

ISSUES ON TOURISM AND MARINE RESOURCES' EMPLOYABILITY: A challenge for higher education?

Sofia Teixeira Eurico

Fernanda Oliveira

Sílvia C. Gonçalves

Sónia Pais

Polytechnic Institute of Leiria

ABSTRACT: This paper reports to the findings of a study conducted on a Higher Education Institution (HEI) by considering the strengths of 'Tourism and Marine Resources' courses and employability opportunities. For students and society a core aspect of higher education regards the process of entering the labor market and this influences students' options when choosing a specific course and a HEI. The paper reports on the results of a recent survey conducted at the School of Tourism and Maritime Technology, in Portugal, to students from Tourism and Marine Resources' related courses. Students were asked mainly about issues related to job experience, links between the HEI and the market and the process of getting a job, in order to understand the institution's role as far as preparing students for future employment. Findings indicate that Tourism students (52.5%) have considerably more training experiences than Marine Resources' students. Furthermore the former have also shown a greater willingness to work abroad, wide spreading their professional opportunities. The conclusion is that this subject challenges HEIs as it enhances the importance of reinforcing students' awareness to the training experience and to attempt to profit from the diversity of areas offered by the national and international markets when guiding them in this choice. **Keywords:** employability; higher education; tourism; marine resources; human resources.

RESUMEN: El presente artículo analiza las conclusiones de un estudio realizado en una Institución de Enseñanza Superior, considerando las carreras de 1er. ciclo del área de Turismo y de recursos marinos y cuestiones alusivas a la temática de la empleabilidad. En la verdad, el proceso de entrada en el mercado de trabajo representa para los estudiantes y para la sociedad un aspecto central en lo que respeta la Enseñanza Superior, por influir en las opciones de los estudiantes en la escoja de una carrera específica y de una IES. Los resultados obtenidos se refieren a una pesquisa realizada recientemente en la Escola Superior de Turismo e Tecnologia do Mar, en Portugal, en el cual se cuestionaron estudiantes finalistas de diplomaturas de Turismo y de Recursos Marinos. Estos fueron invitados a responder a cuestiones relacionadas con la experiencia de trabajo, con las relaciones entre IES y el mercado de trabajo y con el

Sofia Eurico (sofia.eurico@ipleiria.pt), **Fernanda Oliveira** (foliveira@ipleiria.pt), **Sílvia Gonçalves** (scgoncalves@ipleiria.pt) and **Sónia Pais** (sonia.i.pais@ipleiria.pt) are teachers at the School of Tourism and Maritime Technology, at the Polytechnic Institute of Leiria – Portugal. Sofia and Sónia are members of the Tourism Research Group – GITUR, Fernanda is a member of the Research Centre for Identity(ies) and Diversity(ies) – CIID and Sílvia is a member of the Marine Resources Research Group – GIRM and of the Marine and Environmental Research Centre – IMAR. They all belong to the work group – Employability for ESTM – coordinated by Sofia, who is also Co-Editor-in-Chief of the *European Journal of Tourism, Hospitality and Recreation*.

proceso de obtención de un empleo, con la finalidad de comprender el rol de la institución en su preparación para un futuro empleo. Los resultados indican que los estudiantes de Turismo (93%) realizan con más frecuencia programas de prácticas en comparación con los estudiantes de Recursos Marinos. Además, los primeros demuestran más disponibilidad para trabajar en el extranjero, ampliando sus oportunidades profesionales. La principal conclusión a que se llega es la de que esta temática se coloca como un reto para las instituciones de la enseñanza superior, pues coloca en relieve el rol en la sensibilización de los estudiantes para las cuestiones de la experiencia de trabajo y en su orientación considerando la diversidad de los áreas profesionales ofrecidos por los mercados nacionales e internacionales. **Palabras clave:** empleabilidad, enseñanza superior; turismo; recursos marinos; recursos humanos.

RESUMO: O presente artigo analisa as conclusões de um estudo realizado numa Instituição de Ensino Superior (IES), considerando cursos de 1º ciclo da área do Turismo e dos Recursos Marinhos e questões alusivas à temática da empregabilidade. Na verdade, o processo de entrada no mercado de trabalho representa para os estudantes e para a sociedade um aspeto central no que diz respeito ao Ensino Superior, por influenciar as opções dos estudantes na escolha de um curso específico e de uma IES. Os resultados obtidos reportam a uma pesquisa recente realizada na Escola Superior de Turismo e Tecnologia do Mar, em Portugal, no qual se inquiriram estudantes finalistas de cursos de Turismo e de Recursos Marinhos. Estes foram convidados a responder a questões relacionadas com a experiência de trabalho, com as ligações entre a IES e o mercado de trabalho e com o processo de obtenção de um emprego, a fim de compreender o papel da instituição na sua preparação para um futuro emprego. Os resultados indicam que os estudantes de Turismo (93%) realizam com maior frequência programas de estágios em comparação com os estudantes de Recursos Marinhos. Além disso, os primeiros demonstram ainda uma maior disponibilidade para trabalhar no estrangeiro, ampliando as suas oportunidades profissionais. A principal conclusão a que se chega é a de que esta temática se coloca como um desafio para as instituições de ensino superior, pois evidencia o seu papel na sensibilização dos estudantes para as questões da experiência de trabalho e na sua orientação tendo em conta a diversidade de áreas profissionais oferecidas pelos mercados nacionais e internacionais. **Palavras chave:** empregabilidade; ensino superior; turismo; recursos marinhos; recursos humanos

INTRODUCTION

The issue of Employability has gained an increasing role in the HEIs' agenda, mostly due to the political and educational frameworks which pressure them to prepare employable students. The National Strategic Reference Framework (NSRF) for the period 2007-2013 underlines the issue of the qualification of the Portuguese people for the "promotion of high and sustained levels of economic and socio-cultural development" (CSF III Observatory, 2007: 5), which is partly a responsibility of HEIs. On the other hand, the Bologna Process stresses the importance of qualifying European citizens, promoting skills and knowledge that will emphasize their mobility and the internationalization of careers (Bologna Declaration, 1999).

Moreover, the increasing numbers of unemployment within the European countries - EC27 – namely as far as young people (Mestre, 2012) are concerned reinforce the importance of preparing students for being employable individuals.

Therefore, the overall aim of the paper is to bring to the debate new information on the rationale and on the understanding of the employability issues that challenge higher education as far as Tourism and Marine Resources are concerned. It will be looking particularly to

the perspectives of the students, offering a realistic picture of their employability opportunities and the HEI position in the process of preparing them to enter the labor market.

In the national context, the economic activities related to Tourism and Marine Resources benefit from the country's geographic position and natural characteristics. Bathed by the Atlantic Ocean, Portugal presents an extended coastal area and two important groups of islands, the archipelagos of Madeira and Azores. The Economic Exclusive Zone (EEZ) of Portugal is already one of the largest in Europe and efforts are presently in course to further extend it. Wider EEZs are advantageous for the countries, namely because this enhances the potential for both Tourism and Fisheries. Fisheries *per se* present a low weight on the gross domestic product of Portugal (Valério, 2006). However, this is one of the most important economic activities in the country because fish and seafood are essential components of the Portuguese diet and it is known that one job at sea generates several jobs in land (*e.g.* food industry, trade market, transportation, naval industry).

In this context, Marine Resources (living and non-living) are fundamental for Portugal and represent an important forcing function that has been driving the Portuguese economy, society and policy for centuries and the scientific research and development in the last decades (Santos, 2009).

As for Tourism, the recognition of its growing importance within the global economy has led to an urgent need of qualifying human resources with suitable skills that fit the Tourism industry's various sectors. Recognized as the industry with the most credit in terms of employability in the world, Higher Education Institutions (HEI) are pressured to create top-level academic studies that integrate public and private sectors of the Tourism industry which is characterized by a constant dynamism, therefore demanding "a much greater emphasis on the shape, nature and contribution of travel and tourism as the world's largest industry and job creator" (Lipman, 1996, p. 92).

In this way, and considering these two strategic and potential economic activities, the HEI which is being studied – the School of Tourism and Maritime Technology - Polytechnic Institute of Leiria (ESTM/IPL) offers six undergraduate courses in the Tourism field and two related to Marine Resources and this paper presents the result of a study carried out during the spring months, which analyzes undergraduate courses in these two fields.

The paper will start with a descriptive account of Tourism and Marine Resources in Portuguese Higher Education, followed by a brief outline of the employability concept and employability opportunities in Tourism and Marine Resources. Next, methodological issues and the results of a survey applied to last year students are reported and key findings are discussed, including recommendations for HEIs.

The context of Tourism and Marine Resources in Higher Education

The new era of Tourism, integrating recent and complex activities, with consumers becoming more and more demanding, presenting intrinsic relationships with environmental concerns and a level of competition prompted by increasingly sophisticated destinations, demands requirements and responsibilities to the various entities responsible for the success of the dynamics of Tourism. These may be linked to Tourism scientific knowledge, innovation issues, skills of professionals, development of local, regional and national destinations, stressing the crucial importance that the academic and training institutions play in this scenario (Fayos-Solá, 1995).

Reviewing the Tourism industry as a complex system of intensive hand labor, requiring a significant number of human resources, several authors agree with the need for well-trained graduates, leaving this responsibility largely to the HEIs since the lack of professional qualification necessarily compromise the achievement of quality standards in services (Barron, 2007; Baum, 2007; Engberg, 2007; Ayres, 2006; Catramby & Costa, 2004; Busby, 2003; Hjalager, 2003; Tribe, 2003; Charles, 1997; Choy, 1995).

This means that educators, particularly at the tertiary level, must constantly analyze the real needs of the markets, so that they may prepare future professionals in order to advise and equip them with key elements such as confidence, creativity, ability to question and reflect, productivity, among others, that will allow them to contribute effectively to the sustainable development of this sector.

Portugal has equally felt this pressure to prepare adequate human resources for the different sectors of the Tourism industry and since 1988 several undergraduate courses on Tourism studies have been introduced in the Portuguese Higher Education Public system (Table 1). These courses have been created within the field of Tourism but distinguished according to other scientific areas of knowledge. Thus, using the categorization proposed by International Standard Classification of Education (ISCED) the great majority is included in the scope of Personal Services (Hotel and Catering, Tourism and Leisure) and the rest in the Business and Administration area (Marketing and Management), illustrating the multidisciplinary character of Tourism (Table 1). ESTM has also followed this tendency, offering six courses in Tourism fields spread out through the different areas mentioned above as shown in Table 1.

Table 1. Undergraduate degrees related to Tourism studies in the Portuguese Higher Education System – 2010

Higher Education Institution	Denomination of the course
University of Algarve	Hotel Management Tourism Leisure Management and Tourism
University of Aveiro	Tourism
University of the Azores	Tourism Nature Guides
University of Coimbra	Tourism, Leisure and Heritage
University of Évora	Tourism
University of Trás-os-Montes	Tourism
Polytechnic Institute of Bragança	Tourism Guide Interpreter
Polytechnic Institute of Beja	Tourism
Polytechnic Institute of Castelo Branco	Hotel Management Tourism Management
Polytechnic Institute of Cávado and Ave	Tourism Activities Management
Polytechnic Institute of Coimbra	Tourism Ecotourism
Polytechnic Institute of Guarda	Tourism and Entertainment Hotel Management Restaurant Industry and Catering
Polytechnic Institute of Leiria	Tourism Tourism and Recreation Leisure Management and Business Tourism Tourism and Hotel Management Marketing for Tourism Restaurant Industry and Catering
Polytechnic Institute of Portalegre	Tourism
Polytechnic Institute of Santarém	Nature Sports and Active Tourism
Polytechnic Institute of Tomar	Tourism and Cultural Management
Polytechnic Institute of Viana do Castelo	Tourism
Polytechnic Institute of Viseu	Tourism Tourism, Cultural and Patrimony Management Tourism Information
School of Hospitality and Tourism of Estoril	Hotel Management Tourism Management Tourism Information Tourism Information and Tourism Entertainment Cookery and Food production Leisure Management and Tourism Entertainment

Source: Authors (based on Information obtained in DGES (<http://www.dges.mctes.pt>))

As for Marine Resources, although the ocean and its resources are crucial for Portugal, Higher Education on Marine Resources is clearly under dimensioned. Dias (2003) stated that senior technicians with a multidisciplinary background on Marine Environment were almost absent in Portugal and that was HEIs' responsibility to fulfill this gap. Nowadays, only 4 institutions, representing 14% of the Portuguese HEIs, have undergraduate courses related with the Marine Environment (Table 2). In fact, only 2 of the mentioned HEIs clearly assume this vocation, integrating organic units with this designation: ESTM/IPL and the Faculty of Marine Sciences and Environment of the University of Algarve.

The Portuguese HE system offers to undergraduate students broadband courses in Marine Sciences and in Sciences of the Aquatic Environment, and courses mainly related with biological sciences (see Table 2 for some examples). These can afterwards be complemented with more specific and narrower curricula at the post-graduate level (*e.g.* masters in Aquaculture at ESTM-IPL). ESTM has two undergraduate degrees related with Marine Resources: "Marine Biology and Biotechnology" and "Food Engineering". In Portugal, the degrees in Food Engineering have been traditionally included in HEI with Agricultural Schools. Notwithstanding, at ESTM-IPL one of the strengths of this course is the transformation and preservation of seafood products, exploring the potentialities and synergies between food engineering and living marine resources caught in fisheries.

Table 2. Undergraduate degrees related to Marine Resources in the Portuguese Higher Education system – 2010

Higher Education Institution	Denomination of the course
Polytechnic Institute of Leiria	Food Engineering Marine Biology and Biotechnology
University of Algarve	Biology Environmental Engineering Marine Biology Marine Sciences
University of Aveiro	Marine Sciences
University of Porto	Sciences of the Aquatic Environment

Source: Authors, based on Information obtained in DGES (<http://www.dges.mctes.pt>)

UNDERSTANDING EMPLOYABILITY

The concept of employability, understood very broadly, reports ones' ability to adjust to the professional needs and recent dynamics of the new labor markets. The discussion around the term employ-

ability (Knight & Yorke, 2003; Harvey, 2001; Little, 2001; Hillage & Pollard, 1998) presents different approaches, but all of them underline the increasing importance it has been gaining when considering the employability of graduates of higher education (Hinchliffe, 2006).

Moreover, the relationship established between higher education, government agencies, employers and other stakeholders appears to be more and more complex, and these last three expect from the first a real contribution to the development “of a variety of complex ‘skills’, which – they argue – enhances the stock of human capital and makes for national economic well-being” (Knight & Yorke, 2003, p. 3).

If in a not too distant past, the frequency of higher education was a *sine qua non* condition for a smoothly professional integration, nowadays this issue has gained visibility when confronted to the high rates of graduates’ unemployment. The increasing number of students enrolling in higher education, associated with the expansion and diversification of the Portuguese higher education offer contributed to that, in Portugal, as is the case in other countries, the time period for obtaining a first job has enlarged considerably and a greater difficulty in the incorporation into structured careers has equally been felt.

The career path is now a set of jobs and positions and it necessarily implies increased demands of adaptability, flexibility and lifelong learning (Alves, 2003). Job mobility is now a constant in the career of young graduates. According to a recent study authored by Crossman & Clarke (2010, p. 609), the encouragement by the institution for student participation in exchanges of experiences will certainly provide “valuable additions to a graduate’s portfolio of employability skills”.

The relationships established between higher education and the employability of its graduates may therefore be said to have gained a considerable important role since the 90s reflecting an era of rapid changes as far as knowledge required for each job is concerned, a time of severe structural changes as for the countries’ workforce, also characterized by the introduction and spread of new technologies, and a period of globalization and *Europeanization* of the economies and societies (Eurico, 2011).

Employability opportunities in Tourism and Marine Resources

The range of employment opportunities in the tourism industry focuses on seven products characteristic defined by the Tourism Satellite Account (CEC/OECD/UN/WTO, 2001):

1. Accommodation services;
2. Food and beverage services;
3. Passenger transport services;
4. Travel agency, tour operator and tourist guide services;
5. Cultural services;

6. Recreation and other entertainment services;
7. Miscellaneous tourism services.

In addition, there is a wide range of related areas, essential for the development and competitiveness of this industry, such as marketing, tourist information, certification, new technologies, among others.

In Portugal, the latest data in terms of direct employment in tourism indicates that in 2008 there were 420,391 people employed in tourism characteristic activities, representing 8.2% of the total national employment (Turismo de Portugal, 2011). In the context of the OECD, this value places Portugal in the top five countries in which employment in tourism is considerably representative considering general employment on the whole (OECD, 2010), only exceeded by Spain (12.7%), New Zealand and Italy (both with 9.7%) and Hungary (9.2%). The tourism characteristic activities that receive a larger number of employees are food and beverage (49.1%), transport of passengers (21.3%) and accommodation (15.2%).

Marine Resources might represent a vast array of employment opportunities for HE graduated students. Graduates may pursue a career in innovation companies related with the use and/or the exploration of marine resources, namely in biotechnology, aquaculture, fisheries or food industry. A job as technician or advisor in public institutions or in non-governmental organizations (ONGs) related to fisheries, to marine and coastal areas management, and natural conservation, like for instance public aquariums, marine thematic parks and marine reserves, represent also important opportunities. Research and development, as well as education and training institutions are also relevant career opportunities for the graduates that are especially geared for these activities.

The increase of touristic and recreational activities related with the marine environment observed in Portugal in recent years aroused the interests of Portuguese, but also foreign entrepreneurs for Eco touristic activities. This uncovered a very important and increasing niche market for Marine Resources related graduates that includes for instance diving centers and companies specialized with the organization of natural programs such as the observation of marine life (*e.g.* cetaceans).

METHODOLOGY

In this study, all the students from third year level were invited to answer a questionnaire. Our sample was therefore composed of Tourism and Marine Resources courses' students that were in the morning classes on April 14. The target population was 319 students, and the final sample was 160 individuals, corresponding to a sampling rate of 50.16%.

A pilot study was conducted with 21 third year students of one of the Tourism courses to make sure that respondents understood the

questionnaire in a consistent manner to what was intended. The questionnaires were applied using an online survey website, the Encuesta-Facil (<http://www.encuestafacil.com/Home.aspx>).

The final questionnaire instrument was divided into three major parts, with a total of 34 questions. The first part (question 1 to 21) dealt with graduates' background, including closed questions related with social-demographic characteristics, education, work experience and socio-economic situation. The second part (question 22 to 27) was linked to the students' reasons for choosing the course and the school and their appreciation of several items that influenced their choices. The last part (28 to 34) inquired the students about the concept of employability, training experiences and perspectives and expectations as to their future professional job. On the second and third parts, some questions were measured on a 3 and 5-point Likert scale, to measure satisfaction and agreement levels and an open question was also included in order to know students preferences about future jobs. As far as measurement is concerned, we considered existing scales used in similar contexts and previously validated by other authors (Eurico, 2011; Martensen *et al.*, 2000).

The statistical treatment of the data was performed using the Statistical Package for the Social Sciences (SPSS), version 18.0. Descriptive statistics (frequency distributions) were computed to examine the socio-economic features of the sample. A multivariate analysis was also performed in order to understand the relationship between different variables, firstly analyzed through the descriptive statistics. At the multivariate level, contingency tables were used in order to analyze pairs of variables and verify independency tests, through Pearson's Chi-Squared (Swinscow, 1997), with $\alpha=5\%$ (significance level):

$$\chi^2 = \sum_{j=1}^m \sum_{k=1}^n \frac{\left(n_{jk} - \frac{n_{j.} n_{.k}}{N} \right)^2}{\frac{n_{j.} n_{.k}}{N}}.$$

RESULTS AND DISCUSSION

The analysis of the results was made through frequencies distribution applied to all the variables elected for the study. Besides this approach, multivariate analysis, through the Pearson Chi-Squared Test, were also used to observe the non/existence of independency among variables.

Therefore, firstly and based on descriptive analysis, the obtained data shows that the majority of the students are studying Tourism courses

(76%), comparing to the 24% who are attending Marine Resources courses. In terms of gender and age (**Table 3**), 71.9% are female and their ages are mostly between 20 and 23 years old (66.9%).

When asked whether the process of entering the labor market was important in the choice of the HEI, the vast majority of students said that this factor is important in this decision process: 45.6% of students consider it “very important” and 29.4% “important”.

Table 3. Sample description: gender and age

Gender	n	%	Age	N	%
Feminin	115	71.9%	20 to 23 years	107	66.9%
Masculin	45	28.1%			

Source: Authors

Among the various reasons given in the questionnaire, 34.4% choose the factor “Course with good employment rate” as a reason for choosing the attended course. With the obtained results, we found that employability has a considerable weight in the selection phase of the HEI.

As for the degree of satisfaction that students show regarding the HEI and the course attended, the following table contains the distribution of the obtained answers given for the options “Very dissatisfied”, “Dissatisfied”, “Indifferent”, “Satisfied”, “Very Satisfied”, and “Doesn't apply”:

Table 4. Degree of satisfaction that students give to different items regarding ESTM and the attended course (%)

	Very dissatisfied	Dissatisfied	Indifferent	Satisfied	Very Satisfied	Doesn't apply
Entrance in the labor market	4.4%	19.4%	17.5%	42.5%	5.6%	10.6%
Institution's interactions with the business sector	5.0%	28.1%	20.6%	36.3%	4.4%	5.6%
Student's interactions with the business sector promoted by the institution	8.8%	30.0%	20.0%	31.3%	5.0%	5.0%
Guidance for successful integration into the labor market	8.1%	26.9%	13.8%	41.9%	5.6%	3.8%

Source: Authors

As for the degree of satisfaction that the student gives to ESTM and to the link between the attended course and the labor market, the students' responses are fairly positive (Table 4): 42.5% report being "satisfied" and 5.6% "very satisfied", 19.4% said they were dissatisfied and only 4.4% feel "very dissatisfied". The obtained results also show that 17.5% of the inquiries answered "indifferent" and 10.6% "Doesn't apply". The analysis made shows that students' expectations with regard to the connection of the chosen course and the process of getting a job when choosing the institution/course is frequently taken into account during the course. Probably due to the contact with colleagues who have already graduated and passed on their experience at the level of employability, due to the information provided by teachers and course coordinators and because of the approaching end of the course which probably conveys a wider awareness of the early career.

The question about the degree of satisfaction that the student gives to ESTM, and the attended course in relation to guidance for successful integration into the labor market, has identical results to those presented in the previous question. There is a slight increase in the number of students who claim to be "dissatisfied" or "very dissatisfied": 41.9% report being "satisfied" and 5.6% "very satisfied", 13.8% chose "indifferent"; 26.9% say they are dissatisfied and only 8.1% feel "very dissatisfied". It appears thus that the slight variation of dissatisfaction regarding the results may reveal gaps in the process of preparing students for employment as far as the HEI is concerned. Therefore, a greater investment of HEIs in this area could mean an increase in student satisfaction.

When asked about the level of satisfaction regarding the attended course and the institution's interactions with the business community 36.3% answered "satisfied" and 28.1% chose "dissatisfied". As for the students' involvement with the business community, promoted by the institution, 31.3% answered "satisfied" and 30.0% chose "dissatisfied". About 20% of students chose "indifferent" on both issues. Despite the slight difference in the observed values, it turns out that the obtained results for dissatisfaction of students is higher when compared with the previous topics. This is also an aspect to be considered by HEIs in their training strategy.

When students are asked to express their agreement or disagreement on the statement: "Employers are interested in hiring students of this institution" most students (58.1%) indicated they were still unsure. About 30% of the students agree with the statement, and only about 13% of the students disagree. The origin of these results may have to do with their relative immaturity in relation to this matter.

Students do not seem very motivated to the practical component/training during the academic experience as only 70 students, from the 160 respondents, reported having had a training experience during graduation.

Table 5 Variables crossed with “area of study”

Variables	Pearson Chi-Squared Test
Factors for choosing the school:	
“Entrance in the labour market (employability)”	0.859
Students reason for choosing the attended course:	
“Course with good employment rate”	0.053
Degree of satisfaction that students give to ESTM/course attended in terms of:	
“Entrance in the labor market”	0.145
“Institution’s interactions with the business sector”	0.576
“Student’s interactions with the business sector promoted by the institution”	0.806
“Guidance for successful integration into the labor market”	0.519
Degree of agreement in terms of :	
“Employers are interested in hiring students of this institution”	0.810
“During the course did you experience any internship situation?”	0.000

Source: Authors

Secondly, contingency tables’ analysis have been used, through the independency test of Pearson Chi-Squared, in order to understand if there are relationships among different variables (**Table 5**) and the areas of study that should be considered. The results show that for a significance level (α) of 5%, all the crossings obtained a p value higher than 0.05, which means that there are not relationships between the variables, except for the variable “During the course did you experience any internship situation?” when crossed with the “area of study” (**Table 5**).

Table 6: Crosstabulation “Area of study” vs “During the course did you experience any internship situation?”

During the course did you experience any internship situation?			No	Yes	Total
Area of Study	Marine Resources	n	32	6	38
		% within area of study	84,2%	15,8%	100,0%
	Tourism	n	58	64	122
		% within area of study	47,5%	52,5%	100,0%
Total	n		90	70	160
	% within area of study		56,3%	43,8%	100,0%

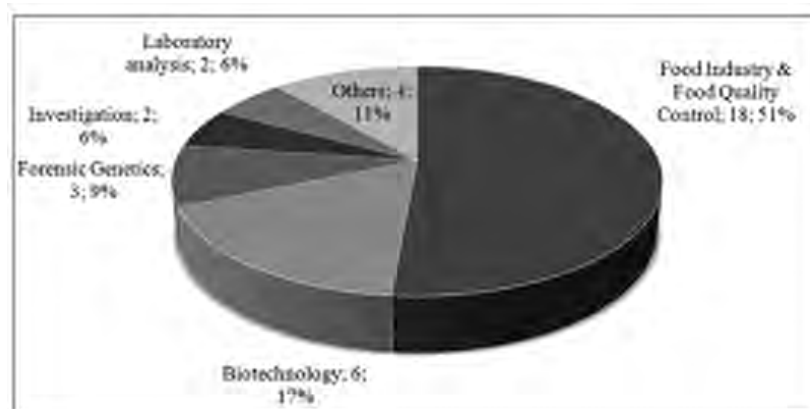
Source: Authors

As showed in the table, the relationship between area of study and intention to attend an internship was confirmed by the results obtained in the Pearson Chi-Squared test (= 0.000). **Table 6** shows the results obtained when crossing this variable with the area of study, indicating that students in Tourism courses seem to be more motivated to attend internships as 52.5% reported having attended it during graduation, while on the Marine Resources related courses only 15.8% answered yes to this question.

When asked about the areas of interest to begin a career, Tourism students (78%) chose hospitality for their first training experience, reducing the wide offer of the Tourism industry. The results also show that despite some concern shown by students to the issue of employability, the vast majority do not consider the training experience as an initiator and determinant element in the process of entering the labor market. The fact that internships are not paid in general, may also be a reason for demotivating students to look for them.

Still, Tourism students have shown to be more motivated for this practical component of their school career. This may be due, on the one hand, to the wider range of job opportunities in the tourism industry for internships and, on the other hand, to the very practical nature of courses related to Marine Resources which ends out replacing the need to seek other experiences in the labor market. The obtained results for the Marine Resources students is consistent with what usually happens in this area, in which students tend to seek internship experiences only after completing their graduation.

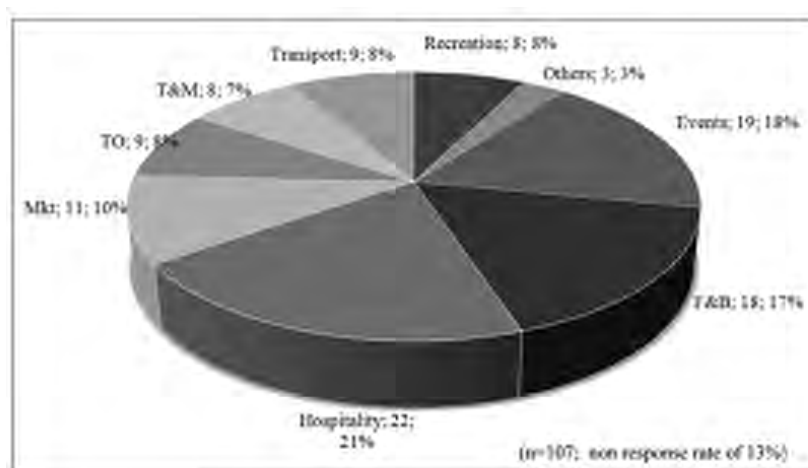
As far as the areas of greatest interest to start the profession are concerned, 51% of Marine Resources students focus their preferences in the “Food Industry & Food Quality Control”, followed by “Biotechnology” with 17% (where 2/3 specify the area of Pharmaceuticals Biotechnology), Forensic Genetics with 9% and “Investigation” and “Laboratory analysis” both with 6%. The option “Others” includes “Microbiology”, “Health”, “Marine Ecology” and “Consultancy” (**Figure 1**). The high interest by food industry and food quality control could be explained by the high attractiveness that this sector has been showing in recent years, given the growing concern and obligation to develop procedures to ensure quality and food safety. This reality has created a wide range of job opportunities, presenting itself as a very attractive area for students.



Source: Authors

Figure 1. Marine Resources students' distribution according to their job references

Regarding the courses associated with Tourism, **Figure 2** highlights eight areas of interest for future professional experiences. The most frequently mentioned are “Hospitality” (21%), “Events” (18%) and “F & B” (17%), representing 56% of responses. In a second group, there are five areas with a similar weight percentage (between 10 and 7%), including “Marketing”, “Recreation”, “Transport”, “Tour Operators” and “Tourism & Management”. The option “Other” (3.3%) comprises two responses with respect to consulting and education. The diversity of the areas gathered meets the reality of the tourism industry, particularly as regards the characteristics of tourism activities, referred to in subparagraph 3.1. Furthermore, the reference to some additional areas of Tourism, such as marketing, management and consulting show a strong correspondence with the courses offered by ESTM in the Tourism area (see **Table 1**).



T&M: Tourism & Management; F&B: Food & Management; Mkt: Marketing; TO: Tour Operators Source: Authors

Figure 2. Tourism students' distribution according to their job preferences

A further analysis of this issue also shows that Tourism and Marine Resources students still elect different job opportunities for their future, considering their graduation, disregarding the school's vision that emphasizes the sea as its main element. It seems to be lacking an overall vision, both from the students and the institution itself, of the potentialities of the sea for both areas as regards their future employment. In fact, only some Marine Resources students mentioned the job preferences linked to the sea/marine resources. Tourism students seem to neglect the diversity of sea-based employment.

When asked if their employment preferences fall on national territory, international or both, 60.0% of students answered “both”, 32.5% said “in country” and only 7.5% said “in the international territory”. The analysis of questionnaires seems to indicate that students

in Tourism courses have a greater willingness to work abroad. In fact, of the 122 who responded to the questionnaire, 23.8% said having a preference of employment “in the country,” 66.4% said “both” and 9.8% “in the international territory”. On the other hand, from the 38 students attending Marine Resources related courses, 60.5% said having a preference of employment “in the country,” 39.5% said “both” and no student answers “in the international territory”. Analyzing the comparative results obtained in two areas - Marine Resources and Tourism - these can be explained by the profile of the Tourism courses’ programs and the tourism industry itself, which framework includes a globalization perspective as far as its organization is concerned and its expansion and influence throughout the different world regions.

Moreover, Tourism students’ motivation for a work experience abroad can be explained by other reasons, such as: a greater contact with different languages and cultures during the course; the multinational nature of many businesses in the tourism sector; the role of teachers and coordinators of the Tourism courses when acknowledging and motivating students for different opportunities and realities abroad.

It was also our aim to check if the issues discussed above were influenced by the course areas attended by the students. However, only on the question “During the degree did you have an internship experience?” there was an association between the two variables under study (area of under graduation and internship experience). This fact is consistent with the findings of the previous analysis and allows us to conclude that Tourism students are more willing to attend training experiences.

CONCLUSION AND RECOMMENDATIONS

The theoretical framework of the study focuses on the importance of the issues of employability in the context of higher education, particularly in preparing students for the integration into the labor market, explaining to them the dynamics of the professional world, warning them for the importance of internships, advising them on the possibility of a career in an international context, among others.

This global vision applies to the restricted case of the HEI studied, which should attempt to strengthen effective relationships with the business community in order to establish a training plan consistent with the real needs of the market and facilitating the students entry into the labor market. Human resources’ qualification and their preparation as employable individuals are now effective responsibilities of the HEIs.

The obtained results in the empirical component of the study identify a sample with distinct characteristics that reflect the nature of the attended course. The setting that is presented to these students when they leave the educational sphere is somehow a result of the work

done during the course of study at the level of employability. In this paper, the students show interest in this subject and start to reveal that when they have to choose a course considering career opportunities and the HEIs influence among the industry and later on when, during the course, they search for training situations. The students' opinions on issues of employability regarding the courses attended is adjusted during the course revealing a more informed and realistic view on the procedural difficulties of entering the labor market, as a result of a greater contact with the industry throughout the course, with teachers and colleagues already graduated.

Although the levels of satisfaction in the field of employability present themselves, in general, satisfactory, when faced with more specific aspects such as the relationship between the HEI with employers, students have expressed some discontent and even ignorance about the role of ESTM in this field. Therefore, this is an area where ESTM should act either by actually being done poorly or not having been sufficiently effective in the dissemination and implementation of initiatives that are valued and recognized by students.

On the other hand, from the point of view of the training experience the results show two distinct realities which reflect the different nature of the scientific area level courses, Science and Tourism. In fact, the Tourism industry is based on a dynamic of interpersonal relations that would be difficult to reproduce in a classroom context, contrary to what happens in Marine Resources courses. Thus, it will be up to HEIs to motivate and create conditions to encourage students to attend Tourism trainings during their academic path. Furthermore, considering that Tourism students value the experience of trainings, HEIs could choose to include in the courses study plans a mandatory training, extinguished from the great majority of graduation courses due to the Bologna Process. This option would most probably reinforce students' skills, value their academic experience and satisfy their expectations as far as the links between the HEIs attended and the industry are concerned.

To sum up, this subject challenges HEIs as it enhances the importance of reinforcing students' awareness to the training experience and to attempt to profit from the diversity of areas offered by the market when guiding them in this choice.

Furthermore, it is considered that the results on the choice of a career in the international arena, particularly valued by students of Tourism, are justified by the explanation advanced previously associated with the specific nature of each of the areas.

Results show that HEIs should follow market trends, work this information in the context of the classroom, acknowledging students with a realistic perception of the labor market. As for ESTM, the adopted

strategy should be maintained and developed so that students' first expectations when choosing the school and the course, as far as employability is concerned, may be completely satisfied.

Despite the potential of Marine Resources, from the point of view of Science, of Tourism and that of the perception of job opportunities associated with the sea, and that are well reflected in the regional reality in which ESTM is included (nautical tourism, maritime archeology, interpretation and observation of nature, among others), the truth is that these factors do not seem to be valued by the surveyed students. This is particularly noticeable with the group of students from Tourism courses.

Considering the potential of these two areas, Tourism and Marine Resources, our analysis is that ESTM should invest in the combination of these two areas in its wider project in order to serve the industry needs and to underline the sea element. In fact, it could be an option to establish effective links between the strengths of both areas in order to profit, on one hand, from the scientific knowledge created in the school context and, on the other hand to explore the wide range of opportunities that the sea offers.

As for future research works it would be interesting to analyze other relationships within the inferential statistical analysis, to check if there are any observable response patterns when variables such as gender and training experience are crossed with employability variables.

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