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The economic and social impact of a university education upon the development of the Romanian tourism industry

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ABSTRACT

Historically, the Romania economy competed on low wages, but since 2007 close to 4 million citizens emigrated, eroding that advantage and increasing spending on students and pensioners. Romania is looking for alternatives, and tourism, could be a possible solution, but tourism education needs to become a priority. We surveyed 170 entrepreneurs and managers from the tourism sector to identify their perspectives on current employee's education levels along with the requirements for future educational initiatives. The primary research question in our study is whether or not a university degree makes a difference in an employee engaged in tourism.

1. Introduction

In 2018, Romania celebrated 100 years since its grand unification. During this century, it has experienced considerable cultural, political, and economic transformations. First, it had to assimilate Transylvania, a sizable region that was historically part of the Austro-Hungarian Empire. Next, it was involuntarily incorporated into the Soviet bloc and forced to nationalize its economy and adopt a centralized and collective system. With the fall of the communistic system, came the turbulent 90s with chaotic privatizations and endless social and economic experiments finalized what the integration into NATO (2004) and then the European Union (2007). The global digital revolution of the early 1990s, which disrupted most aspects of the global economy, coincided with significant social, political, and economic changes in Romania. An aggressive and misguided liberalization drive followed the fall of the communist regime without the necessary safeguards and coherent roadmap (Vaduva, 2016). National GDP decreased, unemployment became rampant, people emigrated, national assets were dubiously privatized, the political class splintered, corruption proliferated, and the overall quality of life diminished. Over the last 30 years, wealth in Romania was generated first through the privatization or selling of national assets, typically at a below-market rate and on dubious terms. Second, various industries such as textile, IT&C, or mechatronics speculatively moved in to employ a low-wage, mid-qualified workforce. The third form of economic development has been through remittance, sent either by individuals working abroad or by various international NGO's and governmental agencies looking to promote a particular issue in the country (Scarlat and Cristescu, 2007; Sotiropoulos et al., 2003).

In 2020, Romania is a nation of approximately 19 million citizens, but with close to 4 million individuals living and working in western Europe, some estimates placing that number even higher. From a government expenditure perspective, this is an unsustainable financial burden bordering on a future financial crisis. Romanians employed outside the country tend to be in the 20 to 50 age range,

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and typically net contributors to the government coffers, while those who stayed behind tend to be either students or pensioners, typically consumers of governmental services. An additional challenge to the Romanian economy and society could be the situation of youth unemployment. As the world is witnessing the global technological transformations, the young Romanian generation, to a higher degree than their global counterparts, have the risk to become what Yuval Harari categorizes as the "*useless class*" (Harari, 2017). Romania has approximately 100.000 pupils who are registered to begin high school, out of which approximately 30 to 40% are predicted to abandon school before graduating. Of the remaining, approximately half of them will either not enroll or will not pass the baccalaureate exam, thus making them ineligible to attend a university (Cocoradă et al., 2016; Martelli, 2018). As a result, during a knowledge century and economy, Romania will face having close to 50% of its population without a high school education, and many of them functionally illiterate. Besides the fact that Romania is naturally enriched with tourism capabilities, we believe the development of a vibrant tourism sector can alleviate some of those, as mentioned above, social and financial challenges.

We begin our research by arguing the potency and the future growth of the global tourism sector along with the positive multiplication effect it can have upon the national economy. We will next turn to the importance of education in tourism as an indispensable tool for the development of a healthy tourism industry. Our purpose is not to contradict those who believe that physical infrastructure investment is the key to the development of the tourist industry, but we consider our perspective to complement their valuable viewpoint. In this regard, the EU funding strategy is already skewed towards tangible infrastructure investment. Therefore, we believe that the national and local efforts should be focused more towards investment in education, which would increase the quality and price of tourism services.

Furthermore, most large physical infrastructure projects take long periods to be implemented and often cannot be completed due to situational constraints. In contrast, investment in education and training is less expensive, can be easily implemented, does not require large organizations or coalition agreements, and it typically yields visible results in short periods. Therefore, we turn our attention to the issue of tourism education at the global level and specifically within the Romanian context. Unfortunately, there are a limited number of conclusive academic studies undertaken on the issue of Romanian academic management and reform and even fewer researches focusing on tourism education. We propose to address this gap in the literature with our study. We selected and surveyed 170 managers and entrepreneurs from the Romanian tourism industry, asking them a series of questions regarding their employees, the education and training they received, and whether they perceive value in a tourism university degree.

Over the last 30 years, some Romanian universities, which historically enjoyed a high level of respect and influence, have started to deteriorate (Nastase et al., 2015). As stated above, close to 50% of Romanian young people do not see the value of a high-school education, less alone a university degree. Some who graduated from universities complain that their education was purely theoretical, without the practical knowledge to prepare them for meaningful employment. The primary research question in our study is whether or not a university degree makes a difference in an employee engaged in the tourism industry. The secondary question of our study was in what way should the Romanian education system in general, and tourism education in particular reform to enable the national economy to compete at the European level. From the days of Communism, Romania, along with its Warsaw Pact allies, competed on the global economy as a heavy industry producer. Its economic, competitive advantages were relaxed environmental standards and low wages ensuing from a command economy and a captive labor force. After Communism fell, and since integrating into the European Union, both of those competitive advantages have been substantially reduced. Through our research, we hope to contribute to the school of thought that urges Romania to adopt a tourism-led development strategy.

Unlike some of its Eastern European neighbors, Romania has the natural endowments to develop a vibrant tourist industry. Regrettably, it also lacks significant development alternatives. The Asian "manufacturing-based" development model or the Irish "low-end services" models have limited applicability in a nation with open borders. Romania's traditional economic sectors now have to contend with the digital revolution, which is built on inexpensive and efficient robots, 3-D printing, and artificial intelligence designed to replace low-wage workers. Considering this reality, we shall conclude that a robust tourism industry underpinned by a world-class education system would have a significant contribution to the economic development of Romania with spillover effects into other industries and could serve as a blueprint for other developing economies throughout the world.

In the first section we shall outline the general benefits of the tourism sector as stated in the literature, next we shall focus on the tourism industry as an anchor industry with beneficial spillover effects into the general economy. Next we shall have a brief discussion on the global situation and history of tourism education followed by an account of the Romanian tourism industry. Finally, we shall outline our study on Romanian travel agencies and hotels including the methodology and the results. The paper concluded with future research suggestions.

2. Literature review: the growth, potential, and benefits of the global tourism sector

The academic literature regarding the global tourism sector focuses on the economic benefits for society, but it also underlines the substantial social, cultural, and environmental benefits (Scheyvens, 1999). According to the World Tourism Organization 2018 Tourism Highlight report, in 2017, 1.326 million tourists were spending an estimated $1.340 billion, which represented an increase of 7% in the global number of tourists and 5% in their spending as compared to 2016. As in the past, Europe led the world as a tourist destination, with approximately 672 million tourists. This number represented an increase of 8% over the previous year, and these tourists spent around $519 billion. The World Trade and Tourism Council in their March 2018 report estimated that the global tourism sector has a direct contribution of $2570.1 billion to global GDP (3.2% of total) and is forecasted to reach 3.6% by 2028. The indirect financial contribution of the tourism sector to global GDP in 2017 was estimated to be $8272.3 billion or 10.4% of total global GDP and is forecasted to reach 11.7% by 2028. In 2017, the global tourism sector employed an estimated 119 million people or 3.8% of the global labor force, and it is estimated to increase to over 150 million people by 2028 or 4.2% of the global labor force. The indirect jobs

it supported in 2017 was close to 313 million, and it is estimated to reach 414 million by 2028.

Drucker (2012) states that the increase in the standard of living along with the disposable income of the affluent West in the 20th century was one of the significant factors that developed the tourism sector, and this phenomenon is projected to expand to the rest of the developing world, especially to Asia, which is experiencing newfound wealth and is looking to enjoy and parade it (Yang Fiona and Lau Virginia, 2015). The size and dynamism of the global tourism sector make it difficult for practitioners and theoreticians to analyze and evaluate it adequately. However, Vainikka (2014), Jovicic (2016), Postelnicu and Dabija, 2018 claim that it is a phenomenon never before seen in human history. In the past, the working people seldom enjoyed leisure time; rather, it was a privilege for the wealthy elite. Beyond the financial and economic benefits conferred by the tourism sector, humanity should also celebrate the social benefits that tourism brings to the quality of life for the millions of world travelers each year.

Higgins (1996) apportioned the tourism sector among transportation services, lodging operators, food and beverage operators, activities and recreation services, and retail services. Given the American dominance of the 20th Century, many of the sector's segments are dominated by established American brands. There are, however, abundant opportunities for local operators to add their unique flavor by servicing specific niches or inventing new ones (Becerra et al., 2013; Ottenbacher, 2007). Individual nations have adopted tourism as their strategic, "anchor" sector for the development of their economy, an issue we will later analyze in more detail since it constitutes our recommendation for the Romania economy. Looking into the future, the most significant challenges and opportunities encountered by the global tourism sector are digital disrupters such as Airbnb, Expedia, UBER, Facebook, and others (Hughes, 2018; Salvioni, 2016). cultural conservation (Nasser, 2003) and ecological challenges (Bharwani and Butt, 2012; Ruhanen and Shakeela, 2013).

3. Tourism as an "anchor" industry for economic development and cultural transformation

As previously mentioned, many nations – Romania among them – have identified tourism as an anchor industry that would positively influence their entire economy and culture (Crouch and Ritchie, 1999; Nicula et al., 2013). Nations like Spain and Greece, where tourism is close to 20% of GDP are potent motivators for developing countries such as Romania, uniquely if they are enriched with the natural components of a touristic destination, such as mountains, beaches, river deltas, historical towns, castles, and others. There are, however, additional reasons why a tourism-led, national economic development plan should be adopted by Romania and other developing nations. Considering the recent innovations in manufacturing, such as robotics and 3-D printing, an Asian-style low wage/high export strategy is less appealing and applicable (Attaran, 2017; Wade, 1990). Technology is increasingly enabling higher quality products with lower costs than traditional manufacturing in nations like Romania with unrestricted labor mobility and labor union legacy (Hornianschi, 2014). Also, the advent of Artificial Intelligence (AI) is poised to negatively affect even the coveted white-collar jobs (Tundrea et al., 2020), which will further aggravate the current situation.

4. Global tourism education

According to Balčdigara et al. (2011) and Bartoluci et al. (2014), developing an internationally competitive tourism sector requires appropriately trained service providers and managers beyond physical and technological resources. If the process of tourism education were understood and properly implemented, it would increase the overall quality of the service offering and customer experience (Lee et al., 2008). Historically, tourism education was an "on the job training" in various European establishments. Eventually, companies and trade associations established schools, emphasizing the standardization of hospitality management and hotel management skills (Morgan, 2004). Later on, regular universities incorporated these programs with an attempt to balance vocational training and hospitality management job skills with a classical academic focus (Busby, 2003). As a result, the cost and implicitly the control of tourism training was transferred to educational professionals in various universities and ministries of education.

Breakey and Craig-Smith, 2008 trace the history of academic hospitality programs over the last four decades: in the 1970s, progress was slow and traditional, followed by the 1980s, which experienced a slight increase in the demand for university-educated graduates in the field of tourism. Most programs were focused on operational skills with intense internship programs, allowing the students to experience the theories they were studying in the classroom and thus making them more employable (Rappole, 2013). In the early 1990s, with global liberalization and integration by various economies and corporations, tourism education experienced a significant increase, which continues to this day. Naturally, significant variations and customization existed to meet specific local and cultural conditions (Baum, 2005), but the industry developed a robust body of knowledge.

Universities are service providers themselves, but as the name indicates, each university tends to be a universe unto itself. According to Beeby, 2014, university faculty – the building block of any university – must concern themselves firstly with pedagogical activity, next research activity, and finally, service activity, which in many instances includes grant writing, fundraising, and interacting with the community. Unfortunately, these significant responsibilities require different skill sets, and few faculty members can perform them equally well. Numerous universities in developing countries like Romania suffer from chronic underfinancing, as they are financed by governments with limited resources and other priorities, thus making it difficult to meet international standards of quality in education (Marin, 2018).

Tourism degrees face an additional conundrum: they are pressured to conform themselves to prestigious, typically foreign programs for accreditation purposes, but at the same time prepare students to be employees and managers in local realities (Dawson, 2014; Harper et al., 2005). The employability of the students is a significant factor that influences social standing and respectability, governmental financing, and is the primary determinant in the recruitment of future students (Harvey, 2000). Unfortunately, the curriculum tends to be designed for accreditation purposes, build predominantly on the teaching capabilities of accredited professors,

and the practical skills intended to meet local demand are often missing. Furthermore, universities are bureaucratic institutions with a strong inertia to limit themselves in making any changes, and updates are difficult to accept and implement. An update to a simple curriculum for an entry-level course may take months, sometimes even years, to implement after a long and time-consuming process (Quain et al., 2014).

Universities must additionally concern themselves with the attraction and retention of students. According to King et al. (2003), in the case of Australian and Hong Kong tourism students, close to 50% who enroll in a tourism program will drop out in the first year. Many of those who begin a university degree in tourism do not finish, and many of them will not even work in the filed given the low pay, hard working conditions, and limited potential for advancement (Rudd et al., 2014). These and other conditions are leading the US Bureau of Labor and Statistics to estimates a shortage of over 847,000 tourism jobs in the US alone. There is an increased interest in informal, non-traditional graduate programs, especially for entrepreneurs and mid-size enterprises in tourism (Connor and Shaw, 2008). However, there is not enough research on the quantity and the quality of Romanian hospitality education and its impact on the overall economy, and it is this gap in the literature that our study aims to fill, and hopefully stimulate further interest in this area.

5. Romanian tourism education

As previously mentioned, one of the critical missing but paramount ingredients in the Romanian tourism industry is sufficient world-class service providers who can deliver a quality customer experience, thus giving the sector a global competitive advantage (Baltaretu, 2013; Fundeanu, 2015; Mazilu et al., 2016). In order to accomplish that, this paper turns its attention to the Romanian educational sector in general with a particular emphasis on tourism education. According to Tsantis and Pepper (1979), between the 1950s and 1970s, the communist government of Romania made significant investments in primary and vocational education, mainly in facilities and teachers. In a typical centralized fashion, the education system was designed to meet the exact needs of the economic sector without a free-market interference of supply and demand.

After the fall of communism, the Romanian education system underwent a series of reform attempts. According to Birzea (1996), the reform process was characterized by a power struggle between the old administrative and political elites and the new generation of reformers:

> Educational reform in Romania was not as sudden as in the case of other Central and Eastern European countries. A systemic change from a centralized controlled system to an open one in which the state steers from a distance never ensued. The administrative bureaucracy that was regulating and carefully controlling the system fought hard for maintaining the status quo. Making up a long list, changes to the educational system, purely administrative, were not based on any precise assessment of needs or available resources for their implementation, but were generally deemed "urgent" in order for the system to "catch-up with the developed western European societies." (Birzea 1996, pg. 78)

The Romanian education system, like most educational systems, has always had conservative tendencies. However, perhaps because of the external shocks and criticism over the last three decades, it has come to view most external forces and initiatives as adversarial and threatening (Florian & Țoc, 2018). The European integration of 2007 brought additional pressures and demands upon the Romanian education system. To the struggle between theoretical and practical, the system added "national" vs. "European" distinctions, this while the European tourism community was itself undergoing profound transformation given the scarcity of human resources, global competition, and technology transformation (Espasandín et al. 2010).

The literature on the Romanian tourism education system is limited. However, Stoian (2016) undertook a quantitative survey of the various accredited programs Romanian universities offer. Perhaps a subject of future research would be a qualitative analysis of their curriculum, research output, and employability of graduates. In 2016 approximately 40 Romanian universities offered four main types of degrees in "Business Administration in Tourism," "Tourism Geography," "Tourism Engineering and Management," and "Cultural Tourism." Table 1 lists them along with the number of places approved and in the case of public institutions, financed by the Ministry of Education. It is noteworthy that students did not fill all the offered places and not all students who enrolled finished their degree, with some who finished not taking their final exam (licenta), in effect nullifying their college education.

The publication of *"Mapping and performance check of the supply side of tourism education and training: Country Profile for Romania"* by The Comparative Study Of Electoral Systems (2016) sheds further light on the current state of Romanian hospitality education. The report contains a comprehensive literature review along with interviews by academicians, industry professionals, and trade organization representatives. Two of the ten strengths listed in the report for the Romanian hospitality sector were: (1) a well-developed network of high schools and universities offering tourism education and (2) a high number of people trained in tourism in Romania and Europe. Two of the many weaknesses presented in the report are also significant to our current analysis: (1) precarious work conditions and low salaries, which caused a high migration and (2) the lack of necessary skills, which prevented the staff from

Table 1
Total number of university places in tourism education*(*Stoian, 2016*)*.

Type of Degree	2011	2012	2013	2014	2015	2016
Business Administration in Tourism	9.130	9.095	8.970	8.285	7.645	6.685
Tourism Geography	2.729	2.859	2.919	2.924	2.640	2.575
Tourism Engineering and Management	2.005	2.400	2.520	2.345	2.365	2.215
Cultural Tourism	0	180	180	180	180	180
TOTAL	13.864	14.534	14.589	13.734	12.830	11.655

performing at international service standards (cf. World Tourism Organization, 2007).

Our research question was if a university education was the best answer to bridge the skill gap in the Romanian hospitality industry and if it had the potential to impact the overall economy through spillover effects. Given the apparent simplicity of the service sector, along with the technological advances in training and the presence of non-accredited trade schools, there may be an argument to discard the traditional university degree altogether. Our paper seeks to analyze the perceived quality of current hospitality education programs from a unique data source available to the authors and hitherto unpublished in the literature.

5.1. Methodology

5.1.1. Sample

The presented data was collected via a survey questionnaire administered in March–May 2016 using a five point Likert-type scale measuring importance and satisfaction based on agreement. To verify reliability of the questionnaire we utilized Cronbach alpha's reliability coefficient. To achieve a random sample, the questionnaire was sent via email to all Romanian travel agencies (2,689) and independent hotels (1,724) which had websites at that time. We mainly surveyed owners or senior managers of the tourism agencies and hotels inquiring about the difference a formal hospitality university degree made in their employees performance on the following six domains: (1) leadership and management, (2) problem-solving, (3) interpersonal, (4) business awareness, (5) technical, and (6) personal. The essential factor in the sample was that the respondents had personal experiences and adequate personal tenure to respond regarding the staff they were hiring and training. The complete questionnaire is listed in Annex 1. The surveys could be completed in real-time over the phone, electronically via e-mail, and, to a lesser extent, in person. The initial email generated 170 respondents who self-selected themselves as being willing to complete our survey after receiving a reminder via the telephone.

5.2. Measurement

The survey data used to analyze the demographic correlates the perception of managers with the viewpoints of hospitality university graduates. Demographic and other individual-level respondent characteristics were measured straightforwardly, while perceptional items were recorded utilizing a Likert-type scale measuring importance and satisfaction (Annex 1). The perceptions

Table 2
Frequency table - demographic variables.

	%	n
Gender		
Female	60.6	103
Male	39.4	67
Age		
21-25	7.6	13
26-30	21.8	37
31-40	37.1	63
41-50	22.9	39
51+	10.6	18
Education		
High School	11.8	20
Bachelor's degree	52.9	90
Graduate degree	35.3	60
Hospitality Degree		
No	25.3	43
Yes	74.7	127
Years of Hospitality Exp.		
1–3 yrs	12.9	22
4–5 yrs	18.2	31
6–10 yrs	31.8	54
10+ yrs	37.1	63
Company Position		
Board member	6.5	11
CEO/President/General Mgr	37.1	63
Vice President	0.6	1
Head of BU	20.6	35
Human Resource Mgr	2.4	4
Marketing Dept Mgr	4.7	8
Financial Dept Mgr	1.2	2
Other Dept Mgr/Asst. Mgr	3.5	6
Other	23.5	40
Company Type		
Hotel	20.6	35
Tourism Agency	28.2	48
Missing	51.2	87
Total (N = 170)	**100.0**	**170**

measured included the level of satisfaction with the graduate's theoretical knowledge and practical skills and abilities. An additional area of inquiry was the perceived importance of various skills and attributes desired among recent graduates of hospitality educational programs. Education was the prevailing theme of our study, particularly the industry perspective on the state of hospitality education/training of new graduates employed by hospitality service providers.

6. Results

Univariate descriptions in Table 2 display our 170 survey respondent demographics. The sample population consisted of 61% women and 39% men. The age demographic was of particular interest because it represents a variable that can be related to having experience under the communist regime. Generally, anyone under 40 years of age (66%) would not have experienced education or careers under the communist regime, while those over 40 (34%) did. 87% of the respondents had a college education; 75% of them had a degree in the field of hospitality, and 35% also had a master's degree. We surmise that respondents who did not possess a university degree (13%) or were not educated in the field of hospitality (25%) place less value on that type of education.

In terms of experience in the hospitality industry, 31% of the sample population had less than five years of experience in the hospitality industry, while 32% had five to ten years of experience. The most experienced group, at more than ten years of experience, composed 37% of the sample. 76% of the respondents held positions of management or ownership and were implicitly experienced in the hiring, training, and supervision of employees. Forty-four percent of respondents held roles at the level of CEO and board member, which provided a broader view regarding the concerns for the service output consideration and input about how service is provided.

Moving to Table 3, we not only display univariate totals of additional survey items but also begin to look at cross-tabulations by whether the respondent's firm employs any hospitality graduates. Overall, we found that approximately 50% of respondents have hired a hospitality degree graduate within the last three years, and about the same proportion currently employs one or more graduates in their company. It is important to note that all respondents who had not hired a graduate in the last three years also did not currently have any graduates working in their firm. Our results show that overall, 47.1% of respondents were satisfied or extremely satisfied with the graduates' theoretical knowledge, but significant differences exist when comparing managers who hired hospitality graduates with those who did not. Firms with at least one hospitality graduate indicated a 56.8% satisfaction percentage in contrast with only 38.2% satisfaction in firms who did not hire a hospitality graduate (X^2 $p < 0.05$). Given the similar rating for the unsatisfied category between mangers with and without graduate employees (22.2% and 21.3% respectively), confidence abounds in the conclusion that the theoretical knowledge of hospitality graduates is significantly higher than non-graduates and recognized as such by managers.

However, the results for practical skills satisfaction are not as positive. Only 34.1% of the overall respondents were satisfied with

Table 3
Percent distribution: Hospitality university graduates attitudes/perception regarding the employment of a university graduate.

	# Graduates Employed by Company		
	None	1+	Total
Hired Graduate within Last Three Years			
No	–	–	50.6
Yes	–	–	49.4
Number of Graduates Employed by Company			
None	–	–	52.4
1	–	–	16.5
2	–	–	12.4
3-4	–	–	10.0
5+	–	–	8.9
Satisfaction w/Theoretical Knowledge*			
Extremely unsatisfied/Unsatisfied	21.3	22.2	21.8
Neutral	40.4	21.0	31.2
Satisfied/Extremely Satisfied	38.2	56.8	47.1
Satisfaction w/Practical Skills and Attributes**			
Extremely unsatisfied/unsatisfied	31.5	43.2	37.1
Neutral	40.4	16.0	28.8
Satisfied/Extremely Satisfied	28.1	40.7	34.1
Time Needed to Adapt to Workplace			
Less than one month	19.1	11.1	15.3
1–2 months	23.6	25.9	24.7
2–3 months	20.2	21.0	20.6
Greater than 3 months	37.1	42.0	39.4
Education – Industry Gap Rating			
1 – None	3.4	6.2	4.7
2	16.9	9.9	13.5
None – 3	9.0	6.2	7.6
4	14.6	24.7	19.4
5	27.0	24.7	25.9
6	14.6	9.9	12.4
7 – Very large	14.6	18.5	16.5
Chi-square test: *$p < 0.05$, **$p < 0.01$	N = 170		

graduates' practical skills and attributes, but the bivariate relationship reveals a fuller picture. Fully 43% of managers are unsatisfied with the practical skills and attributes displayed by graduates (whereas only 40.7% are satisfied). This significant dissatisfaction percentage is higher as compared to those who do not employ graduates (31.5%) (X^2 $p < 0.01$). The pattern seen in the data indicate a U-shaped relationship regarding dissatisfaction among firms with graduate staff versus firms with no graduate staff, where neutral is the mode response (40.4%)

The final two panels display the responses to items of the perceived time graduates need to adapt to the workplace and the perception regarding the gap between the knowledge and skills of recent graduates and the actual knowledge and skills necessary for hospitality industry success, measured on a seven-point scale. 40% of our respondents think graduates need more than three months to adapt to the workplace, and almost 55% indicated a score of five or higher, indicating significant to vast gaps between scholarly output and industry needs. Neither of these variables is significant at any conventional alpha level, and the bivariate percentages do not indicate any correlation between them and the presence of graduated staff.

We further used a logistical regression model to investigate the attitudes of our respondents regarding the hospitality graduates employed by them concerning the quality of their theoretical knowledge and their practical skills. Logistic regression affords us the ability to model covariates regressed against these two binary outcomes. Both of these variables were measured using a five-point Likert-type scale, recording the satisfaction of respondents to these survey questions. For the most salient correlates to satisfaction, we combined only positive satisfaction responses and compared them to all other responses for each dependent variable: Table 4 presents our findings. Calculated regression estimates were exponentiated in order to calculate log odds ratios, from which more straightforward interpretations can be presented. We included all demographic and attitudinal variables from Tables 2 and 3 except "company type" and whether the respondent had hired a hospitality graduate in the last three years. We excluded company type to obtain the highest valid number of cases, as slightly over 50% of respondents did not respond to this survey item. Given the high correlation of recent hiring of graduates and the number of current graduates employed, the inclusion of both of these multicollinear variables would reduce model power and stable estimate calculations given the assumption of independence of independent variables. Brackets indicate reference groups for model estimates.

Moving to our results, the first column in Table 4 presents the full logistic regression model of independent variables on satisfaction with hospitality graduates' theoretical knowledge. Multiple large, significant effects give us initial confidence in the robustness of the model and the ability to glean essential interpretations. Our first important analysis variable, the presence of graduate employees, shows a substantial, significant ($p < 0.01$) effect. Respondents who employ at least one hospitality graduate experienced almost 200% higher odds of being satisfied with the hospitality graduates' theoretical knowledge out of the net of control covariates. Another significant effect also exists among our set of controls: the oldest age group is more likely to be satisfied as compared to the youngest age reference group (at alpha = $p < 0.10$). Although high odds ratios were calculated, higher educated respondents were not statistically significant from lower educated ones.

Table 4
Logistic regression of hospitality graduate theoretical knowledge and practical skills satisfaction.

	Theory	Practical
	O.R.	O.R.
Constant	0.03**	0.03**
# Graduate Employees [None]		
1+	2.99**	2.72**
Age [21–30]		
31-40	0.83	1.10
41+	2.97†	2.03
Education [High School]		
Bachelor's degree	2.05	1.90
Graduate degree	1.91	1.05
Hospitality Degree [Yes]		
No	2.30†	2.84*
Years of Hosp. Exp. [1–5]		
6–10 yrs	3.38**	1.83
10+ yrs	2.36	0.95
Company Position [C-Suite]		
Head of BU	2.44†	3.59**
Other	1.21	1.46
Educ-Industry Gap [6–7]		
4-5	2.94*	2.19†
1-3	3.46**	3.69**
Nagelkerke's R^2	25.6%	21.8%
	N = 170	

Regression modeling "satisfied/extremely satisfied" vs all other responses.
†$p < 0.10$, *$p < 0.05$, **$p < 0.01$.

Interestingly, the respondents without a hospitality degree were more satisfied (O.R. 2.30) with the graduates' theoretical knowledge than respondents with a university degree. Although this is a perceptional issue, it supports our hypothesis that university graduates are better for the industry than nongraduates. The managers with six to ten years of experience in the hospitality field indicated 238% higher odds ($p < 0.10$) of being satisfied with their work in contrast with the respondents with only one to five years of experience. Managers of business units, as compared to vice presidents, general managers, CEOs, and board members display a 144% higher odds likelihood of being satisfied with the industry.

As a final control of these findings, we included our gap perception item as a way of checking for internal item validity. As expected, the lower the perceived gap between the knowledge, skills, and abilities of hospitality graduates and the necessary skills in the industry (the statistically significant minimum of $p < 0.05$), the higher the satisfaction with graduates' theoretical knowledge (O.R. 3.46 [$p < 0.01$] and 2.94 [$p < 0.05$] for gap ratings of 1, 2, or 3 and 4, 5, or 6 respectively). Our model fit the statistic presented is Nagelkerke's R^2, which for this model stands at 25.6% variance explained. Thus, our model is robustly explanatory as we move forward with some level of confidence in this analytical approach.

The second column of Table 3 repeats our modeling approach for the second dependent variable of interest, "perceived satisfaction with hospitality graduates' practical skills and attributes." Although many of the same patterns exist in this model, some bear pointing out given their slight dissimilarity from the previous model. The first understandable confirmation of the benefits of this model is that respondents who work with university graduates will be more satisfied with their practical skills and attributes. Respondents from firms who employ university graduates are 172% more satisfied than firms with no hospitality graduates. Age and education bear no significant effect on this satisfaction model, but respondents without hospitality degrees are more likely to be satisfied (O.R. 2.84, $p < 0.05$) than those without university degrees. Whereas experience plays no significant role, heads of business units experience a 259% increase in the odds of satisfaction with hospitality graduates' practical skills and attributes as compared to c-suite executives ($p < 0.01$). Moreover, the perceived gap is significantly associated with satisfaction, as in the last model, in the expected direction: the lower the perceived gap, the higher the satisfaction. Our Nagelkerke's R^2 value for this model is slightly lower than the one above at 21.8%.

Considering that the literature on Romanian Tourism Education is quite limited, we hope our research will be a modest contribution to the Romanian body of literature and implicitly other developing nations looking to advance their hospitality industries as a way to stimulate their economies. The primary beneficiaries of our research are tourism educators in Romania and other developing nations who need to continue their invaluable work – both as pedagogues and researchers – and contribute to the development of their economies. The findings of our research should also provide policy makers with added rationale for investing in formal tourism education in Romania and other developing nations with the confidence that those investments will yield the desired outcomes in due time. Finally, we trust our research will serve as an additional motivator for young people who are contemplating a formal degree in hospitality and especially for the students who, already in a formal degree program, are considering abandoning it.

7. Conclusion, limitations and future research

Given the dynamic changes taking place in the global economy, a developing nation such as Romania has limited options for its economic development. Integration within the European Union has proven to be a mixed blessing, with over four million of its able body citizens leaving and taking with them their financial contributions and the national competitive advantage of low wages. As stated in the introduction, the tourism industry is an admirable developmental alternative with both economic and social benefits. Fortunately, Romania has the natural premises to develop a robust tourism industry along with the necessary EU funding, but it has to increase the quality of its services. The hypothesis of our study was weather formal, university-based education was a better alternative than on the job training. We can conclude with a relatively high degree of confidence that employees that poses a formal university degree perform better than those who do not. Our research supports studies that has elevated the critical nature of hospitality education (see Tea Balčdigara, Vlado Galičić, Marina Laškarin. 2011; and Bartoluci, Hendija and Petračić, 2014).

Unfortunately, slightly over 50% of surveyed respondents do not currently employ a single hospitality degree graduate. This area is of concern, as there is a gap between perceived employer satisfaction with graduates and the utilization of this critical human resource. There is undoubtedly a grim prognostic for the young generations of Romanians and their economic outlook (Cocorada, Farcas and Orzea, 2018; Martelli, 2018). Also, there will be a societal burden that Romanian society and many other European nations will bear if such a vast underclass of unemployed youth continues to grow (Russell and O'Connell, 2001; Papadopoulos, 2016; Tosun, 2017). Closing this gap between secondary education, higher education, and the tourism industry is one of the most critical areas of focus and yet one of the most promising areas for economic and community success (Blake et al., 2008; Baum, 1996, 2006, pp. 130–136; Thomas and Long, 2000).

The authors hope that this research will offer the Romanian tourism community – theoreticians and practitioners alike – an incentive in their quest to develop the human resources in their sector. The first step is an objective and constructive analysis of the current situation; problems need to be perceived as opportunities; otherwise, the entire community will focus on what it does not have, not what it does. This paper sought to explore for the first time to the knowledge of the authors, the perceptions among hospitality industry managers and owners of hospitality education program graduates, and the correlates predicting positive perceptions. The two domains of satisfaction that were analyzed included the theoretical knowledge of graduates as well as the practical skills and attributes of this same population. Even with the limited funding for formal educational in Romania (Văduva, 2016), there seems to be traction among institutions of higher education that are producing satisfactory graduates in terms of theoretical knowledge and practical skills for the current ranks of Romanian hospitality industry leadership. Moreover, even with the plethora of universities offering multiple types of degrees in this industry (Stoian, 2016), industry leaders are seemingly comfortable with the current crop of alumni from these varied and diverse programs. This information represents positive, and previously unknown, news. This paper is especially timely

given the recent declaration by CSES (2016) in describing the gaps in the provision of tourism education program graduates.

Limitations are a normal part of this exploratory research but bear mentioning. Information is missing for the actual characteristics of hospitality graduates. Furthermore, as stated by numerous publications (WTO, 2007), there are significant gaps in the knowledge of the actual skills and competencies being offered at various educational institutions that are not measured within this study. Given this paper's analysis, the gap is both perceived and real, at least according to study respondents. Future research is required in order to understand the pipeline of educational experiences into the workforce as perceived by current managers. In the absence of disaggregated statistical data, the information on skills and competences is exclusively based on the interviews and anecdotal evidence. The requirements for skills and competences in Romanian tourism need to be understood in a broader, socio-economic context. (CSE 2016; pg. 32).

Future research topics should include, but not be limited to the (1) communication and collaboration practices between practitioners and educators; (2) alternative tourism education alternatives including online education; (3) availability of EU funds for tourism education vs. infrastructure development and (4) the stimulants of entrepreneurial behavior in the tourism sector.

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Appendix A. Supplementary data

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