
- Helmke, G., & Levitsky, S. (2004). Informal institutions and comparative politics: A research agenda. *Perspectives on Politics*, 2(4), 725–740.
- Holst, E. (2002). Institutionelle Determinanten der Erwerbsarbeit. In Gender matters: Feministische Analysen zur Wirtschafts – und Sozialpolitik. F. Maier, & A. Fiedler (Eds.), *Flw-Forschung* (pp.89–109). 42/43. Berlin: Edition Sigma.

- Institut für Arbeit und Qualifikation. (2020). *Teilzeitquote insgesamt und nach Geschlecht 1991-2019*. Universität Duisburg-Essen. Retrieved from http://www.sozialpolitik-aktuell.de/files/sozialpolitikaktuell/_Politikfelder/Arbeitsmarkt/Datensammlung/PDF-Dateien/abbIV8d.pdf
- Inzlicht, M., & Ben-Zeev, T. (2000). A threatening intellectual environment: Why females are susceptible to experiencing problem-solving deficits in the presence of males. *Psychological Science, 11*(5), 365–371.
- Jussim, L., Eccles, J., & Madon, S. (1996). *Social perception, social stereotypes, and teacher expectations: Accuracy and the quest for the powerful self-fulfilling prophecy*.
- Kirsch, A., & Wrohlich, K. (2020). Frauenanteil in Spitzengremien großer Unternehmen steigen – abgesehen von Aufsichtsräten im Finanzsektor. In *DIW Wochenbericht, 4*. Retrieved from https://www.diw.de/documents/publikationen/73/diw_01.c.703374.de/20-4.pdf
- Kollmayer, M., Schober, B., & Spiel, C. (2018). Gender stereotypes in education: Development, consequences, and interventions. *European Journal of Developmental Psychology, 15*(4), 361–377.
- Ladge, J., Eddleston, K.A., & Sugiyama, K. (2019). Am I an entrepreneur? How imposter fears hinder women entrepreneurs' business growth. *Business Horizons, 62*(5), 615–624.
- Logel, C., Walton, G.M., Spencer, S.J., Iserman, E.C., von Hippel, W., & Bell, A.E. (2009). Interacting with sexist men triggers social identity threat among female engineers. *Journal of Personality and Social Psychology, 96*(6), 1089–1103.
- Lyness, K.S., & Heilman, M.E. (2006). When fit is fundamental: Performance evaluations and promotions of upper-level female and male managers. *Journal of Applied Psychology, 91*, 777–785.
- Lyness, K.S., & Thompson, D.E. (2000). Climbing the corporate ladder: Do female and male executives follow the same route? *Journal of Applied Psychology, 85*(1), 86.
- Lyngsie, J., & Foss, N.J. (2017). The more, the merrier? Women in top-management teams and entrepreneurship in established firms. *Strategic Management Journal, 38*(3), 487–505.
- Maries, A., & Singh, C. (2015). Stereotype threat? Effects of inquiring about test takers' gender on conceptual test performance in physics. In *AIP Conference Proceedings, 1697*(1), p. 120008. AIP Publishing LLC.
- Mayring, P. (2014). *Qualitative content analysis: Theoretical foundation, basic procedures and software solution*.
- Metzger, G. (2020). *KfW-Gründungsmonitor 2020*. KfW Bankengruppe. Retrieved from <https://www.kfw.de/PDF/Download-Center/Konzernthemen/Research/PDF-Dokumente/Gründungsmonitor/KfW-Gruendungsmonitor-2020.pdf>
- Miletzki, J., & Broten, N. (2017). Development as freedom. In *Development as freedom* (2nd ed.). Oxford University Press.
- Nooteboom, B. (2002). *Trust: Forms, foundations, functions, failures and figures*. Edward Elgar Publishing.
- North, D.C., & Institutions, I.C. (1990). *Economic performance*. New York.
- North, D.C. (1991). Institutions. *Journal of Economic Perspectives, 5*(1), 97–112.
- North, D.C. (1995). Structural changes of institutions and the process of transformation. *Prague Economic Papers, 4*(3), 229–234.
- North, D.C. (2010). *Understanding the process of economic change*. Princeton: Princeton University Press.
- Payne, B.K., Krosnick, J.A., Pasek, J., Lelkes, Y., Akhtar, O., & Tompson, T. (2010). Implicit and explicit prejudice in the 2008 American presidential election. *Journal of Experimental Social Psychology, 46*(2), 367–374.
- Pettigrew, T.F. (1958). Personality and sociocultural factors in intergroup attitudes: A cross national comparison. *Journal of Conflict Resolution, 2*(1), 29–42.

- Polishchuk, L. (2001). *Small business in Russia: Institutional environment*. Center for Institutional Reform and the Informal Sector (IRIS), University of Maryland.
- Prentice, D.A., & Carranza, E. (2003). Sustaining cultural beliefs in the face of their violation: The case of gender stereotypes. In *The psychological foundations of culture* (pp. 268–289). Psychology Press.
- Proshansky, H.M. (1966). The development of intergroup attitudes. In L.W. Hoffman, & M.L. Hoffman (Eds.), *Review of child development research* (pp. 311–371). New York: Russel Sage Foundation.
- Rainer, H., Albrecht, C., Bauernschuster, S., Fichtl, A., Hener, T., & Ragnitz, J. (2018). Deutschland 2017 - Studie zu den Einstellungen und Verhaltensweisen der Bürgerinnen und Bürger im vereinigten Deutschland. Leibnitz-Institut für Wirtschaftsforschung (ifo Institut).
- Ryan, M.K., Haslam, S.A., Hersby, M.D., Kulich, C., & Atkins, C. (2008). Opting out or pushed off the edge? The glass cliff and the precariousness of women's leadership positions. *Social and Personality Psychology Compass*, 2, 266–279.
- Sarfaraz, L., Faghih, N., & Majd, A.A. (2014). The relationship between women entrepreneurship and gender equality. *Journal of Global Entrepreneurship Research*, 4(1), 1–11.
- Schmader, T. (2002). Gender identification moderates stereotype threat effects on women's math performance. *Journal of Experimental Social Psychology*, 38(2), 194–201.
- Schmidt, D. (2002). 'Im Schatten der "großen Männer": Zur unterbelichteten Rolle der Unternehmerinnen in der deutschen Wirtschaftsgeschichte des 19. und 20. Jahrhunderts'. In F. Maier, & Fiedler (Eds.), *Gender matters: Feministische Analysen zur Wirtschafts- und Sozialpolitik* (pp. 211–29). Fhw-Forschung, 42/43, Berlin: Edition Sigma.
- Schumpeter, J.A. (1983). American institutions and economic progress. *Zeitschrift für die Gesamte Staatswissenschaft/Journal of Institutional and Theoretical Economics*, (2), 191–196.
- Schölin, T., Ohlsson, H., & Broomé, P. (2017). The role of regions for different forms of business organizations. *Entrepreneurship & Regional Development*, 29(3–4), 197–214.
- Smith, N., Smith, V., & Verner, M. (2006). Do women in top management affect firm performance? A panel study of 2,500 Danish firms. *International Journal of Productivity and Performance Management*.
- Spencer, S.J., Steele, C.M., & Quinn, D.M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, 35(1), 4–28.
- Statistisches Bundesamt. (2020). Bevölkerung, Erwerbstätige, Erwerbslose, Erwerbspersonen, Nichterwerbspersonen [jeweils im Alter von 15 bis unter 65 Jahren]: Deutschland, Jahre, Geschlecht. Bundesministerium des Inneren, für Bau und Heimat. Retrieved from <https://www.genesis.destatis.de/genesis/online?sequenz=tabelleErgebnis&selectionname=12211-0001#abreadcrumb>
- Statistisches Bundesamt. (2021a). Schulen – Absolventen/Abgänger nach Abschlussart und Geschlecht. Bundesministerium des Inneren, für Bau und Heimat. Retrieved from <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bildung-Forschung/Kultur/Schulen/Tabellen/liste-absolventen-abgaenger-abschlussart.html>
- Statistisches Bundesamt. (2021b). Bildung und Kultur – Schnellmeldungsergebnisse der Hochschulstatistik zu Studierenden und Studienanfängern/ -innen. Bundesministerium des Inneren, für Bau und Heimat. Retrieved from https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bildung-Forschung/Kultur/Hochschulen/Publikationen/Downloads-Hochschulen/schnellmeldung-ws-vorl_5213103218004.pdf?_blob=publicationFile
- Statistisches Bundesamt. (2021c). Studierende nach Semester, Nationalität, Geschlecht und Studienfach. Bundesministerium des Inneren, für Bau und Heimat. Retrieved from <https://www.genesis.destatis.de/genesis/online?sequenz=tabelleErgebnis&selectionname=21311-0003#abreadcrumb>
- Stephan, U., Uhlener, L.M., & Stride, C. (2015). Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations. *Journal of International Business Studies*, 46(3), 308–331.

- Sunny, C.E., Taasobshirazi, G., Clark, L., & Marchand, G. (2017). Stereotype threat and gender differences in chemistry. *Instructional Science*, 45(2), 157–175.
- Terrell, K., & Troilo, M. (2010). Values and female entrepreneurship. *International Journal of Gender and Entrepreneurship*.
- Tonoyan, V., Strohmeyer, R., Habib, M., & Perlitz, M. (2010). Corruption and entrepreneurship: How formal and informal institutions shape small firm behavior in transition and mature market economies. *Entrepreneurship Theory and Practice*, 34(5), 803–832.
- Turner, J.C., & Giles, H. (1981). Introduction. In J.C. Turner, & H. Giles (Eds.), *Intergroup behaviour* (pp. 1–32). Oxford, England: Blackwell.
- United Nations Development Program [UNDP]. (2020). *Tackling Social Norms. A game changer for gender inequalities*. Retrieved from http://hdr.undp.org/sites/default/files/hd_perspectives_gsni.pdf
- Wade-Benzoni, K.A., Hoffman, A.J., Thompson, L.L., Moore, D.A., Gillespie, J.J., & Bazerman, M.H. (2002). Barriers to resolution in ideologically based negotiations: The role of values and institutions. *Academy of Management Review*, 27(1), 41–57.
- Wajcman, J. (2013). *Managing like a man: Women and men in corporate management*. John Wiley & Sons.
- Warnecke, T. (2013). Entrepreneurship and gender: An institutional perspective. *Journal of Economic Issues*, 47(2), 455–464.
- Wenter, G., Aichinger, E., & Wagner, G. (2019). *Frauen und Führung*. Deloitte Consulting GmbH. Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/at/Documents/consulting/at-deloitte-umfrage-frauen-und-fuehrung-2019.pdf>
- Welter, F. (2004). The environment for female entrepreneurship in Germany. *Journal of Small Business and Enterprise Development*.
- Welter, F., & Smallbone, D. (2008). Women's entrepreneurship from an institutional perspective: The case of Uzbekistan. *International Entrepreneurship and Management Journal*, 4(4), 505–520.
- Welter, F., & Smallbone, D. (2014). Institutional perspectives on entrepreneurial behavior in challenging environments. *IEEE Engineering Management Review*, 2(42), 35–50.
- Williamson, O.E. (2000). The new institutional economics: Taking stock, looking ahead. *Journal of Economic Literature*, 38(3), 595–613.
- Westie, F.R. (1964). Race and ethnic relations. *Handbook of Modern Sociology*, pp. 576–618.
- Zhao, E.Y., & Yang, L. (2020). Women hold up half the sky? Informal institutions, entrepreneurial decisions, and gender gap in venture performance. *Entrepreneurship Theory and Practice*.