



Article Do Emotional Competencies Influence Students' Entrepreneurial Intentions?

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Abstract: Entrepreneurship is one of the critical determinants of economic development. In this research area, many scientists are trying to identify the competencies that influence later decisions about starting a business—so-called entrepreneurial intentions. The subject of the research contained in this article is the relationship between emotional competencies and declared entrepreneurial intentions, which, according to the authors, constitute an added value supporting research in the field of education for entrepreneurship. The article contributes to developing behavioral theories and solves the problem of identifying essential competencies to start a business. The survey was conducted among 209 students at Cracow University of Economics. Based on a binomial logistic regression model applied in the study, a statistically significant correlation between self-awareness and self-motivation and the students' entrepreneurial intentions was demonstrated. In contrast, the statistically significant influence of self-regulation, empathy, and social skills on the formation of these intentions was not confirmed. Therefore, to shape entrepreneurial intentions, the education process should support developing these two key factors: self-awareness and self-motivation of young people. Decision-makers should formulate the syllabuses to develop the students' emotional competencies, which, in turn, are a source of entrepreneurial intentions.

Keywords: entrepreneurial intentions; emotional competencies; behavioral competencies; entrepreneurial education

1. Introduction

Entrepreneurship is one of the critical determinants of the economic growth of countries [1–3]. It is assumed that nearly 99.8% of the total number of enterprises in the European Union are micro, small, and medium-sized, which employ just over 66% of productive-age people and generate 57% of added value in the EU economy [4]. Due to the dynamic nature of economic changes globally, it is crucial to support education in entrepreneurship, which must meet new challenges [5], especially in identifying and developing essential skills and attitudes of future managers [6]. The number of publications published in recent years shows that entrepreneurship education is one of the fastest-growing research areas [7–13]. In this research area, many scientists are trying to identify the competencies that influence later decisions about starting a business—the so-called entrepreneurial intentions (It is worth mentioning here that Ajzen [14,15] was the forerunner of entrepreneurial intentions research) [16–19]. Their characteristic feature is the fact that they must meet the expectations of a dynamically developing market.

Many scientific publications draw attention to the fact that a comprehensive educational process, the aim of which should primarily be to shape entrepreneurial attitudes, is a determinant of the proper participation of individuals in social and economic life and is essential for the development of the competitiveness of enterprises and the economy [20–22].

The topics we address fit into the current research on entrepreneurship education, which indirectly links to almost all of the new 2013 Agenda's Sustainable Development Goals of the United Nations (SDG) [23,24]. In the face of persistently high unemployment levels among young people [25], it is essential to proactively support actions to increase (self-)employment among these people by undertaking broadly defined inclusive actions. In this way, at least two out of 17 goals of the SDG can be achieved, mainly goal 4 of the SDG relating to ensuring inclusive and equitable education by promoting lifelong learning opportunities, and goal 8 of the SDG relating to the promotion of sustainable, full, and productive employment and decent work for all [23]. Education for sustainable development should aim at developing competencies that mainly enable individuals to reflect on their own activities. The UNESCO report entitled "Education for sustainable development goals. Learning objectives" lists eight critical competencies for sustainability [26]: (1) systems thinking competency, (2) anticipatory competency, (3) normative competency, (4) strategic competency, and (8) integrated problem-solving competency. This type of competence also includes emotional competence, which is known as a set of behaviors that individuals use to recognize and manage their own and others' emotions.

In this study, we examine whether emotional competencies impact the entrepreneurial intentions of students. The central premise leading us to take up this topic is that our emotions influence our behaviors and decisions [27] and, consequently, our propensity to start a business [28–30]. The article fills the research gap in the broadly defined psychology of entrepreneurship [31], derived from cognitive psychology [32], which is currently one of the most dynamically developing research areas [8,19,28,29]. Unfortunately, relatively few researchers have investigated the relationship between students' emotional competencies and their entrepreneurial intentions. So far, this topic has developed in the current of Ajzen's theory [14,15], but not from the emotional competencies viewpoint. The article will enhance our understanding of students' emotional characteristics and critical competencies important in entrepreneurial inclinations. We expect to provide a new perspective on entrepreneurial education. Therefore, we set the article's aim to empirically verify the impact of emotional competence on students' entrepreneurial intentions.

The article consists of two parts: theoretical and empirical. In the theoretical part, based on a critical analysis of the literature, we present the relationship between emotional competencies and students' sustainable entrepreneurial intentions. On their basis, we derive research hypotheses. On the other hand, in the empirical part, we use logistic regression to statistically confirm the interdependence between Goleman's five types of emotional competencies [33] and students' willingness to start a business in the future. The calculations were based on a sample of 209 students of International Economic Relations at Cracow University of Economics.

2. Theoretical Background and Literature Review

Competence is usually described as a combination of three essential elements: knowledge, skills, and attitudes [34]. Similarly, Hayton and Kelley [35], based on the competence-based approach, propose a definition of competence as an aggregate of specific knowledge, skills, and personality. They point out that some researchers treat them as equivalent to such terms as ability, skills, and knowledge, thus omitting attitudes. In turn, Boyatzis [36] understands competence as either capability or ability. Others, such as MacLean and Scott [37], recall the definition proposed by the ASTD (American Society for Training and Development) that competence focuses on the skills, knowledge, abilities, and behaviors needed to succeed at work.

In the literature on the subject, we are relatively often dealing with behavioral competencies, which are defined as "a set of related but different sets of behavior organized around an underlying construct called the 'intent'" [36]. As confirmed by many researchers, these competencies significantly impact individuals' entrepreneurial intentions [9,11,38–40]. For example, Sánchez [39] lists self-efficacy (1), proactiveness (2), and risk-taking propensity (3) among its behavioral competencies. His study, based on a sample of 864 students, confirmed the hypothesis that the greater the individual's behavioral

competencies, the higher their entrepreneurial intentions are. The behavioral competence defined by the researcher indirectly derives from Ajzen's Theory of Planned Behavior [15], according to which the factors influencing an individual's entrepreneurial intentions are cognitive: entrepreneurial attitudes (1), subjective norms (2), and perceived behavioral control (According to Ajzen's Theory of Planned Behavior [15], the perceived behavioral control is based on Bandura's Self-Efficacy Theory [41]) (3). Cortellazzo, Bonesso, and Gerli [42] promote a relatively interesting division of behavioral competencies. Researchers have grouped behavioral competencies into those related to (1) awareness, (2) action, (3) social, (4) cognitive, (5) exploratory, and (6) strategic, which can be considered a source of entrepreneurial intentions.

Since relatively recently, some researchers have focused their attention on explaining the role of emotional competencies as a subgroup of behavioral competencies in shaping entrepreneurial intentions. These competencies are usually understood as interrelated sets of behaviors that individuals use to recognize and manage their own emotions and others' emotions [43]. However, it might seem to some that the definition of emotional competence may coincide with emotional intelligence. In contrast to the latter, emotional competence is a measurable skill [33], so it can be taught and learned and consequently also influence individuals' entrepreneurial intentions [29].

Individuals with developed emotional competence deal with stress much better than others [44,45], and consequently, it may result in them having higher entrepreneurial intentions. For instance, Zampetakis et al. [28] note that emotional competence influences entrepreneurial intentions indirectly through students' entrepreneurial attitudes. In turn, studies by Miao et al. [46] show that emotional competence is positively linked to individuals' entrepreneurial intentions, except that this relationship is more potent in long-term-oriented cultures.

Emotional competencies are most often divided into two groups: personal competencies, which determine the level of ability to cope with ourselves, and social competencies, which determine the level of ability to cope with others. Personal competencies include self-awareness, self-regulation, and motivation, while empathy and social skills are social competence subgroups [33].

Higher self-awareness, and thus the ability to become an object of personal attention [47], may be one of the sources of students' higher entrepreneurial intentions [43,48]. Thanks to the ability to identify their own weaknesses and advantages, draw conclusions from their experiences, or believe in their own competencies, they feel that they can take up the challenge of competitiveness in the business world. Nevertheless, van Ewijk and Al-Aomar [49] stated that the research should be deepened. Therefore, we propose the following research hypothesis:

Hypothesis 1 (H1). The higher self-awareness is, the higher students' entrepreneurial intentions are.

On the other hand, self-regulation refers to controlling one's own internal states, impulses, and possibilities [33]. In other words, it is the ability of individuals to anticipate desirable future events based on their past knowledge and experience and to monitor and guide their behavior in order to realize their vision [50]. The responsibility for one's own actions, the ability to act efficiently due to good self-organization of work, and being flexible and able to adapt quickly to changing conditions are essential if we are thinking about achieving business success. The feeling of full control over one's own activity is also fundamental, even in the face of dynamic changes taking place in the company's environment.

Some researchers see self-regulation as a source of entrepreneurial intentions [51], which is why we propose the following hypothesis:

Hypothesis 2 (H2). The higher self-regulation is, the higher students' entrepreneurial intentions are.

Many researchers believe that self-motivation is an essential (if not the most important) factor resulting in higher entrepreneurial intentions [52–55]. According to Goleman [33], it belongs to the so-called personal competence, and defines it as emotional inclinations that lead to new goals or

facilitate achievement. Personalities such as consistency in action and pursuit of a goal despite the difficulties encountered, new challenges, and additional goals to achieve, and faith in success that is stronger than fear of failure are characteristic of leaders who become critical drivers for the whole organization. The entrepreneur's own motivation will also be transferred to the other organization members and thus constitute one of the company's critical determinants.

Therefore, the following hypothesis is proposed:

Hypothesis 3 (H3). The higher self-motivation is, the higher students' entrepreneurial intentions are.

Empathy is usually defined as the ability to understand the views [56], feelings, needs, and concerns of others [33]. The ability to listen to others and understand their specific views, expectations, and problems, sometimes different from their own, is crucial in managing a team of employees and gaining new clients. Identifying and correctly analyzing processes in the entrepreneur's social environment is also useful in conducting business activity.

Many studies in the literature on the subject show the positive influence of empathy on entrepreneurial intentions [56–58]. Therefore, it can be assumed that:

Hypothesis 4 (H4). The higher empathy is, the higher students' entrepreneurial intentions are.

As Fagoulis and Phillips [59] note, social skills are not easy to define because they can be interpreted differently. First of all, they can be understood as the ability to evoke desired reactions in others [33,60]. People who are perceived positively in their own environment can easily acquire others to implement their own plans. Social skills also allow for better communication with the business environment or effective negotiation of business transactions. People with developed social skills, e.g., through active participation in informal networking processes, learn and acquire new knowledge and useful information, which they can then use in their business activities. Above all, these competencies also allow for the more accessible establishment of personal relationships that are useful in any field of business activity (e.g., acquiring investors, cooperators, lobbyists, or the favors of members of government administration).

Some researchers believe that social skills can be a source of entrepreneurial intentions [61]. Therefore, the following hypothesis is worth proposing:

Hypothesis 5 (H5). The higher social skills are, the higher students' entrepreneurial intentions are.

In order to verify the above hypotheses, we created the logit model. All calculations were performed in IBM[®] SPSS[®] Statistics 26.

3. Materials and Methods

3.1. Sample and Data Collection

The study included 209 students studying international economic relations at the Cracow University of Economics. The choice of course was not accidental. Similarly to Li and Wu [62], we wanted to check the interdependence among the students participating in classes whose syllabuses mainly included subjects in broadly understood (international) entrepreneurship. Based on a previously prepared questionnaire (see Appendix A), we asked 76 anonymous questions about previously defined emotional competencies and entrepreneurial intentions. Additionally, we included four questions associated with basic metrics (gender, forms of studies, city of origin, and family patterns).

The survey was conducted in the first half of October 2020 with our control and other academic teachers (coordinators) among students in the second and third years of undergraduate studies and fourth and fifth years of graduate studies. In the survey, we omitted first-year students because they did not have the opportunity to participate in any entrepreneurship course.

3.2. Research Model

In this research, we applied a binomial logistic regression model—also called the logit model. It is used to explain the dummy qualitative variable Y depending on the level of independent (exogenous) variables $X_1, X_2, ..., X_k$, which, in turn, can be qualitative or quantitative. Moreover, the logistic regression model is recommended when the assumption of normality distribution of variables may not be met [63]. The dependent variable is a dummy (dichotomous) variable [64]:

$$Y = \begin{cases} 1, & \text{phenomenon occurs} \\ 0, & \text{otherwise} \end{cases}$$
(1)

In the logistic regression model, the critical function is known as logit and has the following form [65,66]:

$$\ln\left(\frac{\pi}{1-\pi}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_k x_k \tag{2}$$

Furthermore, the logistic regression model can be written in the following form:

$$\pi = \frac{\exp\left(\beta_0 + \sum_{i=1}^k \beta_i x_i\right)}{1 + \exp\left(\beta_0 + \sum_{i=1}^k \beta_i x_i\right)} \tag{3}$$

The estimation of model parameters β_1 , β_2 , ..., β_k is usually performed using the maximum likelihood method. The logarithm of the likelihood function with model parameters is maximized using iterative numerical procedures [64].

The proposed research model (see Figure 1) suggests a positive relationship between the five main types of emotional competence and students' entrepreneurial intentions. It means that individuals with higher self-awareness (H1), self-regulation (H2), self-motivation (H3), empathy (H4), and higher social skills (H5) are more likely to start a business in the future.



Figure 1. Proposed research model.

In the research model, we used a total of 10 variables (see Table 1), where the dependent variable represented students' entrepreneurial intentions. In contrast, among independent variables, we distinguished five emotional competencies of Goleman. Additionally, we included four control variables: gender, form of studies, city of origin, and family patterns. The research model consists of nominal (dummy) variables and ordinal variables whereby we measured, among other things, emotional competence on a 5-point Likert scale.

In the study, 209 students participated altogether. A total of 54.1% were women and 45.9% were men (see Tables 2 and 3). The vast majority of the respondents were full-time students (88.5%), and only some were part-time students (11.5%). In the study, approximately every third student came from a

city with at least 150,000 inhabitants. Moreover, most of the examined students (51.2%) confirmed that at least one parent was or still is self-employed.

ID	Variables	Measurement
i1	Entrepreneurial intentions	Dummy (1 = yes, 0 = no)
c1	Gender	Dummy $(1 = man, 0 = woman)$
c2	Form of studies	Dummy (1 = part-time, 0 = full-time)
c3	City of origin	(1 = less than 1000 inhabitants, 2 = at least 1000 but fewer than 10,000 inhabitants, 3 = at least 10,000 but fewer than 50,000 inhabitants, 4 = at least 50,000 but fewer than 150,000 inhabitants, 5 = at least 150,000 inhabitants)
c4	Family patterns	Dummy (1 = parents' self-employment background, 0 = parents' self-employment background)
d1	Self-awareness	
d2	Self-regulation	
d3	Self-Motivation	5-point Likert scale
d4	Empathy	
d5	Social skills	

Table 1.	List of	variables	used ir	n the a	analysis	(N = 209).
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Source: own elaboration based on Goleman [33].

Table 2. Stu	dents' profile.
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Gender (c1)	Frequency	Percent
Male	96	45.9%
Female	113	54.1%
Form of studies (c2)		
Full-time	185	88.5%
Part-time	24	11.5%
City of origin (c3)		
less than 1000 inhabitants	24	11.5%
at least 1000 but fewer than 10,000 inhabitants	44	21.0%
at least 10,000 but fewer than 50,000 inhabitants	40	19.1%
at least 50,000, but fewer than 150,000 inhabitants	25	12.0%
at least 150,000 inhabitants	76	36.4%
Family pattern (c4) *		
Yes	107	51.2%
No	102	48.8%

* Was or is at least one parent self-employed? (Yes/No). Source: own elaboration.

Based on Table 4, it can be observed that there is no strong correlation between the independent variables used in the analysis. The highest correlation occurs between variables describing motivation and social skills (r = -0.47). In contrast, the lowest one occurs between variables representing gender and self-awareness (r = -0.01) and form of studies and self-regulation (r = -0.01).

Category	ID	Mean	SD	Min	Max
	c1	0.46	0.50	0.00	1.00
	c2	0.89	0.32	0.00	1.00
Control variables	c3	3.41	1.45	1.00	5.00
	c4	0.51	0.50	0.00	1.00
	d1	4.01	0.49	2.33	5.00
	d2	3.90	0.45	2.50	5.00
Independent variables	d3	3.65	0.54	1.67	5.00
	d4	4.20	0.45	2.80	5.00
	d5	3.89	0.56	1.50	5.00

Table 3. Summary statistic.

Source: own elaboration.

	c1	c2	c3	c4	d1	d2	d3	d 4	d5
c1	1.00								
c2	-0.11	1.00							
c3	-0.09	-0.14	1.00						
c4	0.04	-0.10	-0.14	1.00					
d1	-0.01	-0.09	0.05	-0.02	1.00				
d2	0.21	-0.01	0.05	0.04	-0.28	1.00			
d3	0.10	-0.16	-0.06	-0.04	-0.08	-0.20	1.00		
d4	0.21	0.10	-0.11	0.02	-0.04	-0.23	0.11	1.00	
d5	-0.21	0.13	0.03	-0.08	-0.38	-0.03	-0.47	-0.44	1.00

Table 4. Correlation matrix.

Source: own elaboration.

3.3. Dependent Variable

In the proposed model (see Figure 1), the dependent variable was entrepreneurial intention, which was also defined as the propensity to be an entrepreneur during or after studies [67]. The question we asked the students was: Are you considering starting your own business during or soon after your studies? This variable was the dummy, i.e., it assumed values of 0 and 1. If the student answered positively, we assigned the number 1, while if the student negated, then we assigned the number 0.

3.4. Independent Variable

The study included five categories of independent variables describing emotional competence (see Table 1), which were assigned to two groups: personal competencies and social competencies. The former relates to how we manage our relationships with others [33]. The first category of emotional competence included (1) self-awareness, which distinguishes (1a) emotional awareness, (1b) accurate self-assessment, and (1c) self-confidence. The second category of variables was known as (2) self-regulation. It consists of (2a) self-control, (2b) trustworthiness, (2c) conscientiousness, (2d) adaptability, and (2e) and innovation. The third category of emotional competence, called (3) motivation, included (3a) achievement drive, (3b) commitment, (3c) initiative, and (3d) optimism. The next category of variables was (4) empathy, consisting of (4a) understanding others, (4b) developing others, (4c) service orientation, (4d) leveraging diversity, and (4e) political awareness. Finally, the last category of emotional competence, called (5) social skills, included (5a) influence, (5b) communication, (5c) conflict management, (5d) leadership, (5e) change catalyst, (5f) building bonds, (5g) collaboration and cooperation, and (5h) team capabilities.

Each of the 25 sub-independent variables (1a–5h) included between 3 and 4 questions and was evaluated using a 5-point Likert scale [68], i.e., (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) strongly agree (the questionnaire together with the questions can be found in

Appendix A). In the next step, we calculated the average for each subcategory and then the average for each of the main categories of variables (i.e., the five emotional competencies of Goleman).

3.5. Control Variable

In the study, we included several control variables that could potentially affect the results. The first control was gender (1 = male, 0 = female). Zhang et al. [69] believe that women generally have lower entrepreneurial intentions than men. Another control variable was form of study (1 = part-time, 0 =full-time), as we felt that part-time students had higher entrepreneurial intentions than full-time students. This is consistent with the research of Sandhu et al. [70]. We also controlled students' city of origin because we thought that students coming from larger cities would be more inclined toward entrepreneurship (1 = fewer than 1000 inhabitants, 2 = at least 1000 but fewer than 10,000 inhabitants, 3 = at least 10,000 but fewer than 50,000 inhabitants, 4 = at least 50,000 but fewer than 150,000 inhabitants, 5 = at least 150,000 inhabitants). The last control variable was family patterns, which should be understood as if at least one parent was/is self-employed (1= at least one parent was/is self-employed, 0 = otherwise).

4. Results and Discussion

A logistic regression model with good fit should mainly meet two criteria. First, the likelihood ratio test, estimated with the maximum probability, should be statistically significant. Second, the Hosmer–Lemeshow test should be statistically insignificant [63]. In the binomial logistic regression model, the coefficient of determination R2 is not an adequate measure of the quality of model adjustment to variables; therefore, it is not recommended to be applied [71]. Some researchers suggest using the Cox–Snell Pseudo R2 or Nagelkerke Pseudo R2 [72], which for the first model were 0.205 and 0.279, respectively. In the first logistic regression model, the likelihood test was statistically significant (chi2 = 47.964, df = 9, p = 0.000), which was the desired result. In addition, the Hosmer–Lemeshow test was statistically insignificant (chi2 = 11.898, df = 8, p = 0.156)—see Table 5.

Type of Test	Model Chi-Square		df	Sig
	Model 1	47.964	9	0.000
Likelihood ratio test	Model 2	35.091	7	0.000
	Model 3	47.203	8	0.000
	Model 1	11.898	8	0.156
Hosmer-Lemeshow test	Model 2	10.466	8	0.234
	Model 3	11.807	8	0.160

Table 5. Logistic model verification.

Source: own elaboration.

Four control variables were included in the research model, one of which was statistically significant (see Table 6). In the study, we can note that gender is an important factor in predicting entrepreneurial intentions. The results of our research confirm that the likelihood of men having entrepreneurial intentions is 2.33 times higher than women (p = 0.017), which also seems to be confirmed by the research conducted by Grilo and Irigoyen [73]. In a given logistic regression model, the control variables comprised studies (p = 0.093) and city of origin (p = 0.099), but both at the level of significance p < 0.100. In terms of family patterns (p = 0.886), we could not demonstrate a correlation between someone from the immediate family running or having run their own business and students' entrepreneurial intentions.

Turning to the essential independent variables, we can see that the constructed logistic regression model confirmed the interdependence between self-awareness and students' entrepreneurial intentions (p = 0.046). It turns out that students with higher self-awareness are 2.8 times more likely to set up a business. This situation is similar to motivation. Motivated people are usually about six times more

likely to create a business in the future than those who are not. Therefore, we can confirm Hypotheses 1 and 3, i.e., students with higher self-awareness and motivation significantly influence higher inclination toward entrepreneurship. The logistic regression model did not confirm the statistical significance of self-regulation (p = 0.782), empathy (p = 0.989), or social skills (p = 0.077) as predictors of students' entrepreneurial intentions, hence hypotheses 2, 4, and 5 should be rejected.

Variables	Coefficient	Standard Error	Wald Test	Significance	Exp (Coeff.)
Gender	0.847	0.354	5.728	0.017	2.333
Form of studies	-0.984	0.585	2.828	0.093	0.374
City of origin	0.192	0.116	2.724	0.099	1.212
Family patterns	0.047	0.331	0.020	0.886	1.048
Self-awareness	1.015	0.509	3.972	0.046	2.759
Self-regulation	0.146	0.527	0.076	0.782	1.157
Motivation	1.797	0.503	12.790	0.000	6.033
Empathy	0.007	0.519	0.000	0.989	1.007
Social skills	-0.977	0.552	3.130	0.077	0.377
Constant	-7.018	2.050	11.723	0.001	0.001

 Table 6. Binomial logistic regression model 1 (dependent variables = entrepreneurial intentions).

Source: own elaboration.

Next we asked ourselves which competencies within self-awareness and motivation play a key role in explaining students' entrepreneurial intentions. We built two more logistic regression models (see Tables 7 and 8). Before starting the inference, we reassessed the quality of the variables' adjustment to the newly created models. As far as the likelihood ratio test was concerned, in both cases it turned out to be statistically significant (model 2: chi2 = 35.091, df = 7, p = 0.000; model 3: chi2 = 47.203, df = 8, p = 0.000) which was desirable in this case of analysis. In turn, the Hosmer–Lemeshow test proved to be statistically insignificant (model 2: chi2 = 10.466, df = 8, p = 0.234; model 3: chi2 = 11.807, df = 8, p = 0.16), which also confirms that both models can be examined.

 Table 7. Binomial logistic regression model 2 (dependent variables = entrepreneurial intentions).

Variables	Coeff.	SE	Wald	Sig	Exp (Coeff.)
Gender	0.652	0.321	4.131	0.042	1.920
Form of studies	-0.678	0.533	1.622	0.203	0.507
City of origin	0.235	0.112	4.400	0.036	1.265
Family patterns	0.046	0.322	0.020	0.887	1.047
Self–awareness					
Emotional awareness	-0.004	0.309	0.000	0.989	0.996
Accurate self-assessment	0.717	0.367	3.814	0.050	2.049
Self-confidence	0.612	0.242	6.409	0.011	1.844
Constant	-5.093	1.655	9.471	0.002	0.006

Source: own elaboration.

As for the second model of logistic regression (see Table 7), we noticed that within the framework of self-awareness, the key competencies were accurate self-assessment (p = 0.05) and self-confidence (p = 0.011). In our study, accurate self-assessment was understood as the ability to identify one's strengths and weaknesses and draw conclusions from one's own experience. Based on the second logistic regression model, we can observe that the likelihood of entrepreneurial intentions among students who can correctly self-assess is slightly more than two times higher than among those who have difficulty doing a self-assessment (p = 0.05). What is more, self-confidence is also essential, which increases 1.84 times the likelihood of higher willingness to start a business among the examined sample. The model did not confirmed the significance of emotional awareness for inclination toward entrepreneurship.

Variables	Coeff.	SE	Wald	Sig	Exp (Coeff.)
Gender	0.775	0.334	5.391	0.020	2.170
Form of studies	-0.917	0.581	2.487	0.115	0.400
City of origin	0.164	0.115	2.017	0.156	1.178
Family patterns	0.041	0.327	0.016	0.900	1.042
Motivation					
Achievement drive	0.418	0.275	2.314	0.128	1.519
Commitment	0.129	0.218	0.353	0.553	1.138
Initiative	0.865	0.276	9.800	0.002	2.376
Optimism	0.307	0.279	1.213	0.271	1.359
Constant	-5.754	1.389	17.151	0.000	0.003

 Table 8. Binomial logistic regression model 3 (dependent variables = entrepreneurial intentions).

Source: own elaboration.

Based on the third model of logistic regression (see Table 8), it can be seen that within the framework of motivation, a critical competence is an initiative (p = 0.002), which we understood, among other things, as the ability to use every opportunity and the ability to pursue goals. It turns out that there is a chance of entrepreneurial intention in students who show initiative. It is almost 2.4 times higher than among those who do not have such a competence.

This article contributes to essential insights into the relationship between emotional competencies and Economics students' entrepreneurial intentions. The results contributed to the confirmation of the two proposed hypotheses. Emotional competence, namely self-awareness and motivation, plays a vital role in predicting students' entrepreneurial intentions.

Considering the form of studies, the city of origin, and the family patterns as control variables, they are not significant predictors of entrepreneurial intentions. The case was different for gender. The studies confirmed that men are more likely to start a business than women. This result is consistent with studies by Zhang et al., who confirmed this correlation based on the results of surveys conducted among students at 10 Chinese universities [69]. Similar conclusions were also reached by Caliendo et al., who, based on surveys among German citizens, noted that women are less likely to set up a business because of their much higher aversion to risk than men [74]. However, studies by other scientists such as Georgescu and Herman do not support the thesis that gender is essential in explaining students' entrepreneurial intentions [25,75].

As far as self-awareness is concerned, our results confirm the first research hypothesis. It turns out that self-awareness and mostly accurate self-assessment and self-confidence increase the chances of students' entrepreneurial intentions. This fact is also consistent with the research of other scientists. For example, Archana et al. surveyed students of the postgraduate program in Management Studies in India, which confirmed that self-awareness is a statistically significant predictor of entrepreneurial intentions [48]. Auzoult et al. came to a similar conclusion and, based on 216 French students, confirmed the positive relationship between self-awareness and entrepreneurial intentions [76].

The research also showed statistical significance between self-motivation and students' entrepreneurial intentions (p = 0.000). More detailed research has shown that it is mainly due to this initiative (p = 0.002), which increases the likelihood of entrepreneurial intentions in students 2.38 times more than if they had not. Similar opinions are held by Fayolle et al. [55] and Giacomin et al. [77], who see motivation as a source of entrepreneurial intentions. A pretty interesting study confirming this dependence was conducted by Solesvik, who, based on the information obtained from 321 Ukrainian students, stated that higher entrepreneurial intentions result from a properly designed entrepreneurship course, which stimulates the internal motivation of the individual [78].

5. Conclusions and Implications

In the current considerations, relatively few researchers have explored entrepreneurship's inclination from the perspective of emotional competence [79], which has still not been sufficiently

investigated. Our research confirmed two of five hypotheses. In our study, self-awareness and self-motivation proved to be factors that play a crucial role in increasing the probability of the individuals' entrepreneurial intentions examined. This fact confirms previous studies by other authors. We can formulate a thesis that the individual elements examined in these two categories are characteristic of people with leadership tendencies who are ambitious, courageous in making decisions, well organized, and maintain control and composure even in challenging situations. These attributes are characteristic of leaders who prefer to lead than be submissive. This naturally increases their desire for professional fulfilment through their own business activities, where they will be their own superiors and decide on their own actions. However, this does not mean that the influence of other factors such as self-regulation, empathy, and social skills should be rejected. As it has been mentioned, these elements' influence on entrepreneurial intentions has been demonstrated in other authors' work, so these aspects should be further researched.

This study was created to find future entrepreneurial education directions that exogenously influence entrepreneurial competencies and intentions. First, the study contributes to the development of research on entrepreneurial competencies [80–83]. Second, the scientific work intended to prove that entrepreneurial intentions result from each individual's emotional side [43], which may consequently suggest that the syllabus of entrepreneurial courses stimulates the individual's cognitive processes. Third, the study contributes to the development of Ajzen's Theory of Planned Behavior [15].

Future research should generally focus on quantitative and qualitative verification of the impact of emotional competencies on inclination toward entrepreneurship. We suggest that researchers focus more on entrepreneurial education [84] and identify methods for sufficient self-awareness and self-motivation. It is also worth exploring the relationship between entrepreneurial intentions and individual emotional competencies, taking into account active and passive entrepreneurial education forms. Future research should also include students of Economics departments and non-Economics departments (e.g., technical, medical). Undoubtedly, the research should be conducted on a more extensive research sample than in this article.

As with all empirical studies, the current one is not free of limitations. First of all, the research sample included only 209 students of International Economic Relations at the Cracow University of Economics (Poland). Therefore, further research should also include other fields of study at various universities so that potential differences between students in terms of entrepreneurial intentions and emotional competencies can be found. Second, we conducted the study on an individual level [46], so in the future, it is also worthwhile to take into account the national level and to compare different countries with each other. The rationale for such analyses stems from the fact that the entrepreneurial process is multidimensional [85]. It is essential to consider the national context of entrepreneurship concerning the perception of business conditions. In the opinion of young Poles, Poland appears to be a country with many administrative and tax barriers, which may have a negative impact on students' entrepreneurial intentions. A very frequent reason for Polish students' unwillingness to start businesses is the relatively favorable labor market situation. This situation is caused by a high supply of jobs in many multinational corporations, which is even more noticeable in Cracow. We consider that caution in formulating far-reaching conclusions from the conducted research should also result from the fact that false answers are often found in surveys. These answers may sometimes result from the respondents' subconscious willingness to present themselves as better in their opinion, or even the lack of ability to make a reliable self-assessment of themselves. Such a situation may also influence the answers provided in our study. Among the factors influencing the respondents' answers, the authors also note that the survey was conducted during the COVID-19 pandemic, which significantly reduced the possibility of conducting business activity and the profits made from it, which could also affect the size of declared entrepreneurial intentions.

The conclusions of the study should serve the decision-makers formulating the syllabuses and the teachers implementing them [86,87]. We claim that supporting the development of entrepreneurship among young people should be placed primarily on developing emotional competencies, which are vital

to increasing entrepreneurial intentions [28–30,36,43,48,88]. It should be remembered that although human development lasts throughout life, the development of emotional competencies takes place to the greatest extent in the early stages of education [89]. Therefore, it is necessary to ensure that these competencies are properly stimulated at the primary education level. The promotion of entrepreneurial attitudes does not start with teaching economics and entrepreneurship, but, among other things, with the development of emotional competencies, which have been studied in this article. The next step should be the education concerning the use of previously built competencies in running a business.

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Appendix A

No	Questions	SD	D	Ν	Α	SA
	Self-Awareness					
1a.	I can recognize the emotions that I feel and why I feel them.	1	2	3	4	5
1a.	I am aware of the relationship between my feelings and what I think, do, and say.	1	2	3	4	5
1a.	I realize how my feelings affect my behavior.	1	2	3	4	5
1b.	I am aware of my strengths and weaknesses.	1	2	3	4	5
1b.	I can draw conclusions from my experience.	1	2	3	4	5
1b.	I can take a different viewpoint, always learn, and develop.	1	2	3	4	5
1b.	I can look at myself with humor and distance.	1	2	3	4	5
1c.	In day-to-day reality I am usually self-confident.	1	2	3	4	5
1c.	I can express unpopular views and defend in private what I think is right (even in public).	1	2	3	4	5
1c.	I can make good decisions despite pressure from others or unfavorable circumstances.	1	2	3	4	5
	Self-Regulation					
2a.	Usually, I can control negative feelings and emotions.	1	2	3	4	5
2a.	I can maintain a calm and positive attitude, even in the most challenging moments.	1	2	3	4	5
2a.	I can maintain my ability to think clearly and concentrate despite the pressure I am under.	1	2	3	4	5
2b.	I act ethically and denounce the unethical behavior of others.	1	2	3	4	5
2b.	I can admit my own mistakes.	1	2	3	4	5
2c.	I am well-organized.	1	2	3	4	5
2c.	I always perform my tasks and meet my obligations.	1	2	3	4	5
2c.	I always feel responsible for my own actions.	1	2	3	4	5

Table A1. Survey questionnaire (N = 209).

No	Questions	SD	D	Ν	A	SA
2d	I can quickly adapt my reaction and tactics to changing	1	2	3	4	5
2 u .	circumstances.	-	-	0	1	0
2d.	I can cope well with a variety of requirements and changing priorities.	1	2	3	4	5
2d.	I can quickly adapt my vision of events.	1	2	3	4	5
2e.	I consider myself to be a creative.	1	2	3	4	5
2e.	I can adapt my viewpoint to changing circumstances.	1	2	3	4	5
2e.	I like to be inspired by exciting ideas from various sources.	1	2	3	4	5
	Self-Motivation					
3a.	I am consequent in my pursuit of my goals.	1	2	3	4	5
3a.	I can set challenging goals and take carefully calculated risks.	1	2	3	4	5
3a.	I can find ways to do my job better.	1	2	3	4	5
3b.	I can sacrifice myself for the group against my own goals.	1	2	3	4	5
3b.	I can find a sense of direction in pursuing what the whole group is	1	2	3	4	5
3b.	When making a decision and making a choice I am driven by the central values of the group.	1	2	3	4	5
3c.	I can take advantage of every chance I get.	1	2	3	4	5
3c.	I strive for goals beyond what is required or expected of me.	1	2	3	4	5
3c.	I can fight the resistance of bureaucracy and sometimes bend the	1	2	3	4	5
	In reaching my goal I do not give in to even numerous obstacles and					
3d.	temporary failures	1	2	3	4	5
3d	Hope of success is more important to me than fear of failure	1	2	3	4	5
3d.	Failure is more often the result of my own faults and errors than	1	2	3	4	5
4 -	Empany	1	<u> </u>	2	4	
4a.	I can listen to others.	1	2	3	4	5
4a.	I can understand the viewpoint of others.	1	2	3	4	5
4a.	I can feel the needs and feelings of others.	T	2	3	4	5
4b.	As a supervisor I would be able to appreciate and reward the achievements of my subordinates appropriately.	1	2	3	4	5
						_
4b.	As a superior, I would be able to support the professional development of my subordinates actively.	1	2	3	4	5
4b. 4b.	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would some to develop their abilities	1 1	2 2	3 3	4	5 5
4b. 4b.	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt	1 1	2 2	3 3	4 4	5 5
4b. 4b. 4c.	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt my services or products to them.	1 1 1	2 2 2	3 3 3	4 4 4	5 5 5
4b. 4b. 4c. 4c.	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt my services or products to them. I would look for ways to increase customer satisfaction and loyalty to my company.	1 1 1 1	2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5
4b. 4b. 4c. 4c. 4c.	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt my services or products to them. I would look for ways to increase customer satisfaction and loyalty to my company. I would be able to pick up a different client's viewpoint and apply it to my own actions.	1 1 1 1	2 2 2 2 2	3 3 3 3 3	4 4 4 4	5 5 5 5 5
4b. 4b. 4c. 4c. 4c. 4d.	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt my services or products to them. I would look for ways to increase customer satisfaction and loyalty to my company. I would be able to pick up a different client's viewpoint and apply it to my own actions. I respect people from different communities even different from mine.	1 1 1 1 1	2 2 2 2 2 2 2	3 3 3 3 3 3	4 4 4 4 4	5 5 5 5 5 5
 4b. 4b. 4c. 4c. 4c. 4d. 4d. 	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt my services or products to them. I would look for ways to increase customer satisfaction and loyalty to my company. I would be able to pick up a different client's viewpoint and apply it to my own actions. I respect people from different communities even different from mine. I can understand different worldviews than mine.	1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3	4 4 4 4 4 4 4	5 5 5 5 5 5 5 5 5
 4b. 4b. 4c. 4c. 4c. 4d. 4d. 4d. 	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt my services or products to them. I would look for ways to increase customer satisfaction and loyalty to my company. I would be able to pick up a different client's viewpoint and apply it to my own actions. I respect people from different communities even different from mine. I can understand different worldviews than mine. I can speak out against prejudice and intolerance.	1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3 3 3	4 4 4 4 4 4 4 4	5 5 5 5 5 5 5 5 5 5
 4b. 4b. 4c. 4c. 4c. 4d. 4d. 4d. 4e. 	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt my services or products to them. I would look for ways to increase customer satisfaction and loyalty to my company. I would be able to pick up a different client's viewpoint and apply it to my own actions. I respect people from different communities even different from mine. I can understand different worldviews than mine. I can speak out against prejudice and intolerance. I can identify relationships between people in my area.	1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3 3 3 3	4 4 4 4 4 4 4 4 4 4	5 5 5 5 5 5 5 5 5 5 5 5 5
 4b. 4b. 4c. 4c. 4c. 4d. 4d. 4d. 4e. 4e. 4e. 	As a superior, I would be able to support the professional development of my subordinates actively. As a supervisor, I would be able to assign tasks to my subordinates that would serve to develop their abilities. I would be able to understand my customers' needs well and adapt my services or products to them. I would look for ways to increase customer satisfaction and loyalty to my company. I would be able to pick up a different client's viewpoint and apply it to my own actions. I respect people from different communities even different from mine. I can understand different worldviews than mine. I can speak out against prejudice and intolerance. I can identify relationships between people in my area. I can detect critical networks of social networks.	1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3 3 3 3 3	4 4 4 4 4 4 4 4 4 4 4	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

Table A1. Cont.

							_
No	Questions	SD	D	Ν	Α	SA	
Social Skills							
5a.	I can win over others.	1	2	3	4	5	
5a.	I can adapt my presentation to the viewer.	1	2	3	4	5	
5a.	I can use even complex strategies to get support for a given case.	1	2	3	4	5	
5b.	I can talk about difficult matters frankly.	1	2	3	4	5	
5b.	I am able to seek mutual understanding and am able to share	1	C	2	4	5	
	complete information with others.	1	Ζ	3	4	5	
5b.	In mutual contacts I am open-minded.	1	2	3	4	5	
5c.	I can behave diplomatically and tactfully when dealing with people	1	2	3	4	5	
	of difficult nature.	1	2	5	4	5	
5c.	I can spot potential sources of conflict, openly present	1	2	3	4	5	
	misunderstandings, and help clarify them.	1					
5c.	I am a good mediator and I can propose acceptable solutions for	1	2	З	4	5	
	both parties.	1	4	0	т	0	
5d.	I can be a leader regardless of my position.	1	2	3	4	5	
5d.	I like to set my own example.	1	2	3	4	5	
5d.	I can manage others' work by giving them advice and guidance, but	1 3	2	З	4	5	
	without removing responsibility for results.	1	4	0	т	0	
5e.	I can notice the need for change and remove obstacles to it.	1	2	3	4	5	
5e.	I can dispute an existing state of affairs to demonstrate the need for	1	2	3	4	5	
_	change.	1	~	~		_	
5e.	I am a propagator of change, and I can win supporters for it.	1	2	3	4	5	
51.	I like to make and maintain friendship with my colleagues.	1	2	3	4	5	
51.	I can look for mutually beneficial relationships with different people.	1	2	3	4	5	
51.	I can create and maintain extensive informal networks.	1	2	3	4	5	
5g.	I often try to look for opportunities to cooperate.	1	2	3	4	5	
5g.	I can cooperate with others by sharing information and resources.	1	2	3	4	5	
5g.	I can balance focusing on the task and taking care of the right	1	2	3	4	5	
	relationship with others.	4	~	~		_	
5h.	I can take care of the team's well-being and share the merits.	1	2	3	4	5	
5h.	I can convince others to participate actively and enthusiastically in	1	2	3	4	5	
	my team.						
5h.	I can convince team members to identify themselves with the group	1	2	3	4	5	5
	and to show solidarity within the group.						

Table A1. Cont.

(1) SD—strongly disagree, (2) D—disagree, (3) N—neither agree nor disagree, (4) A—agree, (5) SA—strongly agree. Source: based on Golemana [33].

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