Exploring entrepreneurial intentions within equine sector from Romania: an environmental economics approach

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Abstract

Purpose – This study aims to investigate the correlations between latent variables embedded into three clusters (equine agritourism, therapeutic horse riding and equine sports) and entrepreneurial intentions of people interested to invest in equestrian sector.

Design/methodology/approach – The authors propose a conceptual framework focused on three latent variables that influence the interest of horse enthusiasts to embrace an entrepreneurial career. Statistical analyses via Pearson's chi-square tests, analysis of variance (statistical formula used to compare variances across the means (or average) of different groups) and regression analysis have been performed to validate our assumptions.

Findings – Findings reveal a high level of interest of from horse enthusiasts to opt for an entrepreneurial career, as funding opportunities in this sector are growing due to European union and national funding available for this endeavour.

Originality/value – Very limited research studies have been explored the entrepreneurial intentions in equine industry. This study proves that sports and therapeutic activities influence to the greatest extent, the entrepreneurial intention in the equestrian sector.

Keywords Quantitative survey, Entrepreneurial intention, Nascent entrepreneurs, Environmental economics, Equine sector

Paper type Research paper

1. Introduction

Horses are part of a nation's identity, the history of its people and the trends in the equestrian sector show the transition from the traditional use of horses in agriculture to a wide range of services in search of new business ideas, thus becoming a more and more appreciated sector.

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Today, the equestrian sector is strongly imbued with cultural traditions and beliefs, which are proven to be consistent with the early rituals. However, in recent decades, the equestrian industry has begun to experience a new shift, explaining a diverse range of entrepreneurship (AHC, 2018).

The equine industry is constantly evolving, and the most enthusiasts in this sector tend to earn a living and develop a fruitful business through these animals.

Being a constantly changing industry, even fluctuating, which involves high risks for the formation and maintenance of a "healthy" capital, the prospecting entrepreneur must also have managerial or management skills. Often, this industry makes it difficult to structure a well-organized plan to help future entrepreneurs because sometimes the emotional side takes precedence over other benefits.

The equestrian sector plays an important role in the development of sustainable, rural and social entrepreneurship. The combination of services in the equestrian sector can have a beneficial effect in going through a crisis, and the setting up of a horse-based business can be considered a complex one. The social, cultural and economic environment helps the equestrian sector to develop a sustainable start-up ecosystem, as it respects the natural integrity of the environment, a key principle for reaching the success in the future.

A nascent entrepreneur in the equestrian sector can carry out combinations of resources and activities to exploit economic, social or cultural opportunities in a constantly changing environment for horses.

Because there are not enough models to analyse the equestrian entrepreneurship, the reference factor chosen for this study is the intention to embrace an entrepreneurial career in three of the most attractive activities offered by this industry: tourism, sports competitions and hippotherapy (HT). Therefore, we set out to find answers to the following questions:

RQ1. Do equestrian tourism opportunities influence the entrepreneurial intentions of horse enthusiasts?

RQ2. Do the opportunities offered by sports contests influence the entrepreneurial intentions of horse enthusiasts?

RQ3. Do the opportunities offered by hippotherapeutic activities influence the entrepreneurial intentions of horse enthusiasts?

Our research studies the intentions of the horse enthusiasts, as nascent entrepreneurs. The purpose of this paper is to investigate whether there are opportunities and interest in setting up and developing a promising business in the equestrian sector in Romania.

2. Theoretical background

The use of intentions as a dependent variable in equestrian entrepreneurship involves the risk of not differentiating between desire and realization (Delmar and Davidsson, 2000). Psychological research suggests that the relationships between intentions and behaviour are not always so strong (Ajzen, 1991).

The psychological traits of the horse enthusiasts are among the most used in entrepreneurial research. A more relevant approach combines the individual's value system and cognitive mechanisms with the social ones (Katz, 1992). Delmar and Davidsson (2000) emphasized that a nascent entrepreneur must also have experience in management.

Growing globalization and technological effects have led to more business opportunities in the equestrian sector (McMullen and Shepherd, 2006). Creativity allows the entrepreneur to act on these opportunities in ways that can lead to a competitive advantage for the

organization. It can provide the basis for innovation and economic efficiency, as well as for having a positive impact on the society in general (Bilton, 2007).

Entrepreneurship in the equestrian sector and beyond is based on three dimensions: creativity, risk-taking and foresight. Through creativity, the entrepreneur leads the ideas to efficiency and profitability. Risk-taking refers to the way in which innovation produced by creativity is incorporated into the organization. Foresight leads to the achievement of the proposed goal through perseverance and adaptability (Fillis and Rentschler, 2010). Switching from a traditional business mindset to one based on associative-cooperative-responsible practices represents the key to ethical value propositions in equine entrepreneurship (Bull and Ridley-Duff, 2019). Sustainable equine entrepreneurship requires a more compassionate and ethics-based approach to the welfare of horses used in tourism, competitions and HT activities (Douglas *et al.*, 2022).

Entrepreneurship is often associated with starting a new business. However, this is not necessary in the equestrian sector, as an existing farm can also be entrepreneurial. Therefore, entrepreneurship can be seen as a feature of the equestrian organizations in general and can be measured by the analysis of managerial behaviour when carrying out entrepreneurial activities (Covin and Slevin, 1986).

Equestrian entrepreneurs are enthusiastic about all horse-related activities. Passion is considered elementary and faithful to entrepreneurial intentions (Ranfagni and Runfola, 2018). An entrepreneur in the equestrian industry can be seen as "soul based business owners" or "heart based of conscious business owners" (Meer Advies, 2010).

Nascent entrepreneurs need to take into account the economic, social and technological changes that the equestrian sector is currently facing (Cheriet *et al.*, 2020). Only a few studies have examined the entrepreneurial intentions in the equestrian industry, allowing us to better understand the processes that led to the decision to begin a start-up in this sector (Liñán and Fayolle, 2015).

This sector divides professionals in the field into two categories: individuals who want to make a profit and individuals who like to spend their free time around horses (The Henley Centre, 2004). But this does not mean that one who is just an entrepreneur cannot make a passion for this sector, or one who is attached to horses cannot become an entrepreneur.

Nascent entrepreneurs in the equestrian sector have previously been involved in breeding, training or recreational riding. They took advantage of a business opportunity related to a personal interest: a hobby, a passion or an extension of their agricultural activities (Helgadóttir and Sigurðardóttir, 2008). In addition, the impediments faced by small entrepreneurs in the equestrian sector usually caused the fear of not being able to achieve performance (Kollmann *et al.*, 2017). A favourable evolution for entrepreneurship in this sector is the combination of services provided with relaxation or social welfare (Sommerville *et al.*, 2018).

Equestrian entrepreneurship has given rise to a research linking the concepts of sustainable management and entrepreneurship. These enterprises are characterized by high social and environmental standards (Belz and Binder, 2017). When there is interest in setting up a horse-based start-up, the gains are not only economic but also environmental (Shepherd and Patzelt, 2011). Horse enthusiasts have faced a variety of challenges related to rising costs and environmental regulations so that new sustainable strategies are needed to increase and maintain a level of profitability (Rantala *et al.*, 2019). Practice has shown that only entrepreneurial farms are capable to cope with the challenges of the market, and horse enthusiasts need to develop tools to determine the level of entrepreneurship at a certain stage of their activity (Drejeris *et al.*, 2021).

Equestrian entrepreneurship should be able to purposely address climate-smart agriculture principles, developed and promoted to improve farm productivity (Kangogo *et al.*, 2021).

The most complex and attractive activities in the equestrian sector are those offered by: equestrian tourism (ET) or agrotourism, competitions and sports and, last but not least, HT.

According to the International Equestrian Tourism Federation, the term "equestrian tourism", which appeared in the 1950s, refers to all outdoor activities with equidae, except residential areas. ET is a form of sustainable leisure, although there are very few studies on the direct impact of horse use in tourism (Pickel-Chevalier and Grefe, 2015).

One strategy that needs to be developed in the field of horses is the marketing and development of the touristic side of the industry, as this is an important branch of the economy. In a society in which the development of tourism is a major stake, the ET has an exceptional role "to play". This can be based on the evolution of social values, such as closeness to nature or education and on a proven enthusiasm for outdoor equestrian practice.

ET is the journey that includes all the activities that have the horse as a starting point. Depending on the activities and context, it can be interpreted as sports tourism (Tennstedt, 2008), adventure tourism (Hackbert and Lin, 2009), ecotourism (Ollenburg, 2005), agrotourism (Himmel, 2008) or cultural tourism (Helgadottir, 2006). Tourism definitely contributes to the valorization of this equine heritage, but it requires a profound socio-cultural change, including a redefinition of the way the horses are integrated in ET. This change depends on the capability of the equine sector (EI) stakeholders to incorporate a tourism culture, including cultural sustainable entrepreneurship projects with local communities (Pickel-Chevalier, 2021).

The interaction of the urban environment with the rural one allows the equestrian sector to be a very attractive sector with a lot of potential, which offers a diversity of opportunities for future entrepreneurs (Rantamäki-Lahtinen and Vihinen, 2004). Creation and management of the enterprises, whose profile is the ET, lead to social cohesion, rural development and compliance with environmental conditions (Paniccia and Baiocco, 2020).

Likewise, the organization of equestrian competitions (EC) can develop ET by attracting a population eager to explore (Sigurðardóttir, 2018). In fact, the highest turnover is found in the horse racing industry (Liljenstolpe, 2009). Equitation centres are a niche business in this industry, given that the sport is relatively expensive. The evolution of the equestrian sport has not been so spectacular compared to other industries, but at the same time, it offers many opportunities (Berggren, 2018). Furthermore, organizers of EC proved the possibility of improving humans' emotional competences through equine-assisted exercises (Schütz *et al.*, 2021).

Diversification of activities and adaptability in space and time are elements that support a business in the equestrian field, especially when they are sources of income that complement each other (Korpa *et al.*, 2013).

The performance obtained by using equestrian therapy is reflected primarily at the neurological and sensorial level (Corral and Fernández, 2011). This activity is especially indicated for people with certain physical and psychological disabilities (Cuypers *et al.*, 2011). Therapeutic horse riding has proven to be a real success in social and psychological development, greatly reducing anxiety disorders and stress (Schultz *et al.*, 2007). HT emphasizes control, attention and concentration, sensorial management and communication and is part of the area of interest of many equestrian start-ups (Srinivasan *et al.*, 2018). Physical interaction with horses demonstrated its value in the fight to relieve symptoms of

stress and anxiety during the Covid-19 pandemic, being able to promote physical and mental wellbeing of persons interacting with horses (Furtado *et al.*, 2021).

3. Material and methods

The horse industry is divided into two parts: core activities, which means businesses focused on the ownership and breeding of horses and specific activities, such as tourism, sports, HT and manure processing. Activities forming the core part of the industry range from sport-related competitions to leisure, such as relaxing in nature.

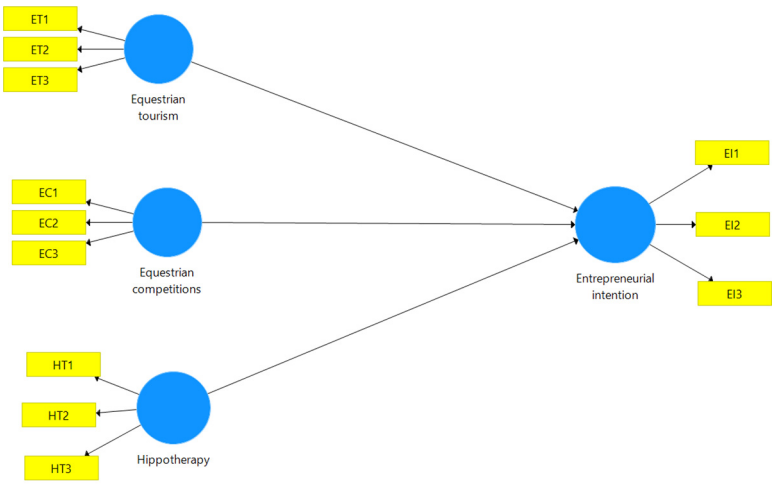
This paper is based on descriptive research; therefore, a questionnaire was designed and sent to the horse and equestrian enthusiasts to collect primary data. The data were collected through an online questionnaire, available at the following address: https://forms.gle/pw8t2DrARnRMmu1W7.

The research model, built on a reflective measurement model through partial least squares structural equation modelling (PLS-SEM) method, is emphasized in Figure 1. PLS-SEM method enables the estimation of complex cause-effect relationships (symmetrical) in path models, considering in this peculiar context relevant latent variables integrated in four clusters: ET), EC, HT and entrepreneurial intentions within EI.

Regarding the sample size, a satisfactory level was reached together with the validation of 111 answers. We proceeded to a balanced distribution of the horse enthusiasts included in the sample in almost all regions of Romania.

A scale of 5 points evaluated each hypothesis of the model, whose main constructs are revealed in Table 1): from strong disagreement to strong agreement, and in the same way it was proceeded for the result.

The most widespread and well-known method of analysing quantitative data is Statistical Package for Social Sciences (SPSS). This method provides predictive analytics and viable solutions for the business environment, with numerous algorithms and different ways of data viewing. SPSS also became a world-renowned brand, with the software being developed at Stanford University in 1968 to quickly analyse a large amount of data.



Source: Smart PLS software

Figure 1.
Conceptual model

Acronym	Description	Source
ET: equestrian tourism	ET1. I consider that there are many opportunities for financing business ideas in agritourism involving equine activities	Nickerson (2001)
	ET2. I set up an agritourism complex, and then, later, identified a business opportunity in the equine field	Notzke (2019)
	ET3. Equine tourism is a growing sector and has great potential for the Romanian economy	Paniccia and Baiocco (2020)
EC: equestrian competitions	EC1. I have participated in equine competitions and consider that an entrepreneurial career oriented towards organizing such competitions is attractive for me	Berggren (2018)
	EC2. I believe that establishing an equine business involving competition will attract investors in a short time	Gilbert and Gillett (2011)
	EC3. The organization of an international equine competition will support the development of local entrepreneurship	Wicker *et al.* (2012)
HT: hippotherapy	HT1. Significant demand exists for hippotherapy services in Romania and I am thinking of establishing a business in this field	Korpa *et al.* (2013)
	HT2. I anticipate the emergence of business ideas and financing programmes for services dedicated to people with disabilities, such as hippotherapy	Srinivasan *et al.* (2018)
	HT3. There are opportunities in hippotherapy that can be facilitated by accessing non-reimbursable funds for social entrepreneurship	Rantala *et al.* (2019)
EI: entrepreneurial intention	EI1. I observed a positive attitude towards my entrepreneurial initiatives from family, friends and colleagues	Bosnjak *et al.* (2020)
	EI2. I have the necessary knowledge to initiate and develop an entrepreneurial project in equestrian sector	Lupoae *et al.* (2023)
	EI3. I have a clear intention to start a business in the equine sector in the near future	Angriawan *et al.* (2012)

Source: Questionnaire items adapted from relevant literature

Table 1.
Main constructs used in questionnaire

The statistical tool used in this research was Pearson's chi-square test and regression analysis. The chi-square test was applied to determine whether there was a significant difference between the expected frequencies and the frequencies observed in three categories of activities in the equestrian sector: tourism, sports competitions and HT.

The use of the chi-square test involved the design of two hypotheses: the null hypothesis and the alternative hypothesis. The null hypothesis sought to establish that there is no significant difference between expected and observed frequencies, meaning that the activities in the equestrian sector (tourism, sports and HT) do not influence at all the entrepreneurial intention of the horse enthusiasts, while the alternative hypothesis stated that they are different and that there is a positive influence between them.

The main advantage of using SPSS in the application of the chi-square method is the possibility to build tables by collecting data from the research database. The regression analysis was selected as an appropriate statistical analysis to test the hypotheses because it is able to analyse the relationships between the variables included in the correlational framework and to highlight the predictors of the nascent entrepreneurs in the equestrian sector.

4. Findings

Performing the descriptive statistical analysis on the items included in the conceptual model (Figure 2) reveals the mean, median, standard deviation, Kurtosis and Skewness for all the constructs.

Thus, with over 100 validated answers, we can determine through SPSS software whether our variable, entrepreneurial intention, is influenced by ET, sports or HT.

The findings highlight the statistical significance of the cross-tabulation processes related to the correlations between the previously defined variables. The application of the chi-square test in case of hypotheses *H1*, *H2* and *H3* involved the design of a contingency table, which allowed the classification of the observed frequencies. The null hypothesis associated with the first research hypothesis, *H0* is the following:

H0. Equestrian tourism, sports competitions and HT do not significantly influence the level of entrepreneurial intention in the equestrian sector.

We checked the reliability and validity measurements of the latent variables included in the structural model (ET, EC, HT and EI). Cronbach's alpha and composite reliability (CR) values have been validated, as they exceed the recommended threshold of 0.70. In what concern, the outer loadings related to the items reflecting the constructs, we observe that most values are below the threshold of 0.70, outlining a balanced effect on variables. Only in the case of ET, the item ET3, highlighting a growing sector and a great potential for the Romanian economy, is the most influential, with an outer loading of 0.994.

All values assigned to average variance extracted (AVE) values are situated above the recommended threshold of 0.70 (Table 2).

4.1 Results of hypothesis H1

The results corresponding to the *H1* hypothesis test, after configuring the cross-tabulation process, using the respondents' answers stored in the SPSS database, are presented in Table 3:

H1. *Equestrian tourism opportunities influence respondents' entrepreneurial intentions.*

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
ET1	1	0	3.727	4.000	1.000	5.000	1.327	−0.566	−0.785
ET2	2	0	3.555	4.000	1.000	5.000	1.276	−0.655	−0.602
ET3	3	0	4.409	5.000	2.000	5.000	0.742	0.651	−1.102
EC1	4	0	4.091	4.000	1.000	5.000	1.023	0.086	−0.908
EC2	5	0	4.273	4.000	1.000	5.000	0.797	1.961	−1.191
EC3	6	0	4.527	5.000	2.000	5.000	0.643	2.736	−1.458
HT1	7	0	3.918	4.000	1.000	5.000	1.001	−0.138	−0.660
HT2	8	0	4.236	4.000	1.000	5.000	0.852	0.875	−1.014
HT3	9	0	4.291	4.000	1.000	5.000	0.813	1.753	−1.204
EI1	10	0	3.727	3.000	2.000	5.000	0.962	−1.337	0.202
EI2	11	0	3.945	4.000	2.000	5.000	0.711	1.766	−0.995
EI3	12	0	3.773	4.000	2.000	5.000	1.015	−1.311	−0.057

Source: Smart PLS software output

Figure 2.
Descriptive statistics

Constructs and their related items	Outer loadings
ET: Equestrian tourism	
(Reliability and convergent validity: α = 0.787, CR = 0.721, AVE = 0.678)	
ET1	0.051
ET2	0.157
ET3	0.994
EC: Equestrian competitions	
(Reliability and convergent validity: α = 0.815, CR = 0.889, AVE = 0.727)	
EC1	0.884
EC2	0.843
EC3	0.831
HT: Hippotherapy	
(Reliability and convergent validity: α = 0.807, CR = 0.886, AVE = 0.721)	
HT1	0.865
HT2	0.872
HT3	0.810
EI: Entrepreneurial intentions	
(Reliability and convergent validity: α = 0.832, CR = 0.900, AVE = 0.751)	
EI1	0.903
EI2	0.781
EI3	0.910

Notes: α = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted
Source: SmartPLS software

Table 2. Constructs and items included in the measurement model

	Entrepreneurial intention					
Equine tourism	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Disagree	1	1	1	3	7	13
Neutral	4	1	6	3	7	21
Agree	0	8	15	13	10	46
Strongly agree	0	1	8	5	17	31
Total	5	11	30	24	41	111

Source: SPSS software

Table 3. Equine tourism *entrepreneurial intention cross-tabulation

Because the asymptotic significance coefficient is close to zero (0.004), less than the allowable value of 0.05, and because the value of the Pearson Chi Square indicator (29,160), in the context of 12 degrees of freedom, is higher than the Pearson Chi Square table indicator (*21.026*), hypothesis *H1* is validated (Table 4).

The result of the regression analysis in Tables 5–7 indicates that there is a *positive but weak relationship* between *ET* and *EI* because the Pearson R correlation coefficient is 0.114. The coefficient of determination (R^2 = *0.013* indicates that *1.3%* of the EI variance is explained by ET. The analysis of variance (ANOVA) test points out that the regression model predicts EI to a small extent, as the F ratio of 1,433 is *less* than the value of the F tabled ratio of *3.9* ($F_{1,110}$ = *3.9*) and the generated value of *p* (0.234) is *higher* than the threshold of 0.05, which is statistically significant at a 95% confidence interval.

The regression model for *H1* is as follows:

$$EI = \alpha_0 + \beta_1 \, x \, ET$$

$$EI = 3.225 + 0.140 \, x \, ET$$

The results of the regression coefficients show that ET contributes statistically to the regression model ($\beta = 0.114$, $t = 1.197$, $p = 0.234$) and predicts to a very small extent EI. For each additional unit of ET, EI is expected to increase by an average of *0.140* units.

Statistical indicators	Value	df	Asymptotic significance
Pearson Chi-square	29.160	12	0.004
Likelihood ratio	29.043	12	0.004
Linear-by-Linear association	1.428	1	0.232
No. of valid cases	111		

Source: SPSS software

Table 4.
Chi-Square tests – *H1*

Coefficient of determination	R^2	0.013	n	111
Pearson correlation coefficient	R	0.114		
	Std. error	1.185		
	Adjusted R^2	0.004		

Source: SPSS software

Table 5.
Regression analysis – *H1*

Statistical indicators	Sum of squares	df	Mean square	F	*p*-value
Regression	1.997	1	1.997	1.433	0.234
Residual	151.912	109	1.394		
Total	153.910	110			

Source: SPSS software

Table 6.
ANOVA test – *H1*

	Unstandardized coefficients		Standardized coefficients		
Latent variable	*B*	Std. error	Beta	*t*	*p*-value
(Constant)	3.225	0.465		6.935	0.000
Equine tourism	0.140	0.117	0.114	1.197	0.234

Source: SPSS software

Table 7.
The results of the regression analysis – *H1*

4.2 Results of hypothesis H2

The results corresponding to the test of hypothesis *H2*, after the configuration of the cross-tabulation process, using the answers of the respondents stored in the SPSS database, are presented in Table 8:

H2. The opportunities offered by sports competitions influence the entrepreneurial intentions of the respondents.

Because the asymptotic significance coefficient tends to zero (0.000), less than the allowable value of 0.05, and because the value of the Pearson Chi Square indicator (*84,416*), in the context of 12 degrees of freedom, is higher than the Pearson Chi Square table indicator (*21.026*), hypothesis *H2* is validated (Table 9).

The results of the regression analysis in Tables 10–12 indicate that there is a *positive relationship* between *EC* and *EI* because the Pearson R correlation coefficient is 0.651. The coefficient of determination (R^2 = *0.424*) indicates that *42.4%* of the EI variance is explained by the EC. The ANOVA test points out that the regression model predicts EI to a significant extent as the F ratio of 80,218 is *higher* than the value of the F tabulated ratio of *3.9* ($F_{1,110}$ = *3.9*), and the generated value of *p* (0.000) is *less* than the threshold of 0.05, which is statistically significant at a 95% confidence interval.

Table 8. Equine competitions * entrepreneurial intention cross-tabulation

	Entrepreneurial intention					
Equine competitions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Disagree	2	1	0	0	0	3
Neutral	2	2	0	2	0	6
Agree	1	8	22	13	8	52
Strongly agree	0	0	8	9	33	50
Total	5	11	30	24	41	111

Source: SPSS software

Table 9. Chi-Square tests

Statistical indicators	Value	df	Asymptotic significance
Pearson Chi-square	83.416	12	0.000
Likelihood ratio	69.230	12	0.000
Linear-by-Linear association	46.634	1	0.000
No. of valid cases	111		

Source: SPSS software

Table 10. Regression analysis – *H2*

Coefficient of determination	R^2	0.424	*N*	111
Pearson correlation coefficient	*R*	0.651		
	Std. error	0.902		
	Adjusted R^2	0.419		

Source: SPSS software

The regression model for *H2* is as follows:

$$EI = \alpha_0 + \beta_1 \, x \, EC$$

$$EI = -0.964 + 1.089 \, x \, EC$$

The results of the regression coefficients show that EC contributes statistically to the regression model ($\beta = 0.651$, $t = 8.956$, $p = 0.000$) and largely predicts EI. For each additional unit of EC, EI is expected to increase by an average of *1,089* units.

4.3 The results of hypothesis H3

The results corresponding to the hypothesis test *H3*, after the configuration of the cross-tabulation process, using the answers of the respondents stored in the SPSS database, are presented in Table 13:

H3. The opportunities offered by hippotherapeutic activities influence the entrepreneurial intentions of the respondents.

Statistical indicators	Sum of squares	df	Mean square	*F*	*p*-value
Regression	65.249	1	65.249	80.218	0.000
Residual	88.661	109	0.813		
Total	153.910	110			

Source: SPSS software

Table 11. ANOVA test – *H2*

Latent variable	Unstandardized coefficients *B*	Unstandardized coefficients Std. error	Standardized coefficients Beta	*t*	*p*-value
(Constant)	–0.964	0.535		–1.802	0.074
Equine competitions	1.089	0.122	0.651	8.956	0.000

Source: SPSS software

Table 12. The results of the regression analysis – *H2*

Hippotherapy	Entrepreneurial intention Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Disagree	1	1	0	0	0	2
Neutral	4	4	6	4	2	20
Agree	0	6	18	12	11	47
Strongly agree	0	0	6	8	28	42
Total	5	11	30	24	41	111

Source: SPSS software

Table 13. Equine competitions * entrepreneurial intention cross-tabulation

Because the asymptotic significance coefficient tends to zero (0.000), less than the allowable value of 0.05, and because the value of the Pearson Chi Square indicator (*57,011*), in the context of 12 degrees of freedom, is higher than the Pearson Chi Square table indicator (*21.026*), hypothesis *H3* is validated (Table 14).

The results of the regression analysis in Tables 15–17 indicate that there is a *positive relationship* between *HT* and *EI* because the Pearson R correlation coefficient has the value of 0.593. The coefficient of determination (R^2=*0.351*) indicates that *35.1%* of the EI variance is explained by HT. The ANOVA test points out that the regression model predicts EI to a large extent as the F ratio of 59,004 is *higher* than the value of the tabulated F ratio of *3.9* ($F_{1,110}$ = *3.9*), and the generated value of *p* (0.000) is *less* than the threshold of 0.05, which is statistically significant at a 95% confidence interval.

Table 14.
Chi-Square tests – *H3*

Statistical indicators	Value	df	Asymptotic significance
Pearson Chi-square	57.011	12	0.000
Likelihood ratio	53.923	12	0.000
Linear-by-Linear association	38.633	1	0.000
No. of valid cases	111		

Source: SPSS software

Table 15.
Regression analysis – *H3*

Coefficient of determination	R^2	0.351	*n*	*111*
Pearson correlation coefficient	*R*	0.593		
	Std. error	0.957		
	Adjusted R^2	0.345		

Source: SPSS software

Table 16.
ANOVA test – *H3*

Statistical indicators	Sum of squares	df	Mean square	*F*	*p*-value
Regression	54.054	1	54.054	59.004	0.000
Residual	99.856	109	0.916		
Total	153.910	110			

Source: SPSS software

Table 17.
The results of the regression analysis – *H3*

Latent variable	Unstandardized coefficients		Standardized coefficients		
	B	Std. error	Beta	*t*	*p*-value
(Constant)	0.030	0.495		0.060	0.952
Hippotherapy	0.898	0.117	0.593	7.681	0.000

Source: SPSS software

The regression model for *H3* is as follows:

$$EI = \alpha_0 + \beta_1 \, x \, HT$$

$$EI = 0.030 + 0.898 \, x \, HT$$

The results of the regression coefficients show that HT contributes statistically to the regression model ($\beta = 0.593$, $t = 7.681$, $p = 0.000$) and predicts to a large extent EI. For each additional unit of HT, EI is expected to increase by an average of *0.898* units.

The results corresponding to the test of hypotheses *H1*, *H2* and *H3*, after the configuration of the cross-tabulation process and the results of the regression analysis, using the answers of the respondents stored in the SPSS database, are presented in Table 18.

In this case, the values associated with the asymptotic significance, which tended to 0, were lower than the significance level (0.05), and the value of the Pearson chi-square for *H1* (29,160), *H2* (83,416) and *H3* (57,011) was higher than the chi-square value corresponding to the statistics table (21,026), in the context of 12 degrees of freedom; the null hypothesis was rejected, and thus, the sources of information collection had a positive influence on the level of the entrepreneurial intention decision.

5. Conclusions

The results of our study aim to encourage horse enthusiasts to become entrepreneurs. A relevant managerial implication of the study is the ability of the research results to present to the horse enthusiasts the opportunities in the equestrian sector.

Equine entrepreneurship has multiple development directions: (1) social, considering the businesses based on sports and therapeutic activities, (2) ecological, due to the contribution to sustainable development, especially in businesses dedicated to bioenergy and biofertilizers produced from horse manure and (3) economic, because it offers opportunities for the development of rural tourism.

We consider that professional entrepreneurial profiles are related to horse enthusiasts in the equine industry, but a limitation reflects the idea that they are not sufficiently market-oriented, and they may lack the necessary knowledge for scaling a business in this sector (Lupoae *et al.*, 2023). Entrepreneurs in the EI could be perceived as horse enthusiasts due to their passion and involvement in breeding, training or recreational horsemanship before starting a business in this sector.

The conceptual model and the results of the hypothesis testing could support the enthusiasts in the horse sector in focusing and developing future start-ups. Moreover, the entrepreneurial intention allows equestrian enthusiasts to capitalize on the potential of this sector at maximum levels. The complex solution offered by SPSS demonstrates that sports

Hypothesis	Test	Pearson Chi-square	Asymptotic significance
H1	Supported	29.160	0.004
H2	Supported	83.416	0.000
H3	Supported	57.011	0.000

Source: Issued by the authors

Table 18. Validation of hypotheses

and therapeutic activities influence to the greatest extent, the entrepreneurial intention in the equestrian sector.

The establishment of a business in this field has as a starting point the discovery of the opportunities offered by equestrian activities. Horses contribute to the economic development and offer diversity, evolution and performance in many fields.

The aim is to raise awareness of this industry and its potential, to contribute to a global market and to encourage further research in this field. The level of education in both horse breeding and entrepreneurship should increase throughout the industry.

By using the different methods of data analysis, PLS-SEM, Chi-Square, ANOVA and regression, the findings of this study provide meaningful insights into understanding the factors that shape horse enthusiasts' entrepreneurial intentions and also the relationship between these factors.

In terms of theoretical implications, this research findings extend the theory of planned behaviour applied in sustainable entrepreneurship, by exploring the precursors of the horse enthusiasts' entrepreneurial intentions. More specifically, this study develops a new vision on the enablers of entrepreneurial intentions in EI, outlined in the latent variables included in the theoretical framework.

A practical implication refers to the facilitation of events and allocation of public funds aiming to promote equine business through tailored public policies oriented towards sustainable entrepreneurship.

This study untaps the sustainable opportunities in the horse industry, as entrepreneurs in the EI should be able to capture available funds or incentives from the governments and international sources.

6. Limitations and further research

Firstly, this study examined the intention of entrepreneurial behaviour in terms of the opportunities offered by the equestrian industry. The limitations of the study are represented by the fact that the correlation and configuration frameworks were tested only on a limited sample of people passionate about horses in Romania with different levels of interest for equine entrepreneurship. A main limitation comes from the fact that we were not able to discover the dimensions of these horse-related businesses and, implicitly, the number and importance of businesses and entrepreneurial initiatives in this sector. There are very few statistics available, only in several countries such USA and UK.

In this regards, further research should be conducted on the economic impact of equestrian industries on the global market. As the number of international equestrian events continues to grow and other segments or sub-industries are constantly evolving, these studies require further examination. Future research will also explore sustainable entrepreneurship in the equine industry through a qualitative survey to capture the interdependencies among the needs of society, the environment and entrepreneurs from different countries.

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Appendix. Questionnaire on entrepreneurial opportunities in the equestrian sector

Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
ET1. I believe that there are numerous opportunities for financing business ideas in the field of agritourism that can involve equestrian activities.					
ET2. I identified a business opportunity in					
the equestrian field by establishing an agro-tourism complex.					
ET3. Equestrian tourism is a sector in full development and presents great potential for the Romanian economy.					
EC1. I participated in equestrian competitions and I consider that an entrepreneurial career oriented towards the organization of such competitions is attractive for me.					
EC2. I believe that opening a business oriented towards equestrian competitions will attract investors in a short time.					
EC3. The organization of an international equestrian competition will support the development of local entrepreneurship.					
HT1. In Romania there is a significant demand for hippotherapy services and I am thinking of creating a business in this field.					

(*continued*)

HT2. I anticipate the appearance of funding programs for business ideas for services dedicated to people with disabilities, such as hippotherapy.					
HT3. Hippotherapy represents an opportunity that can be captured by accessing non-refundable funds intended for social entrepreneurship.					
EI1. I observed a positive attitude towards my entrepreneurial initiatives from family, friends and colleagues.					
EI2. I have the necessary knowledge to					
initiate and develop an entrepreneurial project in equestrian sector.					
EI3. I have the clear intention to start a business in the equestrian sector in the near future.					

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