Information support in the assessment of female students as potential entrepreneurs

Paulina Siemieniak1, and Jakub Pawlak1,*

1Poznań University of Technology, Faculty of Engineering Management, ul. Strzelecka 11, 60-965 Poznań, Poland

Abstract. On world’s average, every third business is run by a woman. Typically, these businesses are small and limit their growth, they rarely employ staff, have shorter survival rates, lower level of capitalization, and are financed with foreign capital to a lesser extent in comparison with businesses run by men. In addition, women are motivated to start their own business due to the phenomenon of a “glass ceiling”, problems finding a job after returning from parental leave, and the need to balance work and parental duties. Running their own business opens up many opportunities for women. It seems, therefore, appropriate to examine the factors that will help the next generation of women realize their entrepreneurial potential. The article presents the opinions of management students on the usefulness of different measures in supporting the initiation and conduct of business in the SME sector. The results were compared with assessments made by female entrepreneurs. This helped identify areas in which the expectations of students differed significantly from the reality. The authors of this article believe that such a discrepancy between the ideas and the realities of running your own business may be the cause of the lower survival rate of businesses run by women and their limited participation in the overall number of entrepreneurs. Based on these results, the authors propose directions for the education of potential female entrepreneurs.

1 Introduction

The experience of modern market economy shows that small and medium-sized enterprises play a significant role in the development of both regions and countries. Carrying on one’s own business is a factor in improving the situation on the labour market, for example through reduction of unemployment. According to the literature on the subject, entrepreneurial determinants include both the personal resources represented by the entrepreneur as well as environmental factors, which tend to be specific to a certain geographic area. As regards entrepreneurs themselves, they include psychological traits, knowledge, skills, and experience. In the case of women’s entrepreneurship, particularly significant is the impact of their socio-cultural environment, for example the level of social approval for self-employed women. Entrepreneurial determinants in the economic environment, on the other hand, are those factors which, among other things, fulfil an

* Corresponding author: jakub.pawlak@put.poznan.pl

© The Authors, published by EDP Sciences. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (http://creativecommons.org/licenses/by/4.0/).
Informational function, such as the local government, funding agencies, research institutions, business incubators or consulting companies.

The situation of women in the labour market is special because of the need to reconcile professional activity with the exercise of their familial role. One of the forms of employment characterized by higher flexibility is setting up and running one’s own business. Although the share of self-employed women in Poland is relatively large compared to the rest of Europe, it still does not match that of self-employed men. Many studies point to the existence of numerous restrictions on women’s entrepreneurship and the coexistence of its relatively high potential. Developing and utilizing existing capabilities is not only a solution to unemployment, but also enables self-fulfilment of individuals and economic development of the region [1].

Understanding the specific nature of women’s entrepreneurship seems to be particularly important due to the fact that the number of women starting their own business has continued to grow in recent decades. Therefore, this trend can be expected not to reverse. However, because female-owned companies are generally smaller and encounter more trouble surviving on the market, the increase in their number may result in the increasingly common problems faced by SMEs [2]. Therefore, this article focuses on one of the factors that support women’s entrepreneurship, which is gathering information on starting and running one’s own business.

2 The essence of the concept of ‘entrepreneurship’

Many definitions of entrepreneurship found in the literature on the subject characterize it as a broad, multi-dimensional, interdisciplinary phenomenon.

Entrepreneurship as a psychological category means those psychological characteristics of an individual which allow them effective implementation of their intentions. They include initiative and vigour, resourcefulness, ingenuity and a high need for achievement. In the psychological sense, entrepreneurship is the result of innate characteristics, such as temperament or intelligence, and characteristics acquired in ontogenetic development, such as character, motivation, and attitude [3]. Entrepreneurship as a feature (or a set of psychological traits) facilitates the taking of initiative in the field of entrepreneurial activities (starting an economic activity), however, it is not a sufficient factor to originate them [4]. This is where the concept of the so-called “latent entrepreneurial potential” comes to the aid. It is created in an individual by five fundamental dimensions, which are the need for achievement, a sense of internal control, creativity, leadership skills, and the ability to resort to one’s intuition [5].

Personality traits that allow an individual to implement their intentions are referred to as personal entrepreneurship. Entrepreneurship is often seen as a core competence, which should be owned by every working individual (including workers). However, even from the perspective of competence systems it is very difficult to list all the properties which a person considered to be entrepreneurial should have [6].

Entrepreneurship in the economic sense is based on starting an entrepreneurial activity and taking the associated risks in order to achieve certain, mainly material, benefits. According to one of the first definitions by J. B. Say, an entrepreneur is someone who “transfers economic resources from the lower area to the area of higher productivity and higher yield” [7]. Entrepreneurship is, therefore, the basis for the creation of a company and its development, and is inseparably linked with the desire to make profit. Thus, in this dimension entrepreneurship is a way of action focused on development, successful management of a company, innovation, and expanding to new markets.

Although entrepreneurship as a feature facilitates the taking of initiative in terms of starting and developing a business, it is not a sufficient condition for such behaviour to
occur. We must emphasize the difference between an individual’s entrepreneurial potential, which is a set of characteristics, and the intention – the desire to become an entrepreneur [5]. Possessing the psychological predispositions to run a successful business does not have to mean that an individual has the motivation to undertake such activities.

3 Knowledge as one of the determinants of women’s entrepreneurship

In addition to conditions that apply to all individuals, one can assume the existence of a certain group of specific determinants of women’s entrepreneurship. They include knowledge, self-confidence, partnership in sharing household duties, and resolving the issue of institutional child care [2].

Knowledge and education are an important factor influencing entrepreneurship [8]. Research conducted at the University of Szczecin among Polish students and students living in selected countries of Central and Eastern Europe shows that discouragement arises mainly due to the lack of information on the formal side of starting and running one’s own business. Students of economic universities as well as residents of large cities (37%) are more convinced about their knowledge (42.9%) than those studying at other universities (18.5%) and those living in smaller towns (20.8%) [9]. Among entrepreneurs, only a small share participate in courses or training that would enable them to broaden their knowledge and acquire new skills. The vast majority of them sees no need to do so [10].

A source of knowledge, besides formal education, is also the experience in running a business. On the basis of the results of Zięba’s research one can draw the conclusion that although women have a higher level of education, they lack knowledge and experience in business. As a result, companies run by women have a lower survival rate [11].

The example of parents who are business owners, or at least help in running a family business, allows to gain experience and has a positive impact on the attitude of young people towards creating their own business. One could even talk about the existence of a relationship between setting up their own business and the mother’s or father’s entrepreneurial activity. About half of all entrepreneurial attitudes originate in the home [5]. According to the results of research by students of the Poznan University of Technology, experience in running a business is acquired more often by young men than women [12]. Men are, furthermore, more confident about their own business (47%) than their female counterparts (23.3%). Interestingly, male students list personal qualities as the most important factor in running a business (47.1%), while female students consider it to be experience (43.3%) [12]. It can, therefore, be assumed that the reason for the lower participation of women in entrepreneurship is the lack of faith in their own abilities.

Independent of gender, barriers in running one’s own company cited by business owners can be classified into one of the three groups: economical, educational, and social [13]. Barriers to the development of small and medium-sized enterprises vary, depending on the stage of life of the company. Some difficulties will appear at the time of its launch, and other in the maturity phase [14]. The biggest limitations in the start-up phase are:
- Psychological barriers in deciding to start a business
- Insufficient experience and knowledge
- Lack of capital
- Bureaucratic problems with registration

Deficits in the field of information are of particular importance in the development phase of the company. The barriers experienced by SME owners in the growth phase of their business include [14]:
- Lack of knowledge about the market and the ability to navigate it
- Lack of technological and economic knowledge and of sales skills
- Lack of access to material resources (premises, machines)
- At the stage of maturity, entrepreneurs may be restricted by [14]:
- Lack of financial resources for investments
- Changes in the market
- Low profitability
- Inadequate skills
- Limited access to technical infrastructure

Entrepreneurs, regardless of gender, are limited by lack of knowledge, mainly in the field of accounting, bookkeeping, labour law, economics, and civil law [13]. One can, therefore, speak about the existence of educational barriers in running one’s own business. This limitation can be overcome through training and a developed advisory system. Limited access to training is one of the elements which hinder the economic activity of enterprising individuals. Entrepreneurs need information that would enable them to overcome the administrative and legal barriers, and in particular information to enable them to deal with problems such as [14] changes in tax legislation, levies imposed by the state (taxes, fixed costs, social and health insurance), access to information and business consultancy, and training and further education. Information support is also helpful in overcoming market barriers (economic barriers such as difficulties in obtaining a loan, growing competition, and a shortage of demand) [13-14].

4 Sources of information in the opinion of female students as potential entrepreneurs on the basis of own research results

The information that entrepreneurs can find on the Internet when using portals for small and medium-sized enterprises relates to financing, technology, laws, principles applicable on the EU market, and consulting bodies providing support for SMEs [16]. Some sites also make it possible to establish cooperation, find an investor, sell real property, etc. An important role in this context is played by portals for businesswomen, stressing the importance of social support (e.g. in the form of mentoring) and transferring contacts between the users of the real reality.

A particular source of knowledge are online discussion boards that allow interactive communication of those involved in setting up or running one’s own business [16]. In Poland there are organizations for entrepreneurial women of different ages, with different family situations, education, and income. Each of these institutions has a website containing the information needed to conduct business and to allow the exchange of information. Women can learn from them about training, counselling, empowerment of women in the socio-economic life, returning to work after childbirth, promoting entrepreneurship among mothers of up to three years, and the possibility of using modern technology in conducting their own project [17].

Contemporary Polish economy is evolving towards a knowledge-based economy. Traditional sectors are replaced by the service sector and new technologies, which requires constant upgrading of professional qualifications. In the case of female entrepreneurs with small children, this may be hindered due to lack of time or problems with providing care [2]. Women starting and running a company need knowledge and skills that can be acquired at different stages of their lives, and which relate to many different areas.

At the earliest stage, when the most common entrepreneurial attitudes are usually formed, competencies are acquired through school education and concern two areas: running a business and the industry sector of interest. Initiating and developing an economic activity will depend on the ability to utilize legal advice and various types of training.
In order to determine the importance of information support in promoting women’s entrepreneurship, 25 factors were distinguished that led to the creation of two categories: 1) Sources of information as elements of support 2) Areas of consultancy and training in promoting entrepreneurship

Next, a study involving 384 women from the Polish province of Wielkopolska was conducted [1]. Quota sampling of respondents was used, and on the basis of the results obtained in 2013 and 2014 the usefulness of different types of assistance was determined. The results were compared with an assessment of the same factors made by 174 students of two economic majors at the Poznan University of Technology: a) Engineering Management and b) Management. To enhance the representativeness of the results, two seminar groups were randomly selected from each year and tested. The choice of the study group was based on the belief that these female students are a group of potential entrepreneurs because of their knowledge and skills that prepare them to run their own businesses [1]. Below are the factors in information support of entrepreneurship (Table 1):

| Information source                          | Area of information                                      |
|--------------------------------------------|----------------------------------------------------------|
| Competitions promoting entrepreneurship     | Legal advice on EU support                               |
| Social campaigns promoting entrepreneurship  | Legal advice in the field of infrastructure investments  |
| Billboards                                 | Legal advice on state aid                                |
| Media (radio, TV)                          | Legal advice on the knowledge and development of new technologies |
| Specialized websites                       | Legal advice on subsidizing jobs                         |
| PARP website                               | Legal advice on tax law                                  |
| MRR website                                | Industry-specific training in setting up and running a business |
| Social networks                            | Industry-specific training in export strategy            |
| Books                                      | Training courses, for example in implementing new technologies, handling equipment or new trends |
| Trade press                                | Training in social skills and business skills            |
| Seminars and conferences on entrepreneurship | Knowledge and skills in the field of running one’s own business acquired during school education |
| Family, friends                            | Knowledge and skills in the field of their own industry sector acquired during school education |
| Participation in trade fairs and/or exhibitions | ----------------------------------------------- |

Source: Own elaboration.
Both female entrepreneurs and potential female entrepreneurs (students) responded by checking on a 5-point scale, where 1 meant completely useless support and 5 very useful support.

We investigated the motivation of students to start their own business. Almost half (48.3%) declared the desire to start their own business, 14.9% had no such intention, while 36.8% did not know at the time.

The results obtained allowed identification of the factors of greatest importance in the promotion of women’s entrepreneurship. At the same time, they enabled a comparison of the students’ ideas about running a business against the realities known to business owners.

Industry-specific portals and specialized websites were ranked top by female entrepreneurs in terms of importance in supporting entrepreneurship. In addition, they considered friends and family to be a useful source of knowledge. In the opinion of the female students, the most valuable sources of information are portals and specialized websites. This was followed by media, press and industry-specific books (cf. Table2).

Table 2. Usefulness of sources of information on entrepreneurship. Comparison of ratings by female entrepreneurs and by potential entrepreneurs

| Information sources                           | Potential entrepreneurs | Female entrepreneurs |
|-----------------------------------------------|-------------------------|----------------------|
| Competitions promoting entrepreneurship        | 3.74                    | 3.33                 |
| Social campaigns promoting entrepreneurship    | 3.82                    | 3.50                 |
| Billboards                                    | 3.61                    | 3.35                 |
| Media (radio, TV)                             | 4.05                    | 3.79                 |
| Specialized websites                          | 4.38                    | 4.14                 |
| PARP website                                  | 3.89                    | 3.79                 |
| MRR website                                   | 3.89                    | 3.65                 |
| Social networks                               | 3.99                    | 3.64                 |
| Books                                         | 3.66                    | 3.80                 |
| Trade press                                   | 3.99                    | 4.07                 |
| Seminars and conferences on entrepreneurship   | 3.89                    | 3.79                 |
| Family, friends                               | 3.82                    | 4.08                 |
| Participation in trade fairs and/or exhibitions| 3.80                    | 3.89                 |

Source: Own research.

The students evaluated the suitability of different areas of support higher than female business owners. The entrepreneurs valued most the industry-specific knowledge and skills.
gained during their school education. The students highly appreciated the role of industry-specific training in establishing and running a company (cf. Table 3).

**Table 3.** Usefulness of areas of information about entrepreneurship. Comparison of ratings by female entrepreneurs and by potential entrepreneurs.

| Areas of information                                           | Potential entrepreneurs | Female entrepreneurs |
|---------------------------------------------------------------|-------------------------|----------------------|
|                                                              | Arithmetic average:     | Arithmetic average:   |
| Legal advice on EU support                                   | 4.51                    | 3.79                 |
| Legal advice in the field of infrastructure investments      | 4.26                    | 3.42                 |
| Legal advice on state aid                                    | 4.06                    | 3.56                 |
| Legal advice on the knowledge and development of new technologies | 4.34                    | 3.56                 |
| Legal advice on subsidizing jobs                             | 4.28                    | 3.79                 |
| Legal advice on tax law                                      | 4.44                    | 3.90                 |
| Industry-specific training in setting up and running a business | 4.63                    | 3.91                 |
| Industry-specific training in export strategy                | 4.09                    | 3.44                 |
| Training courses, for example in implementing new technologies, handling equipment or new trends | 4.38                    | 3.84                 |
| Training in social skills and business skills                | 4.31                    | 3.81                 |
| Knowledge and skills in the field of running one’s own business acquired during school education | 4.17                    | 3.93                 |
| Knowledge and skills in the field of their own industry sector acquired during school education | 4.22                    | 4.05                 |

Source: Own research.

It is worth noting that the generation of potential entrepreneurs attributed particular importance to the media (Internet, television, radio) as sources offering the most useful information on entrepreneurship (cf. Table 2). Meanwhile, business owners, in addition to knowledge gained from the Internet (industry-specific portals and specialized websites), appreciated their family and friends as a source of knowledge. In addition, female students valued knowledge about starting and running a business, while business owners – knowledge of their own industry sector. Thus, the older and more experienced generation of businesswomen is more focused on professional skills, while students realize the importance of knowledge in the field of starting and running a business.
5 Summary and conclusions

The results of this study reveal the existence of gaps that occur between the assessment of support by students and by female entrepreneurs. The opinions expressed by business owners lead to the conclusion that the functioning forms of support are not as useful as theory or the common sense of potential entrepreneurs would suggest. This discrepancy between expectations and the actual state may result in disappointment and abandonment of entrepreneurship upon confrontation with reality.

Based on the results obtained, one can infer that there is support business owners are not familiar with but which is becoming increasingly popular among the younger generation of students of economics. Lack of knowledge or subjectively understood lack of need may be the reason for not using the help offered by institutions providing information support.

References

1. P. Siemieniak, Metody wspierania przedsiębiorczości kobiet, Praca doktorska. Politechnika Poznańska (2014)
2. P. Siemieniak, T. Łuczka, Przedsiębiorczość kobiet. Wybrane aspekty ekonomiczne i psycho-kulturowe, Poznań, Wydawnictwo Politechniki Poznańskiej (2016)
3. J.F. Terelak, Psychologia menedżera, Warszawa, Difin (1999)
4. H. Bieniok, Kształtowanie postaw przedsiębiorczych młodzieży w rodzinie, szkole i uczelni, in: Kształtowanie postaw przedsiębiorczych a edukacja ekonomiczna, (Ed: P. Wachowiak, M. Dąbrowski, B. Majewski, Fundacja Promocji i Akredytacji Kierunków Ekonomicznych, Warszawa, 2007)
5. R. Athayde, Entrepreneurship. Theory and Practice, Vol. 33, Iss. 2, March, pp. 481-500 (2009)
6. A. Marszałek, E-mentor, nr 3 (40), (2011) http://www.e-mentor.edu.pl/artykul/index/numer/40/id/841 (as assessed on 10.10.2012)
7. P. F. Drucker, Innovacja i przedsiębiorczość. Praktyka i zasady, (Warszawa, Państwowe Wydawnictwo Ekonomiczne, p. 30, 1992)
8. T. Łuczka, M. Rembiasz, Horyzonty Wychowania, 15 (34), 27-47. DOI: 10.17399/HW.2016.153402 (2016)
9. T. Bernat, J. Korpsy, M. Kunasz, Przedsiębiorczość studentów studiów dziennych–raport z badań, Szczecin, Uniwersytet Szczeciński, Katedra Mikroekonomii (2008)
10. J. Wasilczuk, N. Dąszkiewicz, Polscy właściciele/menedżerowie wobec jednolitego rynku europejskiego, in: Małe i średnie przedsiębiorstwa w obliczu internacjonalizacji i integracji gospodarek europejskich. Przykłady Włoch, Francji, Polski i Czech, ed: P. Dominia, J. Wasilczuk, N. Dąszkiewicz, Gdańsk, Scientific Publishing Group (2005)
11. K. Zięba, Pleć właściciela/menedżera jako czynnik kształtujący rozwój małej firmy – aspekty teoretyczne i wyniki badań empirycznych, in: Strategie zarządzania mikro i małymi przedsiębiorstwami, ed: A. Bielawska, A. Szopa, Zeszyty Naukowe Uniwersytetu Szczecińskiego, 585, Ekonomiczne Problemy Usług, 50 (2010)
12. P. Siemieniak, Zeszyty Naukowe Uniwersytetu Szczecińskiego, 588, Ekonomiczne Problemy Usług, 51, ed: A. Bielawska, T. Łuczka (2010)
13. E. Rolnik-Sadowska, Przedsiębiorczość kobiet w Polsce, Warszawa, Difin (2010)
14. A. Kamińska, Regionalne determinanty rozwoju małych i średnich przedsiębiorstw, Wydawnictwo, Warszawa, Difin (2011)
15. T. Łuczka, Makro- i mikroekonomiczne determinanty struktury kapitału w małych i średnich przedsiębiorstwach, Poznań, Wydawnictwo Politechniki Poznańskiej (2013)
16. M. Rembiasz, P. Siemieniak, J. Pawlak, Internet as a tool to promote women's entrepreneurship. Selected aspects, Research Reports (to be published) (2016)
17. M. Rembiasz, Zeszyty Naukowe Politechniki Poznańskiej. Organizacja i Zarządzanie 68, 167-179 (2016)