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### “GENDER” AND “STARTUP” IN SCIENTIFIC JOURNALS. A REVIEW OF INTERNATIONAL RESEARCH

The purpose of this article is to present the state of current research, focusing on two theoretical categories, “gender” and “startup”. The text is based on an analysis of the literature on the subject in scientific journals from 2014 to 2018, and it shows in which aspects gender is most often studied, and how startup contexts are differentiated by gender. In addition, the article presents the conclusions of empirical research, focusing on the social dimensions of innovative structures – such as startups – described by social researchers. The text outlines how and through what determinants startups are defined amongst foreign researchers.

Keywords: gender, startup, organizational structure, innovative structures, research review

## INTRODUCTION

The main purpose of this article is a qualitative meta-analysis of data collected in global empirical research in publications dealing with the two theoretical categories of “gender” (understood in terms of social practices and identities) and “startup”, focusing on the social aspects of influencing each other in these categories.

Gender as an analytical category was for many years treated as a peripheral sphere of sociological research. As Katarzyna Leszczyńska writes: “General sociology still often defines gender as an independent variable, not an explanatory one, treating it as a static and individual property of biologically given (not reproduced) entities, not constructed, separated on the basis of easily identifiable (anatomical) indicators” (Leszczyńska 2013: 100). However, nowadays gender is much more often the subject of reflective research, a self-contained category, against which attempts at deconstruction are made, and it is also considered the main principle structuring the organization (e.g. Acker 1990). So far, gender has been analyzed in many different organizational aspects. Today, it has most often become the subject of research on organizations of religious (see Kimmel 2015), political (see Connell 1987; Kimmel 2015), or educational

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(Kimmel 2015) character, but also, particularly important from the perspective of this article, business/entrepreneurial (see Chaganti and Parasuraman 1997; Chell and Baines 2006; Herring 2009; Fairlie and Robb 2009; Badal and Harter et al. 2013). It is worth noting, however, that the fields of organizational activities, or social contexts, are characterized by a defined and usually stable organizational structure that has been shaped over many years. Such formalized organizations, having developed mechanisms of action, create structures with the potential to create practices and social activities (Bourdieu 2001; Giddens 2003). Continuity in the production and reproduction of existing organizational structures allows for their specialization, specification, and development of patterns of operation and social practices. For many years gender studies have looked at the subject of their research within these structures. This resulted in descriptions of numerous social phenomena, effects or mechanisms, in particular referring to the entrepreneurial/business spheres, such as “gender pay gap”, “gender queue” (Reskin and Roos 1990), “glass ceiling” (Connell 2006), “glass escalator” (Williams 1992: 253–267), vertical and horizontal stratification/inequalities (Charles 2003), and many more. Following the trail of Acker, who claimed that organizations are gendered, it is worth asking, what will happen to “gender” when we decide to study this category in the context of business organizations considered innovative or focused on generating innovation?

One example of business organizations focused on producing innovative solutions is the “startup” company (Christensen 1997; Kulej 2018).

Reaching into the Oxford English Dictionary, we learn that for the first time the word “startup” was used in the context of “the business of investing in startups in the electronic data processing field” in the biweekly *Forbes* in 1976 (Simpson and Weiner 1989). The debate about what startups are is mainly heard among entrepreneurs, practitioners, and investors, and much less often among academic theorists. There is no legal definition of “startup” in Poland. In the reports of the Startup Polska Foundation on the nationwide condition of startups, issued since 2015, we can find a definition in which they are understood as “projects that have the potential for very rapid growth: thanks to a technological advantage or a market niche, that has not yet been discovered and developed. Startups are companies designed to achieve a huge scale in a short time” (Beauchamp, Kowalczyk and Skala 2017).

In the scientific literature we can also find the two most frequently mentioned definitions of startup, one by S. Blank and B. Dorf, and the other by E. Ries. According to Blank and Dorf, a “start-up is a temporary organization dealing with the search for a scalable, repeatable and profitable business model” (Blank and Dorf 2013: 19). According to Ries, a startup is a “human institution created with a view to building new products or services in conditions of extreme uncertainty. [...] A start-up is more than just the sum of its elements – **it is a truly human project**” (Ries 2012: 28–29, bold – E.T.). In turn, Szymon Wierciński claims that the startup is a “stage”; in his opinion the startup ceases to be a startup when the board or founders begin to pay themselves “satisfactory remuneration” for at least 3 months in a row. Among all the definitions, only this by Ries, however briefly, takes into account the social dimension of startups. Defining this concept among Polish researchers and representatives of social sciences is not a common practice, which may come as a surprise because, as Agnieszka Kulej writes in her article “Attributes of start-ups as entities of an innovative character”, “the essence of innovation of start-ups is primarily competences of individual

units creating such entities. Therefore, experts see this innovation in human capital, which in their opinion is the foundation of a start-up“ (Kulej 2018). Bearing in mind the previous considerations, I define a startup as an example of an organization focused on generating innovative solutions (in its own sector), but also an example of an organizational **structure constructing in an innovative way** (because it is in the process of crystallizing and forming its own structures, in a situation of non-standard methods of obtaining/completing financial and social capital).

In summary, this article will be based on the two main categories of “gender” and “startup”, while attempting to reveal the most important relationships and research tropes, based on the results of empirical research demonstrated by scientists dealing with these two theoretical concepts and published in international English-language scientific journals. I will present how the category of “gender” is understood in research focusing on startup environments, as well as in which areas of activity and experience are diverse (by gender). Moreover, in the article I will draw attention to the way in which startups are defined and described by researchers, focusing on the social dimensions of innovation. The text will also contain the most recent findings regarding the role of gender in startup environments.

## METHODOLOGY

The methodology used in the literature review was inspired by the method of systematic review of research (Mazur and Orłowska 2018; Booth, Papaioannou and Sutton 2012; Czakon 2011). In the initial phase, I identified four research questions, which I will answer later in the article:

- (1) How is the term “startup” defined in scientific articles (in gender and startup research)?
- (2) How is the concept of gender understood in scientific research articles along with startups?
- (3) What are the research problems about in gender and startup research, and what do they relate to?
- (4) What are the conclusions of empirical research on gender and startups?

All the publications came from electronic databases (Google Scholar, Science Direct). The initial search consisted of 2 stages. (1) **Analysis of the contents in the titles of the articles, and key words**: The list of all available positions was generated by using two key words: “gender & startup”, “women & startup” “men & startup”, “female & startup”, “male & startup”. In this way the search generated a total of 143 positions. (2) **Analysing content in the abstract** – The second stage involved qualitative abstract analysis. At this stage, I interpreted the meaning of the word “startup”. Bearing in mind the research questions (No. 1), I took into account only those publications in which the word “startup” was used as a form of organization of the enterprise (e.g., I excluded articles where the term “start up” was used as a verb).

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<sup>1</sup> In all versions: “startup”, “startups”, “start-up”, “start-ups”.

Then I excluded elements duplicated by search engines from the article pool, but also public reports (published by state agencies, business, non-governmental institutions, etc.), conference reports, books, book chapters, texts offering theoretical frameworks, master's theses, and other research reviews.

Then I obtained **free full versions** of publications available on the web (e.g. via the websites ResearchGate, Google Scholar and ScienceDirect).

The analysis was also abstracted from articles published in magazines such as *Theory, Practice & Criticism*, *Journal of Business Research*, *International Journal of Gender and Entrepreneurship*, *International Journal of Entrepreneurship*, *European Journal of Development Research*, and others. The analysis covered 14 texts published from 2014 to 2018, whose complete bibliographic description can be found at the end of the article.

I would like to briefly characterize the specificity of the texts which I have analyzed for the purposes of this article. Among 14 analyzed articles which focus on gender and startups, as many as eight use quantitative research methodology. Researchers following this trail often use previously collected data based on certain questions, create indexes, and correlate the variables they select. Very often in research on innovations and gender researchers used general databases (e.g. OECD), reports (e.g. PISA) or indexes (e.g. WMEIndex, WSEIndex). Three research teams used triangulation of quantitative and qualitative methods, and three studies were conducted using only qualitative methodology.

With such a heterogeneous study set, meta-analysis is excluded (which is mainly used to analyze the results of quantitative studies). Therefore, to analyze the collected articles, I used **narrative synthesis of data** (Mazur and Orłowska 2018).

Narrative synthesis of data allowed organizing data into logical analytical categories and analysis of the subject of research (startups) in terms of extracted categories. It allowed for the final synthesis of the results of all empirical research included in the review and indicated areas for further scientific exploration.

## THE SPECIFICS OF INTERNATIONAL RESEARCH ON GENDER AND INNOVATION ORGANIZATIONS AND ORGANIZATIONS FOCUSED ON INNOVATION STARTUPS: CONCLUSIONS FROM RESEARCH

The rest of the publication will be organized as follows. Sections 3.1, 3.2, 3.3. provide the answers to research questions 3 and 4. The conclusions contained in the analyzed articles, because they are organized into three main thematic areas, extract the most frequently discussed issues in gender and startup research, while juxtaposing the results of various studies. Chapter 4 presents the results of the analysis of the definition of “startups” appearing in these publications. Reflections on the understanding of the concept of “gender” in scientific publications are contained in chapter 5. The last element is the “Summary”, with a general summary of the threads discussed so far, as well as an indication of further valuable areas and ways of exploration in gender and startup studies.

GENDER AS A CATEGORY THAT DIFFERENTIATES  
GENERATION OF ECONOMIC CAPITAL (PROFITS, BENEFITS, AND RISKS) IN STARTUPS

In research on the growth factors of new ventures, financial resources are one of the main predictors of the outlook for growth and success (Cooper, Gimeno-Gascon, & Woo, 1994). Therefore, it is not surprising that financial aspects are among the most often studied threads when researching gender and startups. As we can see in the article by Dana Kanze, Laura Huang and Mark A. Conley: “Female-founded firms constitute nearly 40% of all privately held companies in the United States (Amex 2016), yet only 2% of U.S. venture capital financing is allocated to female founders” (as cited in: Kanze, Huang and Conley 2018: 586). The reasons for the disproportions emerging in financing the entrepreneurship of women and men are seen by some in the tendencies of investors who either consciously or not favor masculine business activity, or they see reasons for lower financing of women’s business activities as due to the lower expectations and needs of women running their own business (Brooks, Huang, Kearney and Murray 2014; Coleman and Robb 2009). However, Kanze, Huang and Conley’s research results settle this dispute: using triangulation of qualitative and quantitative methods [...] they tested the hypotheses posed in the text and prove that in reality women-led startups have a higher mean need for capital (M5.86) than men-led startups (M5.75) in the sample (Kanze, Huang and Conley 2018: 596). Moreover, the results of the study show that at Tech Crunch Disrupt Startup Battlefield, an international competition for startups, women receive questions aimed at prevention much more often than men do. On the other hand, questions regarding promotion are often directed towards men. As the authors of the analysis state: “This downstream induction aggravates the gender gap by prompting female respondents to position their startups as »playing not to lose« and male respondents to position themselves as »playing to win«. In turn, that positioning influences investor opinions, perpetuating the perception that women lack the appetite for growth.” (Kanze, Huang and Conley 2018: 603). The effect of this state of affairs is that women are implicitly obliged to “make sure they can execute a safe return of capital”, in turn, the task of men is to prove that their enterprise has a chance of growth (Kanze, Huang and Conley 2018: 603). What is particularly important, in the case of venture capital investments, there is a high risk of failure, so investors must rely on indications that maximize the likelihood of reimbursement. In order to achieve the intended goal, the assessment focuses on assessing risk factors such as (1) unqualified management, (2) qualified but inexperienced management, (3) expected low profitability of the project (4) high risk from competition and lower profits (MacMillan, Zemann and Subbanarasimha 1987: 124). Because hidden prejudices characterize both men and women investors, the statistical presence of women investors does not guarantee greater sensitivity and therefore support in these matters, which indirectly maintains differences in financing startups. Such a context of the financing process makes the tendentious questions asked to entrepreneurs determine the representation of their business plans, thus lowering the chances of women’s startups to achieve success (Kanze, Huang and Conley 2018: 607).

In turn, other studies found that “gender diversity reduces the debt ratio and the cost of the debt and increases the debt maturity. So, women can improve the financial situation and the firm’s stability in a crisis context. In this way, to promote women to top management

positions of a firm is not only appropriate for ethical reasons but also for effectiveness” (Hernandez-Nicolas, Martín-Ugedo and Mínguez-Vera 2015: 102). Comparing the results of the above-mentioned studies, it can be assumed that the assurance and preventive behavior of female-entrepreneurs (risk aversion, lower level of indebtedness of their enterprises, etc.) are conditioned by numerous interactions during which “protective” and modeling behavior is modeled as “playing not to lose”.

Research conducted by Loren Henderson, Cedric Herring, Derrick H. Horton and Melvin Thomas is in line with the described tendencies, as it analyzes the credit score results of enterprises depending on the race and sex of entrepreneurs. As shown by the results of the analysis, Asian and white owners of startup companies achieve higher than average credit score results, while startups with African American and Latin owners get lower credit scores. Researchers showed that startups belonging to women have a significantly lower credit score than new companies owned by men (Henderson et al. 2015: 477), despite the fact that in the previously mentioned studies Kanze, Huang and Conley show that the financial needs of new enterprises run by women are higher than the needs of those run by men. What is particularly worth noting in the studies described is their intersectional approach to the factors differentiating entrepreneurs’ access to credit financial resources.

Interestingly, in a 2018 study, a comparative analysis of startups run by males and females shows that female companies are not less profitable than male companies; they also achieved better results in terms of employee income as well as capital turnover, and the author of the study points out that although female startups have fewer liabilities and less equity than male startups (in accordance with results from other analyzed articles), at the same time female startups “exhibit effective financial management in terms of liquidity management in general” (Demartini 2018: 70).

Although as research shows (Henderson et al.) various categories may overlap (gender, race, age) and intensify discriminatory effects in the entrepreneurial sectors on the international stage; on the other hand, research by Suman Naredla and D. Ramesh Babu, conducted in India, shows that on the microstructure level, gender discrimination can also be a source of benefit. The social system identifying the roles of men with the role of “breadwinner” (in patriarchal cultures such as India), is interpreted by women as a phenomenon from which they can derive measurable benefits, where the sense of financial security for which responsibility rests with men gives space for risk-taking by female entrepreneurs: “two sisters have a very positive attitude – they view that as women don’t need to be the primary income earners, they are free to take risk. So, they view it as an advantage for women” (Naredla and Babu 2018: 313).

The above results should be supplemented with other research results, taking into account the consequences of functioning in a cultural context, where femininity is not directly identified with business achievements or a career. Researchers such as Michael A. Johnson, Regan M. Stevenson, and Chaim R. Letwin have found a way to finance female entrepreneurship, in which gender stereotypes are conducive to raising funds for women’s business. The method is to apply for financing directly to individuals or entire communities that support certain undertakings with their donations. Research shows that in crowdfunding “individual funders stereotype men and women idiosyncratically, and these perceptual stereotypes, in turn, uniquely influence funder willingness to fund. Our results show that funders perceive

female entrepreneurs as more trustworthy than male entrepreneurs and that these judgments are strong enough to facilitate overall willingness to provide finance.” (Johnson, Stevenson and Letwin 2018: 826). It turns out that when investors have little information at their disposal on projects at an early-stage venture, credibility is a much more important feature of the entrepreneur than their competence. Furthermore, the researchers did not find an aspect in which men could benefit from the increased level of latent bias. Although in other financing options men are rated as having a higher level of competence (than women), in the case of crowdfunding there is no such relationship. The authors of the text consider whether, due to the access of male entrepreneurs to a greater number of sources of financing of various types, investors assess their use of crowdfunding as an attempt by less competent people who, for unknown reasons, have not found success in other financing paths (Johnson, Stevenson and Letwin 2018: 827). Although, as one can see, the entrepreneurial activity of women is not financially rewarded in startup environments, there are options, such as crowdfunding, that increase the chances of success in raising capital.

#### GENDER AS A CATEGORY THAT DIFFERENTIATES THE NEEDS OF ENTREPRENEURS AND ENVIRONMENT CONDUCTIVE TO THE CO-CREATION OF STARTUPS

Research shows that gender as a theoretical and practical category is able to differentiate the stimulation of startup ecosystems. Elisabeth S.C. Berger and Andreas Kuckertz describe what combination of features present in the micro-, meso- and macro-structural dimensions favors the startup activity of both sexes. For this purpose, they analyzed the 20 best ecosystems of technology startups around the world, from 12 different countries. The authors, based on quantitative analysis of existing data, identified certain configurations of factors, and discovered the existence of two models of ecosystems that stimulate startup activity of women:

**Model I: Absence of a positive perceiving local government, high performance or market reach for startups**, high levels of gender equality (Tel Aviv).

**Model II: Absence of a positive perceiving local government, high performance or market reach for startups**, along with high levels of funding and of access to management (Silicon Valley, Singapore) (Berger and Kuckertz 2016: 5166).

What constitutes the specifics of male startup ecosystems is positive perception by local government and high levels of management access, in terms of talent or startup experience, but these configurations are only 35% of the phenomenon of a high proportion of male founders (Berger and Kuckertz 2016: 5166). Among all the publications related to gender and startups that I analyzed Berger and Kuckertz, Demartini, as well as Kanze, Huang and Conley are among the few researchers who distinguish the group of male entrepreneurs as a separate category of analysis which is also subject to examination. Male entrepreneurs have not been shown as a background for ongoing research (as in Naredla and Babu), but have been presented as an equivalent analytical category.

Considering the factors supporting female entrepreneurship, an important element at the level of microstructures is the family, the importance of which has been demonstrated by many

researchers (see Aldrich and Cliff 2003; Baron 2002; DeMartino and Barbato 2003; Jennings and McDougald 2007). Dianne H.B. Welsh, Eugene Kaciak, and Narongsak Thongpapanl, considering the five-stage theory of economic development of M.E. Porter, describe the level of involvement and family support in the development of startups. Their research shows the existence of a general trend: “the need for family support decreases with an increase in economic development” (Welsh et al. 2016: 6). However, there is a certain moment that arises, during the transition through successive stages of economic development, when family support increases. This is the stage when women, due to unfavorable external conditions, look for help from their families, and it occurs between the “efficiency” and the “innovation-driven” stages. This is caused by turbulence that arises in the changing institutional environment. At the “factors-driven” stage, in order for a woman to be successful in business, instrumental support of the family is necessary. In countries with a low GCI index, women entrepreneurs expect a high level of family support (organizational and financial). At the time when the country begins to move to stages focused on efficiency, and then on innovations, state support policies improve, allowing female entrepreneurs to be less dependent on family support (Welsh et al. 2016: 5–6). To sum up the reporting of research results, it is worth adding: “Women entrepreneurs in innovation-driven economies need the least family instrumental support and have the lowest perception of gender discrimination regarding financing.” (Welsh, Kaciak and Thongpapanl 2016: 6). Despite the fact that the authors of the study claim that: “During the transition between the factor-driven and the efficiency-driven stage, the likelihood of the family moral support increases” (Welsh et al. 2016: 4).

Research conducted in Saudi Arabia (currently in this transition phase), seems to confirm the predictions of Welsh and others: “The families and husbands are more cooperative and Saudi society is generally more accepting of women in business. However, a lack of business development and related support from the spouse continues to be evident” (Khan 2017: 23). M. Khan’s research shows that at this stage of the development of the startup ecosystem, women declare the need for institutional support, e.g. “child education support”, “mentoring of the entrepreneur” and “transportation facilities” (Khan 2017: 8). Women with their own startups agree that they need support in the form of soft skills incubators, training institutes, mentors and trainers, and most importantly – much clearer legal regulations: “Start-ups also have shown a need for government to publicize the laws and procedures and systems more” (Khan 2017: 12).

The research of Welsh et al. shares an example of research on gender and startups where it crosses the levels of macro- (stages of economic development) and micro-structures (family support, personal problems). Studies at the meso-structure level include research conducted by Sangurah R.M. Robert and Ruth Tubey in Western Kenya.

In this case, analyzing the startup environment, the impact of promotional efforts of niche policies on female entrepreneurs’ MSE start-up rates was assessed. Research shows that only 24% of new start-ups were assigned to niche promotional activities. Furthermore, only 8% of motives for setting up a new MSE startup were dictated by the impact of niche promotional efforts in the country (Sangurah and Tubey 2017: 45–46). These studies show that the promotional activities themselves contribute little to the development of women’s startups. This is in line with other findings, which show that along with campaigns promoting

the activity of women in entrepreneurship, they must be coordinated not only with real assistance from the state and state institutions, but also with support from family, friends and the private environment.

#### GENDER AS A CATEGORY DIFFERENTIATING STRATEGIES AND IDEAS IN BUILDING A STARTUP ORGANIZATION

A part of this article is devoted to how gender differentiates tactics and ideas guiding the creation of startup enterprises. I would like to start with the general characteristics describing the specificity of businesses run by women. The results of the research come from an Italian context.

Research on the specifics of micro-enterprises run by women usually show that motivations for starting a business are closely related to experiences in personal, family or emotional life, and their own company is often treated as an expression of themselves (Paolini and Dumay 2017: 283).

A good example confirming the conclusions from the Paolini and Dumay research concerning the women’s motivation behind the decision to start running a startup is a story from Canada: “The startup’s original story began with three women who had worked in legacy and startup journalism organizations in Canada, and/or the nonprofit sector, deciding to collaborate to create in-depth journalism” (Young and Callison 2017: 9). This startup owes its innovativeness to the approach of the mission, which already makes the company stand out from the background of the industry context, and moreover: “commitment to methodological innovation that included locating themselves more closely within communities, using a language of collaboration and focusing on data journalism” (Young and Callison 2017: 10) allowed them to introduce a completely new quality to data appearing in the news.

The juxtaposition of research from distant cultural contexts shows that the motives accompanying the creation of startups are not identical or independent of cultural or historical context: “Prior studies have asserted that in general women join the workforce out of the need for achievement and desire for respect. However, in Saudi Arabia, in addition to independence and recognition, we also witnessed the economic reasons (push factors) to start a business” (Khan 2017: 23).

A comparative analysis of research results shows that gender as an independent variable that differentiates the experience of women and men is therefore set in historical, social and cultural contexts, and although it is true that it differentiates the experience of female entrepreneurs, they are rarely similar to each other.

In Paolini and Dumay’s research, the management model applied by women is participatory, allowing the company owner to learn from relationships and build a social network that functions as a support system for the enterprise and the entrepreneur. Despite the democratic style of company management, the decision-making process is rarely shared. Consultations regarding important decisions are informal and are conducted with people who can make an emotional or professional contribution. As the authors write: “Decisions are left to the intuition of the micro-entrepreneur and her sixth sense; they are rarely supported by any study or research data” (Paolini and Dumay 2015: 184). It is worth noting, however, that the use of

such a management model is difficult in countries where women's mobility is limited and their dependence on the family or husband is greater.<sup>2</sup> Female entrepreneurs from Italy rarely use official support routes, such as associations present in industry.

This seems to be particularly important and is confirmed in a remote Indian startup environment<sup>3</sup>: “none of the female-run enterprises carried out a market study or demand analysis for the product or service offered. However, these are all small businesses, the products and services of which are capable of carving out a niche in the market” (Paolini and Dumay 2015: 185). And the analyzed Italian women-led companies do not plan to expand on the market (Paolini and Dumay 2015: 183–189). Contrary to the results of Paolini and Dumay, the studies of K. Kuschel and Maria T. Lepeley show that “copreneurial teams in technology are growth-oriented, and that their growth expectations take different forms.” (Kuschel and Lepeley 2016: 192). Perhaps the results obtained differ from each other due to the different specifics of the sample (startup owners: women vs. women with partner) or the size of the research sample, or the economic context (in underdeveloped economies, factors prompting women to take up gainful activity, economic motives, appear more often (see Khan 2017)).

Thanks to current research, in addition to understanding what motives accompany startups, we can also learn from Stern Neill, Lynn Metcalf and Jonathan L. York what characterizes the way of thinking for women whose startups are currently in the growth phase (which means it is effective). Using the triangulation of quantitative and qualitative methods, the authors indicate the discovery of thinking of women who are successful in the startup ecosystem. It is distinguished by four features that can also be formulated in the form of advice:

1. “Observe the world and how people interact in it. They pay attention to everyday experiences to find new ideas or better ways of doing things. For example, they watch how customers use products and services and then develop new or better solutions on the basis of those observations.
2. Question the status quo and other people's assumptions. Through questioning, overlooked connections are revealed and unknowns are discovered
3. Experiment with ideas to develop insight and experience new things. Learn by doing is a way of understanding how things work, testing suppositions, and exposing new ideas that lead to discovery.
4. Network with associates and maintaining a web of individuals outside the entrepreneur's industry and profession. Entrepreneurs with a strong discover mindset tend to seek exposure to a broad spectrum of ideas and people” (Neill, Metcalf and York 2015: 16).

Neill, Metcalf and York's research focuses exclusively on the feminine way of thinking about a successful business. Therefore, on the basis of these studies, we can not unequivocally state whether the above-mentioned four characteristics of thinking are reserved exclusively for women. Perhaps they equally include men with their own startups? When analyzing female

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<sup>2</sup> “Mobility is a problem faced by women. Particularly with increasing crimes against women, the ability of women to meet and network is severely restricted” (Naredla and Babu 2018); “Household responsibilities and marital status like obtaining permission from their husbands to travel out of town for training or trade fairs are a real constraint to them” (Sangurah and Tubey 2017: 42).

<sup>3</sup> “The entrepreneurs found difficulties in finding the right mentors in India. The mentors don't provide business insights. For instance, in the beginning they were developing new products without marketing. Neither the entrepreneurs nor the mentors were not able to recognize the problem at that time” (Naredla and Babu 2018: 313).

entrepreneurs as a separate group, it is worth paying attention to what Acker says: very often, the story about the organization’s employees is really a story about culturally conceived masculinity (Acker 1990: 149–150).

## DIFFERENT WAYS TO DEFINE A “STARTUP” IN RESEARCH ON “GENDER” AND “STARTUPS”

The “startups” themselves as an example of an innovative form of organization of business structures are relatively rarely the subject of scientific studies, especially in Polish sociology. Analysis of ways of understanding the concept “Startup” in research on “gender” and “startups”, whose results are published in scientific journals, showed that most often it is operationalized as:

1. The early stage of the company’s development, a certain stage, the transitional phase of the company (of unspecified duration) (e.g. Paolini and Dumay 2015).
2. A company with a low share of its own capital, in need of financial support, a company seeking external financing sources for its operations (e.g. Kanze, Huang and Conley 2018).
3. An enterprise with a specific operating time in the economic market (e.g. Dai, Byun and Ding 2018: 19).
4. A company whose offer, product, service is innovative against the background of the industry (usually advanced technology). A startup can then stand out thanks to the idea, or the mission, that is carried out through business activities (e.g. Young and Callison 2017).
5. A company of a specific nature which has been formalized and is contained in state legal acts (Demartini 2018).

In the texts analyzed we can find five ways to define startups, but it is worth noting that in none of the discussed cases is the term “startup” defined by long deliberations or research into literature on the subject. Researchers dealing with this phenomenon rarely create their own definitions; they usually reach for someone else’s studies, external indicators, ready indexes, or databases in defining what can be considered a “startup”. Sociology has been dealing with the impact of social systems and structures on human behavior for years, but none of the analyzed texts interpret a startup as a structure that would have specific social consequences by the way the company is organized and/or influences organizational culture.

## GENDER AS A THEORETICAL CATEGORY IN GENDER AND STARTUP RESEARCH

An overview of research into gender and startups (paying attention to social aspects) has allowed me to notice interesting trends appearing in empirical research, the effects of which have been published in recent years. First of all, when social research situates itself in the field of gender studies, it focuses mainly on the analysis of the situation of women entrepreneurs; women’s and men’s actions are definitely less frequently compared in this

area. What is particularly interesting, none of the articles focused solely on the issue of masculinity in the area of startup and gender. Masculinity here is a background, a context in which women's cases are distinguished. In the articles I analyzed, femininity and masculinity appear as categories resembling a monolithic construct, without complexity or internal complications. Gender is understood essentially as an independent variable located on the nominal scale. These studies rarely tend towards intersectionally analyzing gender categories with other variables such as age, class or ethnicity. In such studies, gender is identified with biological sex, which generates invisible assumptions, e.g. that every woman working in the enterprise will implement the cultural model of femininity. And yet, for example, women in managerial positions may have a culturally masculine management style, without introducing any qualitative gender difference to the company.

Secondly, empirical research that includes gender dynamics or gender as a phenomenon that is worth exploring in itself is currently underdeveloped. One of the few examples from research on innovation and gender is that of Lara Pecis, where gender is understood as a practice and “femininities and masculinities are not aligned in a binary and oppositional order; rather, their practising is multiple and non-dichotomous” (Pecis 2016: 2119).

Thirdly, gender as a category differentiates the experience of men and women in a startup environment, but it should be remembered that in addition to the specific economic context, as a practical category it is also embedded in a specific social, cultural or historical context.

Finally, I would like to point out that in recent years, the terms “gender diversity” and “gender mainstreaming” have become more and more popular. They are gaining importance not only in the entrepreneurial or scientific discourse but also in political discourse. In the Amsterdam Treaty, which is a binding document for all European Union countries, we find a provision on “seeking to eliminate inequalities and promoting equality between men and women.” (see Treaty: 19) and ensuring “the application of the principle of equal pay for male and female workers for the same work or work of the same value” (see Treaty: 31). In the following years, the European Commission undertook a number of initiatives for gender equality (“Strategy for equality between women and men 2010–2015”, “Handbook on mainstreaming gender equality policies”, and others). Despite the growing interest in these topics and their significant impact on social life, none of the articles analyzed focused on the effects of applying gender mainstreaming/gender diversity in startup companies. Numerous studies confirming the effectiveness and benefits of implementing such policies in the company's life most often argue for the choice of topic and described the theoretical background of research conducted by the authors of the articles. “Gender diversity” or “gender mainstreaming” policies were not analyzed as a type of practice implemented in startup environments, nor were they subject to critical, systematic scientific evaluation (in publications from 2014–2018).

## SUMMARY

Analysis of articles published from 2014 to 2018 in scientific journals that focused on the categories of “gender” and “startup” showed that the most common research topics in this area are issues related to (1) factors supporting or stimulating the development of startups run by women, as well as the specificity of the startup environment, (2) finances, or benefits

from and for entrepreneurial activity, and(3) motives and idea accompanying the building of startup companies.

Analysis of publications shows that the topic of gender and startups in scientific journals has been extremely rarely addressed by researchers in recent years. Nowadays, much more research in the fields of innovation is focused on researching the STEM, ICT, R&D and high technology sectors, as those in which technological innovations are produced, than startups as innovative organizations in their structure.

Research on gender and startups is mostly carried out along the path of quantitative methodology. This allows for making comparisons between economies of different countries. Furthermore, in recent years, no international comparative qualitative studies have been carried out in this area. Although social researchers deal with the impact of gender diversity on innovation, none of the research concerned the impact of innovation on the construction and dissemination of new gender patterns. The above findings show that this area, from the perspective of social sciences, is an interesting field for further exploration and research. Finally, I would like to recall a quote from one of the articles analyzed, which highlights the importance of socio-cultural factors in the development of startup ecosystems:

I am always politically incorrect. When I assess a team, regardless of whether it is a man or woman, I will ask them: Does your wife, or husband, know that you are doing this? How long do you have left until you run out of cash? Are you making enough money to pay the bills? Does your wife, or husband, work; do you have healthy kids, is everyone all right? [...] The most important thing is that the family is also moving on the right track, that there is enough money to live the first 6 to 12 months, that your husband or wife knows what you are getting yourself into, and that there aren't any emotional problems going on in the background. The risk that we take as investors is extremely high. That is why when you are looking at an entrepreneur; you're not concerned by whether they are male or female. Your concern is whether s/he is capable of achieving what she or he has planned ahead, if s/he has the required traits, if that person is willing to suffer, fight, and change whatever needs to be changed, and be on the road 360 days a year. To raise the value of a company to millions of dollars, which is what's expected in a venture capital investment, is something extremely hard to achieve (Female investor (40) (Kuschel and Lepeley 2016: 191).

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#### „GENDER” I „STARTUP” W CZASOPISMACH NAUKOWYCH. PRZEGLĄD BADAŃ MIĘDZYNARODOWYCH

Celem artykułu jest przedstawienie stanu aktualnych badań koncentrujących się w swojej tematyce na dwóch kategoriach analitycznych: gender i startup. Tekst opiera się na systematycznej analizie literatury przedmiotu oraz artykułów opublikowanych między 2014 a 2018 rokiem na łamach czasopism naukowych. Pokazuje, które obszary powiązane z kategorią „gender” są najczęściej badane, a także w jaki sposób różnicuje ona kontekst startupowy. Ponadto w artykule przedstawiono wnioski płynące z badań empirycznych, traktujących o społecznych aspektach struktur innowacyjnych – takich jak startupy – opisywanych przez badaczy społecznych. Tekst przedstawia także, w jaki sposób i za pomocą jakich determinant definiuje się startupy wśród badaczy zagranicznych.

Słowa kluczowe: gender, startup, struktura organizacyjna, innowacyjne struktury, przegląd badań