

# Characteristics of women and men entrepreneurs according to the student population in Croatia

---

Kristić, Jelena; Fosić, Ivana; Štefanić, Ivan

Source / Izvornik: **Ekonomski vjesnik : Review of Contemporary Entrepreneurship, Business, and Economic Issues, 2023, 36, 101 - 112**

Journal article, Published version

Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

<https://doi.org/10.51680/ev.36.1.8>

Permanent link / Trajna poveznica: <https://urn.nsk.hr/urn:nbn:hr:151:324830>

Rights / Prava: [In copyright](#)/[Zaštićeno autorskim pravom.](#)

Download date / Datum preuzimanja: **2024-10-20**



Sveučilište Josipa Jurja  
Strossmayera u Osijeku

**Fakultet  
agrobiotehničkih  
znanosti Osijek**

Repository / Repozitorij:

[Repository of the Faculty of Agrobiotechnical  
Sciences Osijek - Repository of the Faculty of  
Agrobiotechnical Sciences Osijek](#)



**Jelena Kristić**

Josip Juraj Strossmayer  
University of Osijek  
Faculty of Agrobiotechnical  
Sciences Osijek  
31000 Osijek, Croatia  
jkristic@fazos.hr

**Ivan Štefanić**

Josip Juraj Strossmayer  
University of Osijek  
Faculty of Agrobiotechnical  
Sciences Osijek  
31000 Osijek, Croatia  
istefanic@fazos.hr

**JEL: J16, L26, P25**

**Original scientific article**  
<https://doi.org/10.51680/ev.36.1.8>

Received: January 12, 2023

Revision received: March 8, 2023

Accepted for publishing: March 8, 2023

**Ivana Fosić**

Josip Juraj Strossmayer  
University of Osijek  
Faculty of Economics in Osijek  
31000 Osijek, Croatia  
ivana.fosic@efos.hr

This work is licensed under a  
Creative Commons Attribution-  
NonCommercial-NoDerivatives 4.0  
International License



# CHARACTERISTICS OF WOMEN AND MEN ENTREPRENEURS ACCORDING TO THE STUDENT POPULATION IN CROATIA

## ABSTRACT

**Purpose:** The aim of this paper is to determine which characteristics the student population, especially student rural population, perceives as typical of women and men entrepreneurs, respectively, their grouping into latent factors, and the identification of possible differences in attitudes of respondents with regard to their demographic variables.

**Methodology:** An indicative survey was conducted on a sample of 1,157 respondents of the student population in Croatia by a questionnaire as a research tool. Descriptive statistical data analysis, inferential statistics, simple analysis of variance (one-way ANOVA) and exploratory factor analysis were used in the research.

**Results:** The results show that there are differences in attitudes towards the characteristics of women entrepreneurs and men entrepreneurs, with particular emphasis on differences in the perception of women's entrepreneurship in rural areas.

**Conclusion:** Positive trends in thinking about women's entrepreneurship in rural areas are very interesting and promising, which may eventually result in a reduction in the women's unemployment rate in rural areas and in valuing women as capable entrepreneurs.

**Keywords:** Entrepreneurial characteristics, women's entrepreneurship, student population, Croatia

## 1. Introduction

The area of entrepreneurship is most commonly associated with the male population, while women are less represented in entrepreneurial activity. Trying to achieve a balance between men and women has led to a partial change in people's awareness and strengthening of the role of women in econom-

ic growth and development, which is particularly evident in Asia, in countries such as Indonesia and Kazakhstan, but also in Angola and Togo, the best representatives of Africa (Global Entrepreneurship Monitor, 2021).

It is an indisputable fact that the situation in the last ten years has gotten better, but the potential of

women or women's entrepreneurship is still not sufficiently utilised, although the presence of women in entrepreneurship and management is very important and closely related to achieving positive economic results (Martín-Ugedo & Minguez-Vera, 2014). There are also contradicting opinions that women's and men's entrepreneurship should not be discussed since entrepreneurship is a concept that involves both genders, but because of the many obstacles women entrepreneurs encounter when initiating an entrepreneurial venture, women's entrepreneurship should and must be discussed even more.

The position of women today is more favourable than it was in the past when women had to conform to the traditionally accepted norms characteristic of women, that is, the traditional roles of mother, wife and housewife. The struggle for gender equality, equal opportunities in education, employment and earnings has indirectly resulted in a slight increase in the number of women entrepreneurs and self-actualisation of women, and also in the creation of a double image of success achieved in family and professional life (Díaz García & Welter, 2011), which is often not an easy task.

From all of the above, the aim of this paper is (i) to determine which characteristics the student population, especially the student rural population, perceives as typical of women and men entrepreneurs, respectively; (ii) their grouping into latent factors; and (iii) the identification of possible differences in attitudes of respondents with regard to their demographic variables.

## 2. Theoretical background

For years, and especially in rural areas, women have been characterised by a lower employment rate, longer job waiting time, and hence employment, although most of them are of working age (Carter & Marlow, 2007). A good, and sometimes the only way, out of the vicious circle of unemployment is self-employment of women by starting their own business in the area of small business entrepreneurship (Kristić et al., 2016).

The initiation of entrepreneurial activities should be related to equal opportunities and valorisation of entrepreneurial activities of women and men. This equality in the Republic of Croatia has not yet been achieved, which is especially evident by comparing the index of entrepreneurially active men and women per one hundred adult inhabitants (Kristić et al., 2018).

Since 2002, the Republic of Croatia has been included in the GEM (Global Entrepreneurship

Monitor) program, which keeps track of changes in women's entrepreneurial activity using comparative analyses with other European countries and the world. In terms of starting entrepreneurial activity in the Republic of Croatia in 2020, women were almost two times less active than men (Global Entrepreneurship Monitor, 2020), which is a better result if we consider that in 2005 this difference was 3.78. In the categories of employment and total income, in 2017, women entrepreneurs in Croatia participated with 4.4% in total income and with 8.2% in total employment (Vrdoljak Raguž, 2020). The results of a survey conducted in 2015 place Croatia in the group of countries that favour the development of women's entrepreneurship. Croatian women entrepreneurs are mostly solo entrepreneurs (79%), and only 21% employ additional workers (Zirdum & Cvitanović, 2017).

Difficulties in accessing funding resources, insufficient support from institutions and inadequate legislation to strengthen gender equality, the traditional role of women in society, lack of educational programs and training programs, but also general dissatisfaction with financial opportunities (Fosić et al., 2017), encourage women's entry into self-employment, unfortunately, very often due to extreme necessity, which is particularly characteristic of rural areas where agricultural production is the dominant economic activity and the process of depopulation and feminisation of the village is a common occurrence (Kristić & Deže, 2011). In the Republic of Croatia, in the category of starting their business out of necessity, women entrepreneurs are ahead of men, i.e. 50% of women compared to 26% of men (Global Entrepreneurship Monitor, 2017) move into entrepreneurial activities for one reason only, and that is survival. The necessity motivator has often a bigger impact than the opportunity motivator. It is precisely rural women who are most often found in a kind of interspace between the neo-liberal paradigm and conservatism, i.e. there is a conflict between the desire to create self-sustainability through self-employment and entrepreneurial activity on the one hand, and to care for the farm and family on the other (Altan-Olcay, 2014). We can say that rural women entrepreneurs are a very important link in the socio-economic process, economic growth and sustainability, since they bring change not only to themselves but also to their community. Their empowerment represents the potential of social entrepreneurship in agriculture (Gramm et al., 2020). They are the key drivers of sustainable development, as they manifest greater social and environmental commitment and often tend to value

social and qualitative aspects more than economic ones, pursuing a balance between economic and non-economic objectives (Stefan et al., 2021).

The aforementioned reasons for less entrepreneurial activity of women in relation to men in the Republic of Croatia are very clear and evident, but the real question is whether there are differences between the characteristics of men entrepreneurs and women entrepreneurs and whether they are also responsible for the tendencies of entrepreneurial behavior. Although at first glance the characteristics of men entrepreneurs and women entrepreneurs do not exist, i.e. there should be no significant differences (Gundry et al., 2002; Rada-Florina et al., 2009), various studies have shown that there are indeed characteristics that are very much present in women and men entrepreneurs distinctively (Wagner, 2004; Gentry et al., 2010; Munshi et al., 2011).

### 3. Methodology

The survey used the method of collecting primary data by a questionnaire as a research tool. The questionnaire consisted of 23 closed-type questions divided into several groups related to the characteristics of women entrepreneurs and men entrepreneurs, obstacles to entrepreneurial activity, the reasons for launching an entrepreneurial venture and attitudes of respondents towards women and men in their entrepreneurial activities. The last group

of questions refers to sociodemographic characteristics of respondents. The list of men entrepreneurial/women entrepreneurial characteristics has been elaborated according to Miner's questionnaire (1997), which defined the key entrepreneurial traits needed to achieve entrepreneurial success. Due to the wide scope of research, only the parts related to the attitudes of the respondents towards particular characteristics of women entrepreneurs and men entrepreneurs are presented in this paper.

The target group of the respondents were undergraduate and graduate students uniformly distributed on all constituent units of Josip Juraj Strossmayer University of Osijek. The questionnaire was filled out by 1,157 respondents, making the response rate 6.07%, which is relevant for this type of research (Meler, 2005). Students were selected as the target group of young people because they represent the future strength in the design of innovation and the development of entrepreneurial competencies that often lead to the creation of successful start-ups.

Of the total number of respondents (Table 1), 63.2% were women and 36.8% were men, corresponding to the data of the total population (59.2% women, 40.8% men). Similar sample and population data are also found in the scientific field of study, which is another argument that contributes to the representativeness of the sample.

**Table 1 Students in the sample and population**

| Demographics              |                             | Sample | Population* |
|---------------------------|-----------------------------|--------|-------------|
| Gender                    | Women                       | 63.2   | 59.2        |
|                           | Men                         | 36.8   | 40.8        |
| The area they come from   | Urban                       | 47.3   | N/A         |
|                           | Suburban                    | 14.1   | N/A         |
|                           | Rural                       | 38.6   | N/A         |
| Monthly household income  | < \$530                     | 13.1   | N/A         |
|                           | \$530 - \$730               | 18.6   | N/A         |
|                           | \$731 - \$1,066             | 19.0   | N/A         |
|                           | \$1,067 - \$1,400           | 13.0   | N/A         |
|                           | > \$1,400                   | 14.5   | N/A         |
|                           | No answer                   | 21.8   | N/A         |
| Scientific field of study | Natural Sciences            | 8.1    | 5.3         |
|                           | Biomedicine and Health Care | 5.9    | 5.4         |
|                           | Biotechnical Sciences       | 14.8   | 12.3        |
|                           | Social Sciences             | 44.1   | 45.3        |
|                           | Humanities                  | 12.5   | 9.1         |
|                           | Technical Sciences          | 14.6   | 22.6        |

Note: N/A = not available; \* = Josip Juraj Strossmayer University of Osijek.

Source: Authors' research

The data collected in the study were processed by the SPSS Statistics 17.0 desktop statistical software package, while descriptive statistical data analysis methods like frequency, standard deviation, percentages and arithmetic mean were used in the research to describe the sample. Inferential statistics were also used to determine the probability that the conclusions based on the data are reliable. Of the parametric tests, simple analysis of variance (one-way ANOVA) was conducted to determine the differences in individual attitudes among the respondents (Fosić et al., 2017; Nandamuri & Gowthami, 2013).

Exploratory factor analysis was used to identify a smaller number of latent factors explaining the interconnection between the items of the subscale “Characteristics of Women Entrepreneurs” and “Characteristics of Men Entrepreneurs”, and since the assumption was that the characteristics of wom-

en and men entrepreneurs correlate with each other, oblimin rotation was used. For the purpose of testing data adequacy for factor analysis, Bartlett’s test of sphericity and the Keiser-Meyer-Olkin (KMO) test measuring sampling adequacy were conducted.

#### 4. Results and discussion

In order to examine the differences in the student population’s perception of the characteristics of men and women entrepreneurs, they were asked a question about the entrepreneurial traits of men and women entrepreneurs, respectively, in which they expressed their attitudes using the Likert five-point scale. To determine the categories of responses to individual characteristics, the arithmetic mean (M) and standard deviation (SD) were calculated using the descriptive statistics methods, as presented in Table 2.

**Table 2 Respondents’ attitudes towards the characteristics of women entrepreneurs and men entrepreneurs**

|                                     | Women |       | Men  |       |
|-------------------------------------|-------|-------|------|-------|
|                                     | M     | SD    | M    | SD    |
| empathy                             | 3.78  | 0.998 | 2.60 | 0.885 |
| conflict                            | 3.42  | 1.011 | 3.58 | 0.922 |
| good organisation                   | 4.21  | 0.847 | 3.66 | 0.869 |
| initiative                          | 3.70  | 0.927 | 3.89 | 0.834 |
| self-confidence                     | 3.72  | 0.924 | 4.23 | 0.786 |
| intuition                           | 4.05  | 0.926 | 3.38 | 0.936 |
| stability                           | 3.53  | 0.960 | 3.89 | 0.860 |
| risk-taking                         | 3.37  | 0.985 | 4.13 | 0.845 |
| higher education                    | 4.14  | 0.951 | 4.00 | 0.922 |
| financial stability                 | 3.73  | 0.918 | 3.99 | 0.863 |
| experience                          | 3.56  | 0.962 | 3.89 | 0.896 |
| patience                            | 3.85  | 1.046 | 3.28 | 0.972 |
| thoughtfulness                      | 3.69  | 0.954 | 3.63 | 0.923 |
| diligence                           | 4.21  | 0.856 | 3.66 | 0.906 |
| respect for other people’s opinions | 3.77  | 1.023 | 3.30 | 0.904 |
| teamwork                            | 3.91  | 0.926 | 3.72 | 0.914 |
| communication skills                | 4.21  | 0.845 | 3.80 | 0.898 |
| youth                               | 3.55  | 1.091 | 3.43 | 1.014 |
| leadership                          | 3.61  | 1.033 | 4.15 | 0.964 |
| resistance to change                | 3.18  | 1.073 | 3.40 | 1.073 |
| control                             | 3.73  | 0.949 | 3.79 | 0.932 |
| creativity                          | 4.24  | 0.875 | 3.51 | 0.938 |
| generosity                          | 3.59  | 1.034 | 3.27 | 0.913 |
| loyalty                             | 3.61  | 0.931 | 3.45 | 0.868 |
| independence                        | 3.62  | 0.966 | 3.93 | 0.925 |
| ambition                            | 4.20  | 0.859 | 4.12 | 0.833 |
| optimism                            | 3.93  | 0.988 | 3.85 | 0.912 |

Note: N = 1157 respondents, the range of answers 1-5, SD = standard deviation.

Source: Authors’ research

In order to determine which characteristics are more closely related to women and men entrepreneurs, respectively, the responses “matches the description” and “strongly matches the description” (points 4 and 5 on a five-point scale) were taken into account. The common characteristics of women entrepreneurs and men entrepreneurs are those for which the respondents’ answers do not differ by more than 10%, while the characteristics for which differences are greater than 10% are attributed either to women entrepreneurs or to men entrepreneurs. The interpretation of the results excluded the resistance to change characteristic, because according to the respondents’ answers, this characteristic corresponds to a large extent to neither women entrepreneurs (61.8%) nor men entrepreneurs (52.8%).

Characteristics that respondents believe are more related to women entrepreneurs are good organisation (84.7% for women, 61.1% for men), intuition (73.3% vs. 44.4%), diligence (82.0% vs. 59.1%), communication skills (81.2% vs. 63.5%), creativity (81.3% vs. 50.6%), empathy (69.4% vs. 10.6%), patience (66.7% vs. 39.3%), respect for other people’s opinions (64.4% vs. 40.6%), generosity (54.0% vs. 38.6%), and loyalty (56.4% vs. 47.8%).

Characteristics of self-confidence (83.7% for men, 62.1% for women), risk-taking (78.7% vs. 45.1%), stability (69.3% vs. 53.0%), financial stability (73.6% vs. 62.6%), experience (69.4% vs. 55.6%), independence (69.3% vs. 57.2%), and leadership (78.4% vs. 56.5%) are more related to men entrepreneurs, which corresponds to Mirchandani’s (1999) research, which relates characteristics such as inde-

pendence, competitiveness, self-confidence (Rada-Florina et al., 2009), and risk-taking (Carter & Marlow, 2007; Watson & Newby, 2007) exclusively to men entrepreneurs. Women more frequently perceive the situation as risky but also exhibit less risky entrepreneurial behaviour (Wagner, 2004).

Some of the characteristics such as youth (50.4% for women, 45.9% for men), where entrepreneurs are expected to have entered their thirties and forties (Carter & Marlow, 2007; Dodescu et al., 2011; Gelo et al., 2011; Botric, 2012), conflict (46.2% vs. 54.5%), initiative (60.7% vs. 69.2%), higher education (79.3% vs. 73.7%), thoughtfulness (60.2% vs. 58.4%), teamwork (70.1% vs. 60.2%), control (59.4% vs. 63.2%), ambition (81.7% vs. 78.0%), and optimism (67.8% vs. 66.0%) fall into the group of common traits, which, according to the student population, are characteristic of both women and men entrepreneurs. The list of characteristics of women entrepreneurs almost entirely corresponds to Jalbert’s (2000) research, which has shown that women entrepreneurs are most likely to differ from men in communication skills, intuition, continuous work on their abilities and empathy. Creativity is a trait that is also explicitly attributed to women entrepreneurs in the research of Munshi et al. (2011) and Tan (2008). Women often believe that respect, respect for other people’s opinions (Vuk & Kroló Crvelin, 2006), equality and patience are much more useful in communication, thus they are less prone to conflicts (Gentry et al., 2010), while men accept entrepreneurial risk more often and faster (Akehurst et al., 2012).

**Table 3 Testing the differences between the arithmetic means for characteristics of women entrepreneurs related to the area**

| Characteristics     | Where are you from? |       |                   |       |                   |       | F-ratio | p        |
|---------------------|---------------------|-------|-------------------|-------|-------------------|-------|---------|----------|
|                     | Urban               |       | Suburban          |       | Rural             |       |         |          |
|                     | M                   | SD    | M                 | SD    | M                 | SD    |         |          |
| conflict            | 3.51 <sup>a</sup>   | 0.956 | 3.35 <sup>b</sup> | 1.063 | 3.32 <sup>a</sup> | 1.048 | 4.770   | 0.009 ** |
| good organisation   | 4.16 <sup>a</sup>   | 0.868 | 4.14 <sup>b</sup> | 0.922 | 4.29 <sup>a</sup> | 0.786 | 3.457   | 0.032 *  |
| initiative          | 3.65 <sup>a</sup>   | 0.936 | 3.60 <sup>b</sup> | 0.959 | 3.81 <sup>a</sup> | 0.896 | 4.603   | 0.010*   |
| self-confidence     | 3.70 <sup>b</sup>   | 0.914 | 3.57 <sup>a</sup> | 1.006 | 3.78 <sup>a</sup> | 0.901 | 3.253   | 0.039*   |
| stability           | 3.45 <sup>a</sup>   | 0.974 | 3.48 <sup>b</sup> | 1.008 | 3.64 <sup>a</sup> | 0.915 | 4.900   | 0.008**  |
| risk-taking         | 3.24 <sup>a</sup>   | 0.949 | 3.45 <sup>b</sup> | 0.995 | 3.49 <sup>a</sup> | 1.006 | 8.602   | 0.000**  |
| financial stability | 3.72 <sup>b</sup>   | 0.884 | 3.58 <sup>a</sup> | 0.967 | 3.81 <sup>a</sup> | 0.934 | 3.761   | 0.024*   |
| teamwork            | 3.79 <sup>a</sup>   | 0.940 | 3.94 <sup>b</sup> | 0.858 | 4.04 <sup>a</sup> | 0.916 | 9.254   | 0.000**  |
| creativity          | 4.18 <sup>a</sup>   | 0.889 | 4.18 <sup>b</sup> | 0.911 | 4.34 <sup>a</sup> | 0.836 | 4.516   | 0.011*   |
| generosity          | 3.59 <sup>b</sup>   | 1.026 | 3.42 <sup>a</sup> | 1.070 | 3.67 <sup>a</sup> | 1.025 | 3.590   | 0.028*   |

Note: To determine the difference between the arithmetic means of the statements related to the category of the area, simple variant analysis - ANOVA,  $df = 2$  was used. The table lists only the characteristics for which a statistically significant difference ( $ab^* p < 0.05$ ;  $**p < 0.01$ ) has been established.

Source: Authors’ research



Although higher education, as a common characteristic of both women and men entrepreneurs (Aidis et al., 2007), does not have to be related to the initiation of an entrepreneurial venture and entrepreneurial behaviour, it still reduces an individual's risk of falling into poverty and increases the number of opportunities for better paid jobs (Bárcena-Martín & Moro-Egido, 2013).

In order to determine whether there are differences in the attitudes of the respondents towards the statements on the aforementioned characteristics of women and men entrepreneurs, according to their socioeconomic and demographic traits (gender, area, household income, scientific field of study), simple variance analysis (ANOVA) was conducted. There are statistically significant differences in the estimation of the characteristics listed in Table 2 in the area category for the characteristics of women entrepreneurs, and they are listed in Table 3, while in the categories of gender, household income and the scientific field of study for women entrepreneurs and all four demographic traits for men entrepreneurs, there are no statistically significant differences, and for this reason, they have not been mentioned.

Compared with respondents coming from the city, respondents coming from rural areas attribute the following characteristics more to women entrepreneurs: good organisation ( $F = 3.457$ ,  $df = 2$ ,  $p < 0.032$ ), initiative ( $F = 4.603$ ,  $df = 2$ ,  $p < 0.010$ ), self-confidence ( $F = 3.253$ ,  $df = 2$ ,  $p < 0.039$ ), stability ( $F = 4.900$ ,  $df = 2$ ,  $p < 0.008$ ), risk-taking ( $F = 8.602$ ,  $df = 2$ ,  $p < 0.000$ ), financial stability ( $F = 3.761$ ,  $df = 2$ ,  $p < 0.024$ ), teamwork ( $F = 9.254$ ,  $df = 2$ ,  $p < 0.000$ ), creativity ( $F = 4.516$ ,  $df = 2$ ,  $p < 0.011$ ), and generosity ( $F = 3.590$ ,  $df = 2$ ,  $p < 0.028$ ), while in the case of conflicts, the situation is reverse, i.e. those coming from urban areas compared to respondents coming from rural areas attribute this characteristic more to women entrepreneurs ( $F = 4.770$ ,  $df = 2$ ,  $p < 0.009$ ). The absence of a statistically significant difference in responses between young women and men and greater valuing of certain characteristics of women entrepreneurs by young people from ru-

ral areas is surprising but very encouraging. Quite frequently, entrepreneurship is the only solution for hiring young people from rural areas through opening micro-enterprises (Sharma et al., 2012), which is particularly significant for the female population (Sidhu & Kaur, 2006).

After establishing the differences in characteristics typical of women and men entrepreneurs, it is necessary to extract relevant factors from a relatively large number of characteristics. Factor analysis was conducted by the main component (PC) method on the matrix of correlation between 25 parts of the subgroup "Characteristics of women entrepreneurs" (in the preliminary analysis, empathy and conflict parts were excluded), and since we assumed that the characteristics of women entrepreneurs correlate with each other, oblimin rotation was used. Bartlett's test of sphericity, which rejected the assumption that the correlation matrix was an identity one ( $p < 0.01$ ), confirms that data are suitable for factorisation. The second check was done using the KMO measure. Our data provide a KMO value of 0.940, which means that 94% of covariates among variables are conditioned by common factors, while the other 6% are caused by correlated unicity, which is an excellent value (Fulgosi, 1988), so we can conclude that a more than satisfactory value on this criterion was achieved and that it is justified to carry out the process of factor analysis.

This criterion has extracted four significant factors, but it should be noted that the characteristic root of the fourth factor is 1.137, which is only slightly above the value of 1 which is taken as a limit of significance in this process. In order to facilitate the determination of the variables involved in the design of each factor, it is necessary to perform the rotation of the main components. After the rotation, a simpler structure is obtained, characterised by the fact that each factor is more strongly correlated with some variables and less strongly correlated with others (Table 4).

**Table 4** The results of factor analysis and the corresponding coefficients for 25 extracted components of the characteristics of women entrepreneurs

|  | Factor analysis |              |                        |
|--|-----------------|--------------|------------------------|
|  | Factor loading  | Eigenvalue   | Variance explained (%) |
| <b>Factor 1: Work skills/characteristics</b>                       |                 | <b>8.423</b> | <b>33.694</b>          |
| Stability  | 0.504           |              |                        |
| Patience   | 0.678           |              |                        |
| Thoughtfulness   | 0.517           |              |                        |
| Diligence  | 0.661           |              |                        |
| Respect for other people's opinions                                | 0.743           |              |                        |
| Teamwork   | 0.702           |              |                        |
| Communication skills   | 0.569           |              |                        |
| Creativity   | 0.628           |              |                        |
| Generosity   | 0.698           |              |                        |
| Loyalty  | 0.667           |              |                        |
| Independence   | 0.520           |              |                        |
| Optimism   | 0.655           |              |                        |
| <b>Factor 2: Characteristics of successful women Entrepreneurs</b> |                 | <b>1.534</b> | <b>6.137</b>           |
| Higher education   | 0.638           |              |                        |
| Financial stability  | 0.524           |              |                        |
| Experience   | 0.668           |              |                        |
| Youth  | 0.643           |              |                        |
| Leadership   | 0.624           |              |                        |
| Resistance to change   | 0.671           |              |                        |
| Control  | 0.570           |              |                        |
| <b>Factor 3: Intrapyschic characteristics</b>                      |                 | <b>1.470</b> | <b>5.881</b>           |
| Good organisation  | 0.551           |              |                        |
| Initiative   | 0.681           |              |                        |
| Self-esteem  | 0.731           |              |                        |
| Intuition  | 0.494           |              |                        |
| Risk-taking  | 0.632           |              |                        |
| Ambition   | 0.595           |              |                        |

Source: Authors' research

The first factor explains 33.69% of variance, and the following variables were involved in its formation: stability, patience, thoughtfulness, diligence, respect for other people's opinions, teamwork, communication skills, creativity, generosity, loyalty, independence, and optimism. Taking into account the variables most strongly associated with the first factor, this factor can be called a factor of work skills/characteristics. The second factor explains 6.14% of variance, and is made up of the following variables: higher education, financial stability,

experience, youth, leadership, resistance to change, and control. This factor is characterised by the characteristics of successful women entrepreneurs, and given the most strongly correlated variables, we can call it the factor of successful women entrepreneurs. The third factor explains 5.88% of variance, and it is determined by the particles organisation, initiative, self-confidence, intuition, risk-taking and ambition. All these variables refer to basic (innate) personality traits and can be called a factor of intrapsychic traits.



The same method of factor analysis was applied to the characteristics of men entrepreneurs. Bartlett's test of sphericity, which rejected the assumption that the correlation matrix was an identity one ( $p < 0.01$ ), confirms that data are suitable for factorisation. The KMO value is 0.912, which means that 91.2% of the covariation among the variables is conditioned by common factors, while the other 8.8% is caused by correlated unicity, and again, a more than satisfactory value was achieved and the implementation of factor analysis is justified. This criterion extracted five significant factors, but the characteristic roots of the fourth and fifth factors are 1.211

and 1.122, respectively, so they did not enter the further analysis process. The percentage of the total variance explained by the first factor is 25.92%, while the second and third factors explain 8.6% and 5.2% of the total variance. In order to facilitate the determination of the variables involved in the design of each factor, it is necessary to perform the rotation of the main components. After the rotation, a simpler structure is obtained, characterised by the fact that each factor is more strongly correlated with some variables and less strongly correlated with others (Table 5).

**Table 5** The results of factor analysis and the associated coefficients for 25 extracted components of the characteristics of men entrepreneurs

|  | Factor analysis |              |                        |
|--|-----------------|--------------|------------------------|
|  | Factor loading  | Eigenvalue   | Variance explained (%) |
| <b>Factor 1: Characteristics of successful entrepreneurs</b> |                 | <b>6.479</b> | <b>25.915</b>          |
| Leadership   | 0.730           |              |                        |
| Independence   | 0.680           |              |                        |
| Experience   | 0.613           |              |                        |
| Financial stability  | 0.606           |              |                        |
| Higher education   | 0.603           |              |                        |
| Control  | 0.550           |              |                        |
| Ambition   | 0.519           |              |                        |
| Resistance to change   | 0.493           |              |                        |
| Conflict   | 0.450           |              |                        |
| <b>Factor 2: Work skills/characteristics</b>                 |                 | <b>2.151</b> | <b>8.604</b>           |
| Respect for other people's opinions                          | 0.693           |              |                        |
| Generosity   | 0.630           |              |                        |
| Patience   | 0.625           |              |                        |
| Teamwork   | 0.577           |              |                        |
| Loyalty  | 0.575           |              |                        |
| Creativity   | 0.540           |              |                        |
| Optimism   | 0.530           |              |                        |
| Diligence  | 0.523           |              |                        |
| Thoughtfulness   | 0.502           |              |                        |
| Communication skills   | 0.491           |              |                        |
| <b>Factor 3: Intrapyschic characteristics</b>                |                 | <b>1.290</b> | <b>5.161</b>           |
| Initiative   | 0.661           |              |                        |
| Good organisation  | 0.636           |              |                        |
| Intuition  | 0.597           |              |                        |
| Self-esteem  | 0.590           |              |                        |
| Stability  | 0.544           |              |                        |
| Risk-taking  | 0.521           |              |                        |

Source: Authors' research

The first factor projects nine manifest variables - leadership, independence, experience, financial stability, resistance to change, higher education, control, conflict, and ambition. This factor is characterised by the characteristics of successful entrepreneurs, so we can call it the factor of the characteristics of successful entrepreneurs. The second factor is determined by ten variables - respect for other people's opinions, generosity, patience, loyalty, teamwork, creativity, optimism, thoughtfulness, communication skills, and diligence. This factor is characterised by the traits essential to work and can be called the factor of work skills/characteristics. The third factor is determined by six variables - initiative, organisation, intuition, self-confidence, stability, and risk acceptance, and they relate to fundamental (innate) personality traits and can be called the factor of intrapsychic traits.

Factors for women and men entrepreneurs are very similar, but there are obvious differences. In terms of women, work skills variables include stability and independence variables, intrapsychic variables include ambition, and youth appears in the characteristics of successful women entrepreneurs. When it comes to men, there is a difference between intrapsychic traits in the stability variable, while in the characteristics of successful men entrepreneurs, there is a distinction among independence, conflict, and ambition variables.

Among women entrepreneurs, most of the variance is explained by the work skills factor, while the most strongly associated variables are team work, respect for other people's opinions, generosity, and patience. Among men entrepreneurs, most of the variation is explained by the characteristics of successful entrepreneur factor, and its construction is dominated by variables of leadership, independence, experience, and financial stability. Women prefer to select a sustainable business model rather than the traditional, profit-oriented model. They are focused not only on benefits but also on added value, quality, social and environment impact, while men entrepreneurs are traditionally focused on maximizing financial benefits that can be obtained (Fernandez et al., 2021).

After conducting factor analysis of the characteristics of women entrepreneurs and men entrepreneurs, and the division into three factors in women and three factors in men, ANOVA analysis of the obtained data was performed (Table 6). By conducting the analysis of variance, as a parametric statistical tool, we wanted to check whether the factors or characteristics of women and men entrepreneurs differ with regard to certain demographic variables. Again, in the categories of gender, household income and the scientific field of study, there are no statistically significant differences, so the results are not shown.

**Table 6 Testing the difference between the arithmetic means of factors for the characteristics of women and men entrepreneurs with respect to the area**

| Characteristics | Where are you from? |       |                    |       |                    |       | F-ratio | p       |
|-----------------|---------------------|-------|--------------------|-------|--------------------|-------|---------|---------|
|                 | Urban               |       | Suburban           |       | Rural              |       |         |         |
|                 | M                   | SD    | M                  | SD    | M                  | SD    |         |         |
| Factor 1 (W)    | 3.810 <sup>a</sup>  | 0.629 | 3.779 <sup>b</sup> | 0.630 | 3.917 <sup>a</sup> | 0.588 | 4.895   | 0.008** |
| Factor 2 (W)    | 3.660 <sup>a</sup>  | 0.586 | 3.523 <sup>b</sup> | 0.695 | 3.666 <sup>a</sup> | 0.703 | 3.256   | 0.039*  |
| Factor 3 (W)    | 3.845 <sup>a</sup>  | 0.612 | 3.795 <sup>b</sup> | 0.660 | 3.939 <sup>a</sup> | 0.566 | 4.598   | 0.010*  |
| Factor 1 (M)    | 3.900               | 0.504 | 3.803              | 0.632 | 3.865              | 0.579 | 2.009   | 0.135   |
| Factor 2 (M)    | 3.530               | 0.541 | 3.529              | 0.521 | 3.574              | 0.567 | 0.889   | 0.411   |
| Factor 3 (M)    | 3.858               | 0.511 | 3.843              | 0.591 | 3.877              | 0.555 | 0.275   | 0.760   |

Note: For the purpose of determining the difference between the arithmetic means of the claims with respect to the category of the area, simple analysis of variance - ANOVA (\*p < 0.05; \*\* p < 0.01), df = 2 was used.

Source: Authors' research

Statistically significant differences exist again in the categories of responses provided by urban and rural populations. Those who come from rural areas at-

tribute work skills more to women entrepreneurs (F = 4.895, df = 2, p < 0.008), the characteristics of successful women entrepreneurs to women entre-

preneurs ( $F = 3.256$ ,  $df = 2$ ,  $p < 0.039$ ) and intrapsychic traits to women entrepreneurs ( $F = 4.598$ ,  $df = 2$ ,  $p < 0.010$ ).

## 5. Conclusion

Although the characteristics of women entrepreneurs and men entrepreneurs are comparatively similar, the noted difference may lead to a completely different type of management. Empathy, organisation, intuition, patience, diligence, respect for other people's opinions, communication skills, creativity, generosity, and loyalty in women entrepreneurs, and self-confidence, stability, risk-taking, financial stability, experience, leadership, and independence in men entrepreneurs can lead to different ways of starting and running a business, achieving different strategic goals, different ways of negotiating, and a different view of economic performance of the business.

A similar situation is also observed with the extracted factors. The list of characteristics according to factors of work skills, traits of successful entrepreneurs and intrapsychic traits is quite similar, and there are basic differences in the stability, ambition, independence, and conflict variables. Stability is a variable that is attributed to men as an inherited trait, while for women it is a skill essential to work. Ambition is considered to be an intrapsychic trait in women, while in men, along with independence and conflict, it is a characteristic of a successful entrepreneur. If we look at the strength of the participation of some variables in the percentage of explanation of the variance of the above factors, women entrepreneurs and men entrepreneurs are distinguished by four different variables. For women, these are teamwork, respect for other people's opinions, generosity and patience, while for men, these are leadership, independence, experience and financial stability.

As this research was focused on a specific group according to age and education, which largely confirmed the views and results of research presented in the theoretical part, the research results are a useful foundation for conducting comprehensive research on the state level of the Republic of Croatia, with particular emphasis on active women entrepreneurs and men entrepreneurs.

It should be noted that so far, at least in the national context, empirical research on the characteristics of men and women entrepreneurs has not been con-

ducted. The focus was mainly on theoretical views of women's entrepreneurship. This fact is the fundamental contribution of this paper. The previously mentioned lack of relevant research due to the impossibility of comparison with previous research is a limitation of this research. Another limitation of the research is the sample made up of the student population. It is indisputable that their attitudes and opinions are different from the attitudes of the population that does not have a university degree, so the results cannot be generalised to the entire population. They may also differ from the opinions of women and men entrepreneurs.

Future research should be based on the sample of women and men entrepreneurs in Croatia. There is also a need for continuous longitudinal research that would show trends in respondent perceptions. Qualitative research could also go deeper into the perception of respondents.

Support of local, regional and national government and policymakers through their coordinated and continuous activities is crucial. A properly set and applied policy is necessary for creating a long-term strategy for women's entrepreneurship, especially in rural areas, sensitizing the public about this topic, networking women entrepreneurs at the regional and national levels, creating financing programs for women entrepreneurs, providing support for family life and child care, and encouraging quality programs aimed at strengthening entrepreneurial activity in rural areas through counselling, training and mentoring.

The biggest surprise of the research is the absence of statistically significant differences with regard to gender and household income in attitudes towards characteristics, but also when comparing the extracted factors, i.e. the existence of a statistically significant difference in the category of the area. Positive trends in thinking about women's entrepreneurship in rural areas are very interesting and promising. Whether they are a cornerstone that will ultimately enable a reduction in the women's unemployment rate in rural areas and thus put women in a better position and give them the opportunity to participate in overall economic growth and development remains to be seen. But most importantly, there exists the valuing of women as capable entrepreneurs with a combination of characteristic work skills, performance features and intrapsychic traits.

## REFERENCES

1. 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. <https://doi.org/10.1080/13545700601184831>
2. Akehurst, G., Simarro, E. & Mas-Tur, A. (2012). Women entrepreneurship in small service firms: motivations, barriers and performance. *The Service Industries Journal*, 32(15), 2489-2505. <https://doi.org/10.1080/02642069.2012.677834>
3. Altan-Olcay, Ö. (2014). Entrepreneurial Subjectivities and Gendered Complexities: Neoliberal Citizenship in Turkey. *Feminist Economics*, 20(4), 235-259. <https://doi.org/10.1080/13545701.2014.950978>
4. Bárcena-Martín, E. & Moro-Egido, A. I. (2013). Gender and Poverty Risk in Europe. *Feminist Economics*, 19(2), 69-99. <https://doi.org/10.1080/13545701.2013.771815>
5. Botric, V. (2012). Regional Differences in Self-Employment: Evidence from Croatia. *Economic Research*, 25(1), 243-266. <https://doi.org/10.1080/1331677X.2012.11517564>
6. Carter, S. & Marlow, S. (2007). Female entrepreneurship: Theoretical perspectives and empirical evidence. In Carter, S. L. et al. (Eds.), *Female Entrepreneurship: Implications for Education, Training and Policy* (pp. 11-36). Routledge.
7. Díaz García, M. & Welter, F. (2011). Gender identities and practices: Interpreting women entrepreneurs' narratives. *International Small Business Journal: Researching Entrepreneurship*, 31(4), 384-404. <https://doi.org/10.1177/0266242611422829>
8. Dodescu, A., Bădulescu, A., Giurgiu, A. & Pop-Cohuț, I. (2011). Women Entrepreneurship in the Western Romania. Research Results and Policy Recommendations. *Theoretical and Applied Economics*, 18(1), 25-48.
9. Fernández, M. B., García-Centeno, M. C. & Calderón Patier, C. (2021). Women Sustainable Entrepreneurship: Review and Research Agenda. *Sustainability*, 13(21), 12047. <https://doi.org/10.3390/su132112047>
10. Fulgosi, A. (1988). *Faktorska analiza*. Školska knjiga.
11. Fosić, I., Kristić, J. & Trusić, A. (2017). Motivational factors: Drivers behind women entrepreneurs' decision to start an entrepreneurial venture in Croatia. *Scientific Annals of Economics and Business*, 64(3), 339-357. <https://doi.org/10.1515/saeb-2017-0022>
12. Gelo, J., Smolić, Š. & Strmota, M. (2011). Socio-Demographic Determinants of Female Employment in Croatia. *Društvena istraživanja: časopis za opća društvena pitanja*, 20(1), 69-88. <https://doi.org/10.5559/di.20.1.04>
13. Gentry, W. A., Booysen, L., Hannum, K. M. & Weber, T. J. (2010). Leadership responses to a conflict of gender-based tension: A comparison of responses between men and women in the US and South Africa. *International Journal of Cross Cultural Management*, 10(3), 285-301. <https://doi.org/10.1177/1470595810384588>
14. Global Entrepreneurship Monitor (2017). *GEM Croatia 2017*. <http://www.cepor.hr/gem-global-entrepreneurship-monitor>
15. Global Entrepreneurship Monitor (2020). *GEM Croatia 2019-2020*. <http://www.cepor.hr/gem-global-entrepreneurship-monitor>
16. Global Entrepreneurship Monitor (2021). *Global Report 2020-2021*. <http://www.gemconsortium.org/report>
17. Gramm, V., Dalla Torre, C. & Membretti, A. (2020). Farms in Progress-Providing Childcare Services as a Means of Empowering Women Farmers in South Tyrol, Italy. *Sustainability*, 12(2), 467. <https://doi.org/10.3390/su12020467>
18. Gundry, L. K., Ben-Yoseph, M. & Posig, M. (2002). Contemporary perspectives on women's entrepreneurship: A review and strategic recommendations. *Journal of Enterprising Culture*, 10(1), 67-86. <https://doi.org/10.1142/S0218495802000141>

19. Jalbert, S. E. (2000). *Women Entrepreneurs in the Global Economy*. <https://numerons.files.wordpress.com/2012/04/17women-entrepreneurs-in-the-global-economy.pdf>
20. Kristić, J. & Deže, J. (2011). Women entrepreneurship: Reality or just futurity?. In Šundalić, A. et al. (Eds.). *Proceedings of the 3rd scientific conference Globalization and regional identity* (pp. 207-216). Osijek: Faculty of Economics in Osijek.
21. Kristić, J., Deže, J. & Fosić, I. (2016). Obstacles and reasons for initiation of the entrepreneurial activities of rural women. In Šundalić, A. et al. (Eds.). *Proceedings of the 5th scientific conference Globalization and regional identity* (pp. 222-234). Osijek: Faculty of Agriculture in Osijek, Faculty of Economics in Osijek & Department of Cultural Studies.
22. Kristić, J., Deže, J., Fosić, I. & Crnčan, A. (2018). Attitudes about entrepreneurial activity of women and men with regard to selected demographic variables. *Agroeconomia Croatica*, 8(1), 23-32.
23. Martín-Ugedo, J. F. & Mínguez-Vera, A. (2014). Firm Performance and Women on the Board: Evidence from Spanish Small and Medium-Sized Enterprises. *Feminist Economics*, 20(3), 136-162. <https://doi.org/10.1080/13545701.2014.895404>
24. Meler, M. (2005). *Osnove marketinga*. Faculty of Economics in Osijek.
25. Miner, J. B. (1997). The Expanded Horizon for Achieving Entrepreneurial Success. *Organizational Dynamics*, 25(3), 54-67. [https://doi.org/10.1016/S0090-2616\(97\)90047-4](https://doi.org/10.1016/S0090-2616(97)90047-4)
26. Mirchandani, K. (1999). Feminist Insight on Gendered Work: New Directions in Research on Women and Entrepreneurship. *Gender, Work & Organization*, 6(4), 224-235. <https://doi.org/10.1111/1468-0432.00085>
27. Munshi, S., Munshi, A. & Singh, V. P. (2011). A Study on Trends Visible in Women Entrepreneur in India and Globally. *Asia-Pacific Journal of Management Research and Innovation*, 7(3), 155-166. <https://doi.org/10.1177/097324701100700314>
28. Nandamuri, P. & Gowthami, C. (2013). Entrepreneurial orientation and household income - A correlation analysis. *Asia Pacific Journal of Management and Entrepreneurship*, 2(1), 101-122.
29. Rada-Florina, H., Simona, S. & Zima, L. A. (2009). Entrepreneurship and female entrepreneurship in Maramureş County. *The Annals of the University of Oradea - Economic Sciences*, 4(1), 280-286.
30. Sharma, A., Dua, S. & Hatwal, V. (2012). Micro Enterprise Development and Rural Women Entrepreneurship: Way for Economic Empowerment. *A Journal of Economics and Management*, 1(6), 114-127.
31. Sidhu, K. & Kaur, S. (2006). Development of Entrepreneurship among Rural Women. *Journal of Social Sciences*, 13(2), 147-149. <https://doi.org/10.1080/09718923.2006.11892543>
32. Stefan, D., Vasile, V., Oltean, A., Comes, C. A., Stefan, A. B., Ciucan-Rusu, L., Bunduchi, E., Popa, M. A. & Timus, M. (2021). Women Entrepreneurship and Sustainable Business Development: Key Findings from a SWOT-AHP Analysis. *Sustainability*, 13(9), 5298. <https://doi.org/10.3390/su13095298>
33. Tan, J. (2008). Breaking the 'Bamboo Curtain' and the 'Glass Ceiling': The Experience of Women Entrepreneurs in High-Tech Industries in an Emerging Market. *Journal of Business Ethics*, 80(3), 547-564. <https://doi.org/10.1007/s10551-007-9454-9>
34. Vrdoljak Raguž, I. (2020). Women entrepreneurship in the Republic of Croatia. *Dubrovnik International Economic Meeting*, 5(1), 143-149.
35. Vuk, B. & Krolo Crvelin, A. (2006). Dva pogleda na žensko poduzetništvo. In Kuvačić, N. & Horvat, Đ. (Eds.), *Primijenjeno poduzetništvo – zbirka tekstova* (pp. 138-149). Beretin d.o.o. & Cera Prom d.o.o.
36. Wagner, J. (2004). What a Difference a Y Makes - Female and Male Nascent Entrepreneurs in Germany. *Small Business Economics*, 28(1), 1-21. <https://doi.org/10.1007/s11187-005-0259-x>
37. Watson, J. & Newby, R. (2007). Gender differences in the goals of owner-operated SMEs. In Carter, N. M. et al. (Eds.), *Female Entrepreneurship: Implications for Education, Training and Policy* (pp. 37-68). Routledge.
38. Zirdum, G. & Cvitanović, V. (2017). Barriers and Opportunities for Developing Women's Entrepreneurship in the Republic of Croatia. *Education for Entrepreneurship*, 7(2), 205-222.