Female founders in the digital industry

Business formation and startups are the source of innovations that add products and processes to the market. They secure livelihoods, create jobs, and offer space for self-realisation and creativity. Startups in the digital industry also have a significant influence on digital transformation: apps are being developed, digital platforms are being set up, and social media agencies are being founded. Many women experience disadvantages as founders, though. This is due to structural inequalities, such as gender stereotypes or the double burden of women with families. For own-account workers, who are often women, there is also a lack of social protection.

Women interested in starting a business in the digital industry also face a strongly male-dominated business environment:
- In computer science and ICT professions, women are strongly underrepresented as entrepreneurs. For every 80,000 self-employed men, there are a mere 7,000 self-employed women, according to figures from the 2018 Microcensus.
- The stereotypical entrepreneur is thus male. He is attributed qualities such as assertiveness and a willingness to take risks. In the digital industry, social attributions regarding technology come into play as well.

At the same time, there are a number of innovative female founders who could serve as role models for women interested in starting a business. So far, however, these women are not particularly visible. Some examples include:
- Nora Baum, who developed an augmented reality app that allows amateur tailors to transfer their cutting patterns directly from their mobile phones to the respective fabric.
- Antonia Albert and her company, who provide everyday support to senior citizens and people in need of care via an online platform.
- Miriam Mertens, who founded a technology company in the education sector. This company offers an algorithm that customises further education and training programmes for companies and employees.

Female founders are strongly underrepresented in the digital industry. Stereotypical images of the “ideal founder” are reinforced by the strongly male-dominated environment in this industry. This leads to a situation in which it is more difficult for women to raise capital for their startup, for instance.
Do women approach business formation differently?

It is known from cross-sectoral studies on female founders that women start up their businesses differently than men:

» Female founders tend to focus their entrepreneurial goals more on social aspects and less on economic growth. The German Social Entrepreneurship Monitor assumes that half of the female founders fall into the category of social entrepreneurship, i.e. founding socially focused and socially motivated enterprises.

» Women often start small businesses or as own-account workers – thus with no social protection. The motivation for their business formation often stems from securing their own financial existence. This also occurs, for example, for reasons of reconciling work and family.

Whether these cross-sectoral differences also apply to female founders in the digital industry cannot be conclusively clarified at present. There is a lack of representative surveys of (potential) female founders in the sector. However, the above-mentioned specific examples of female founders in the digital industry suggest that they often do not correspond to the common image in this specific sector as well. For instance, women developing digital products appear to be more often motivated by solving a social problem, e.g. in the health or education sectors. These female founders often do not see themselves as being part of the technology industry, but rather of an economic branch in the social realm.

The startup as an emblematic symbol

Although not all business formations in the digital industry are necessarily startups, startups are seen as the emblematic symbol of business formation in the sector. Many startups are active in the technology sector and/or have a digital business model, e.g. platforms. However, startups have special features that distinguish them from “classic” business formation:

» The Bundesverband Deutsche Startups e. V. describes a startup as a young company that is (highly) innovative with its business model or technology. The goal is to grow quickly.

» Startups open up and develop new markets. They are thus exposed to a higher risk than business formations that enter an already established or known market. This also affects their (high) capital requirements and the form of financing (venture capital).

» In the venture capital-driven startup environment, innovation is typically understood in purely technical terms. Technology is seen as a neutral instrument. There is less focus on social innovations and socio-technical approaches which take structural and cultural contexts into account when it comes to the development of technology.

While there is a lack of surveys for the digital industry as a whole, the Bundesverband Deutsche Startups e. V. has been surveying female startup entrepreneurs in the digital industry environment every year since 2018. In the Female Founders Monitor, this data is analysed with regard to gender. The Monitor shows that women are strongly underrepresented as startup entrepreneurs and that they also find their businesses differently than men. For instance, they consider themselves to be explicitly part of the ICT sector in only a few cases, and they tend to start up smaller companies.

Startup formations in different industry sectors

[Diagram showing startup formations by gender and industry sector]

Source: Author’s research, data by the German Startup Federation / Bundesverband Deutsche Startups e. V. (2020): Female Founders Monitor 2020, Berlin.
Barriers and obstacles in startup funding and support

Focus on tech-oriented startups
Especially in the digital industry, innovation is often understood in purely technical terms. Companies that take a socio-technical approach to solving social problems by means of technology seem to be less often perceived as “real” startups. This leads to a situation where there is a lack of role models – not only for women, but for all people who want to found a startup with social issues in mind. It can be assumed that this also leads to a situation in which it is more difficult for startups which primarily aim at social impact and less at economic profit to acquire funding. Criteria such as social and/or environmental sustainability have so far rarely been taken into account by investors or in support/funding programmes. As a result, startups oriented towards the common good and welfare are excluded from funding pools, or they do not feel addressed by innovation competitions, for instance.

Gender stereotypes
The structures of the industry and the common image of a startup reinforce (gender) stereotypes about (potential) founders. Female founders often experience this as a barrier for their own startup activities. Such barriers arise, for example, when:
» interested women are advised in consultations to start “smaller” businesses for reconciliation reasons, or to start a business as a supplementary activity in order to first test their actual suitability as self-employed persons.
» The approved loan volume in negotiations between founders and bank advisors is lower because women are considered to be less competent in technical matters.
» Female founders are confronted with an all-male group of investors at events such as pitch days (where they canvass for investors), and such investors may fail to recognise good product ideas and/or those aimed specifically at women.
These disadvantages are reinforced by a strongly male-dominated investor landscape: a mere eight per cent of business angels in Europe, i.e. people who support the startup process with capital and know-how, are women.

Access to funding
Barriers created by stereotypes and a male-dominated environment are also reflected in the access to capital. Figures from the Female Founders Monitor 2019 show that:
» All-male founder teams are more likely to receive funding from private investors and are also clearly ahead in terms of government funding – at almost 36 per cent, compared to 21 per cent for all-female teams.
» Male teams raised an average of almost 3.4 million euros, while the figure for female teams was not even 200,000 euros.

The aforementioned figures also suggest that female founders are at a disadvantage when it comes to state or federal startup funding. With regard to gender-equitable access to state funding and the volume of funding, there is a range of unanswered questions:
» Are the conditions for funding designed in a way that female founders and male founders have equal access? The funding conditions can have an exclusionary effect if, for instance, founding is only possible on a full-time work basis or if special features of startups focusing on the common good are not taken into account.
» Are the funds allocated for startup promotion distributed in a gender-equitable manner? When it comes to the allocation of funding, gender-related data has not yet been systematically recorded. Therefore, a review has not been possible so far.
» Are committees and juries in the area of funding for digitalisation-related startups composed equally of female and male members? This is also not evident from public information, and there are no such measures as quotas to ensure parity.

Support instruments on German federal level
The website of the Federal Ministry for Economic Affairs (BMWi) lists all funding instruments provided by the federal government or with federal participation. Additionally, there is a large number of other independent funding and financing instruments offered by individual federal states as well as the European Union.
Recommendations for gender-equitable startup funding and support

To eliminate gender-based imbalances, the support of startups (in the digital industry) should be based on the following aspects:

» **Goal-oriented and evidence-based financing:** Public funding programmes must be designed with gender equality in mind. This requires first of all a systematic, gender-differentiated recording and evaluation of the funding allocation as well as publication of these evaluations. In addition, non-discriminatory and equality-oriented award criteria must be developed. These should also provide for quota regulations when it comes to the awarding of funding.

» **Integrating competences relevant to gender equality:** The expertise of female entrepreneur/founder networks and accelerators that support female founders in the early stages should be involved in the development of selection procedures. Experiences from gender-equitable and inclusive funding programmes should be gathered and staff of the funding programmes should be specifically trained in gender competences. Furthermore, decision-making bodies for public and private funding programmes should be composed in equal numbers of women and men.

» **Targeted support for women:** Funding programmes should be explicitly designed for female founders in the digital industry. Sector-specific networking of female founders is also important. Campaigns, events and networks within the sector increase the visibility of female founders and counteract gender stereotypes. The relevant private and public actors – such as startup centres, universities, and incubators – need to be involved.

» **Strengthening networks:** The development of female investor networks should be fostered. There are already networks that mobilise women as venture capitalists. These should be promoted and expanded. In addition, co-working spaces or similar arrangements should be promoted and further developed in a gender-responsive way, e.g. by including and incorporating childcare infrastructure.

» **Coordinated funding and support:** Programmes and organisations that specifically support female founders vary from one federal state to another and between the federal states and the German federal government. The federal government and the federal states should develop a coordinated funding/support strategy. This should ensure, among other things, that initiatives for the common good are systematically included in the design of the programmes.

» **Socio-technical perspectives:** In order to make the entire range of founders more visible, a socio-technical and sustainable concept of innovation should be developed and strengthened. This must take into account more than merely technology-centred business formations. An understanding of sustainability in the sense of the UN Sustainable Development Goals links economic, social and ecological values and includes equal capabilities regardless of gender.

**Further reading**

» Chapter B.I.3 in the Expert Opinion part of the Third Gender Equality Report of the German Federal Government, available (in German) at: https://www.bmfsfj.de/gleichstellungsbericht

