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Job requirements in the hospitality industry: Technical or general skills? The dilemma for academic education

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Abstract

This paper identifies the professional profiles of graduates for job positions in the accommodation sector, in particular, whether specific skills of the position or skills related to the tourism sector are preferred. A conjoint design is applied, which presents the more realistic context of asking respondents to evaluate potential "product" profiles. Managers of accommodation facilities expressed their preferences on four hypothetical profiles of candidates for five job positions: receptionist, administrative clerk, human resources professional, web marketing specialist, revenue manager. Six attributes (academic degree and level, among others) are used to describe the candidate profiles. The data were analysed through a multinomial logit model and an ordinary least squares regression model that highlighted the preferred characteristics of the candidates for the considered job positions. The main findings show that recruitment in accommodation facilities looks at specialized skills and academic programmes appropriate for the specific job positions. Knowledge of the desired characteristics of graduates, which could affect a possible recruitment, is important for designing effective academic curricula.

Keywords: hospitality occupations, job requirements and competencies, choice-based conjoint, recruitment process, higher education

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Introduction

In the tourism sector, human resources (HR) play a vital role in maintaining a competitive position in the global market. However, the theme of HR in tourism is still presented in the literature in a fragmented way (Ballantyne, Packer & Axelsen, 2009; Baum, 2007, 2015; Baum, Kralj, Robinson & Solnet, 2016). The long held notion that tourism is characterized by low skills (Baum, 2006) has only been very gradually overcome, with an acceleration due to new theoretical approaches and paradigms, such as the "experience economy" (Pine & Gilmore, 1999). In fact, in recent years, there has been an increasing interest in education for the tourism sector for a number of reasons: 1) greater awareness of the need for skilled personnel able to satisfy tourists looking for increasingly intense experiences; 2) greater attention by universities to collaborate with firms; and 3) the higher education system has recognized the importance of the tourism sector for both research and education activities.

Some studies have tried to understand whether there are gaps between the needs of the tourism industry and the knowledge acquired in educational pathways (Chiru *et al.*, 2012; Connolly & McGing, 2006; Cristou, 1999; Jahuari, 2006; Jaykumar, Leena & Kandappan, 2014; Lupu, Tănase, & Nica 2014; Ruetzler *et al.*, 2014; Zopiatis & Constanti, 2007). Of concern is whether the educational skills offered by the Italian education system and, in particular, universities actually meet tourism operators' needs. Knowing the reasoning underlying employers' hiring decisions can enable higher education institutions to help graduates acquire the skills they need to be successful in the labour market. With respect to the tourism sector, it might be of worth to understand whether enrolling in a study programme which emphasizes skills in tourism may come at the expense of developing skills for specific job positions, when such specialized skills are offered by other academic programmes (e.g., accounting).

The aim of this research is to determine employers' criteria and preferences in selecting graduate candidates for specific job positions in the hospitality sector. This study is part of a multi-centre research project ELECTUS—Education-for-Labour Elicitation from Companies' Attitudes towards University Studies—which involves several Italian universities and different economic activities (Fabbris, Scioni & Vaglini, 2015). Graduates' profiles are described by some attributes typically listed in a curriculum vitae (CV), such as the field of study, the graduation mark (or final grade) and work experience. Each attribute is intended to describe the skills acquired by the graduates during their study and professional background, including soft skills, which are so important for companies (Andrews, J., & Higson, H., 2008; Humburg & Van der Velden, 2015; Wessels, Du Plessis & Slabbert, 2017). For example: a degree programme in Humanities allows the development of more generic skills (in addition to specialized knowledge and skills), such as the ability to communicate, write and critical thinking; a degree course in Engineering facilitates the capacity of problem analysis, practical application of knowledge, and so on.

So, a conjoint experiment was conducted to simulate employers' screening of graduates' CVs in order to decide which applicants to invite for a job interview. The reader should bear in mind that the study is based on a sample circumscribed to a specific area, the Tuscany region, where tourism is an important driver of the regional economy, producing almost 12% of GDP (Irpet, 2019). Moreover, this study is one of the first investigations into how hotel managers choose their employees.

Literature review

The literature on tourism explicitly recognizes HR as a fundamental component of tourist services and tourism business performance (Baum, 2019; Bitner, Booms & Tetreault, 1990; Elsharnouby & Elbanna, 2021; Nickson, Baum, Losekoot, Morrison & Frochot, 2003; Marques, Correia & Costa, 2018; Sardo, Serrasqueiro, & Alves, 2018; Schneider, Hayes, Lim and Raver, 2003). However, academic research

considered the workforce theme as less relevant compared with other research topics like environment and technology (Ballantyne *et al.*, 2009; Baum, 2007, 2015; Baum *et al.*, 2016; Baum & Szivas, 2008; Ladkin, 2011). Academic contributions are often diluted within several fields of study like management, education and service design (Baum *et al.*, 2016), and the workforce is sometimes considered a constraint ("being given a certain workforce") rather than a key driver of competitiveness (Ballantyne *et al.*, 2009; Nickson, Baum, Losekoot, Morrison & Frochot, 2003; Poole & Jenkins, 1997; Varela González & García Gorazo, 2006).

This general situation is partly due to the belief, not yet completely overcome, that the tourism industry is characterised by low and/or prevalently "technical" skills (Baum, 2007; Shaw & Williams, 1994; Westwood, 2002; Wood, 1997). This "low skills paradigm" lasted for a long time before being gradually integrated with the new concepts, such as "emotional intelligence" (Goleman, 1995; Hochshild, 1983; Khetjenkarn & Agmapisarn, 2020; Marques, Correia & Costa, 2018) and "economy of experience" (Pine & Gilmore, 1999). Thus, the importance of HR skills has been more and more recognized (Baum, 2006). Hochshild (1983) stated that tourism employees are required to "manage emotions" for which "soft skills" are more generally required (Westwood, 2004; Ritzer, 2004). Moreover, with the paradigm of the "economics of experience" (Pine & Gilmore, 1999), concepts move from service quality and customer satisfaction to customer delight (Ankor, 2012; Johnson, 1987; Purohit & Purohit, 2013). In this respect, Bharwani and Jauhari (2013) and Carbone and Haeckel (1994) recognized "experience intelligence" (i.e., the interactive skills and interactions with other individuals) as a relevant factor to make customer experiences memorable. In the literature, the definition of "hospitality intelligence" is a broad and varied set of skills in tourism and it does not only refer to technical aspects (Aydin, Leblebici, Arslan, Kilic & Oktem, 2005; Bharwani & Jauhari, 2013; Goleman, 1995).

Finally, two other concepts emerge from the literature that reveal the need for higher skills in tourism. Nickson, Baum, Losekoot, Morrison and Frochot (2003) and Warhurst, Nickson, Witz and Cullen (2000) defined "aesthetic skills" as the ability to respond according to fashion or, especially in luxury hospitality structures, to make good conversation about politics, music, sports or the like. Furthermore, Ang *et al.* (2007) and Earley and Ang (2003) recognized the importance of the ability to enter into a relationship with different cultures ("cultural skills").

Moving on to empirical analysis, numerous studies have been carried out to detect the new skills necessary for success in tourism, more particularly in hospitality. Many scholars have highlighted the relevance of a positive approach to working for managers (Akrivos, Ladkin & Reklitis, 2007; Chung-Herrera, Enz & Lankau, 2003; De Vos & Soens, 2008; Kay & Russette, 2000; Lent, Brown & Hackett, 1994; Ng & Pine, 2003). Examples include taking initiative, willingness to accept challenges, enthusiasm and energy, and resilience. Other important skills include the ability to negotiate, to effectively communicate and to actively participate in the development and maintenance of social networks with colleagues and customers (Akrivos *et al.*, 2007; Chung-Herrera *et al.*, 2003; De Fillippi & Arthur, 1994; Kay & Russette, 2000; Ladkin & Juwaheer, 2000; Munar & Montano, 2009; Ng & Pine, 2003; Sewell & Pool, 2010; Wessel, Du Plessis & Slabbert, 2017).

The growing attention paid to skills by scholars is not matched with an equally extensive literature on the aspects of candidates' curricula preferred by employers (Ruetzler *et al.*, 2014; Shariff, Kayat, & Abidin, 2014). This lack of information has a strong impact on the training of graduates looking for employment in tourism, as well as on the importance of technical and/or general skills associated with the sector and deriving from the educational path and work experience. In other words, the knowledge and skills associated with a given job position go beyond those strictly required to operationally perform

that role (i.e., the technical skills). This leads to two fundamental questions. The first one concerns the importance employers attach to the different areas of expertise (technical and general), and their ability to discriminate between them during the hiring process. The second question is aimed at the ability of university programmes to take into account the skills required in the tourism sector.

Regarding the first question, the importance of technical and general skills has been widely discussed in the recent literature, particularly with reference to the hiring process, although not specifically for the tourism sector. Results do not always agree: some authors recognize the predominant role of the technical skills (among others, Elish, O'Connell & Smyth, 2010; Heijke, Meng & Ris, 2003; Humburg & van der Vender, 2015), while others highlight the role of soft, or general, skills (among others, Andrews & Higson, 2008; Moy & Lam, 2004; Teijeiro *et al.*, 2013). For example, with reference to accounting graduates, some studies highlighted that even for such a specialized programme, graduates with more generic skills seem to have more opportunities (Jackling & De Lange, 2009; Gammie, Gammie & Cargill, 2002; Mohamed & Lashine, 2003; Smith, Maguire & Han, 2018), while other research pointed out the importance of technical skills (Altarawneh, 2015).

An old dilemma concerns the alternative between study and work experience in the field. A recent work (Kong, 2015) pointed out that previous work experience, although considered more important by students than employers, is not a "must" to look for a job, because employers consider the required experience to be very embedded. However, this point is controversial as other studies argued that professional expertise is associated with a higher probability to be employed (van der Velden & Allen, 2011; Humburg & van der Velden, 2013, 2015).

With reference to the adequacy of academic programmes, for some decades, scholars have tried to understand whether there are gaps between the needs of the tourism industry and educational programmes, although minor attention has been devoted to university education (Connolly & McGing, 2006; Cristou, 1999; Jahuari, 2006; Zopiatis & Constanti, 2007); it is only in recent years that this has been the subject of in-depth analysis, also with reference to various countries (Airey, 2008; Kučerová & Gúčik, 2017; Lupu, Tănase, & Nica 2014, Studnička &Plzáková, 2017; Vodenska & Mileva-Bozhanova, 2017). The persistent vision is that tourism is not an independent discipline, and, consequently, educational programmes integrate business content, humanities and social sciences, resulting in a lack of any "threshold" concepts and content considered indispensable to more clearly qualify the academic offer more (Hsu, Xiao & Chen, 2017). In fact, and at least in Italy, the complexity of the tourism sector that calls for professionals with cross-sectoral skills has led to the design of academic programmes permeated by economic, historical, humanistic and socio-psychological subjects. Perhaps it could be more appropriate to provide graduates specialized in the various disciplines (accounting, marketing, etc.) though without a focus of knowledge on tourism.

In reality, employers' recruitment processes consider all these aspects (training, skills, experience, etc.) to be not only individually relevant, but also their combination in "profiles", which are examined and selected "jointly". In fact, employers are faced with "packages" of knowledge and experience from which they must choose in the two phases of the selection process (Humburg & van der Velden, 2015): screening of the graduates' CVs and job interview. In the second stage employers bring out and/or assess the skills of the candidates directly, in the first stage they must decide on the basis of a mix of elements that are predictive of the knowledge, technical skills and general skills (such as, educational qualifications, final grade and work experience).

Recognizing the link between curriculum attributes and the knowledge and skills possessed by candidates, recent literature has focused, through the technique of conjoint analysis, on understanding how employers behave during this hiring process both in general contexts (Biesma, Pavlova, von Merode & Groot, 2007; Humburg & van der Velden, 2015) and specifically in the tourism sector (Ruetzler, Baker, Reynolds, Taylor & Allen, 2014). Conjoint analysis is part of the wider field of experimental studies, although it is still rarely used. Sun, Law and Zhang (2019) conducted a recent review of experimental studies in the field of tourism, examining 91 papers retrieved from Science Direct, Scopus, Web of Science (also integrated with Google Scholars). They reported that experimental studies in the tourism sector have been growing strongly in the last decade, although the methods applied are mainly limited to between subjects experimental design (Chou & Chen, 2014; Lindberg & Veisten, 2012). Conjoint experiments in tourism and hospitality sectors are still few, just 13 studies among the 91 examined.

The few existing studies conducted using conjoint methodology to investigate which candidates' attributes are favoured in a selection process, involving profiles generated by specific software on the basis of a limited number of attributes (educational qualifications, final grade, etc.) and levels (e.g., for qualifications – degree, master, PhD, etc.), have not given univocal results. Possible reasons are: attributes do not refer to a specific job (Humburg & van der Velden, 2015), even when they concern the tourism sector (Ruetzler, Baker, Reynolds, Taylor & Allen, 2014), or, conversely, attributes are specific for a given job position or economic sector and, therefore, results are not comparable (e.g., Di Stasio, 2014, for an entry-level position in the information and communications technology, ICT, sector). To the best of our knowledge, there are no comparative studies on the main job positions in the tourism sector.

Some significant job positions in the accommodation industry

Considering the skills needed by companies led to the identification of five job positions for the empirical analysis: receptionist, revenue manager, human resource professional, web marketing specialist, and administrative clerk. In our opinion, it is interesting to investigate these job positions as they include both traditional roles characterized by broad tasks (i.e., receptionist) and more innovative and specialized roles (i.e., web marketing specialist, revenue manager). Furthermore, as this survey is part of the wider ELECTUS survey research project, the job positions have been selected trying to maintain a common framework, albeit addressing different economic sectors. In detail, the aim was to include one entry-level job position for each the following areas: administrative, human resource, marketing, information technology (IT), and commercial.

The receptionist

Interest in front office staff stems from the importance and range of activities performed (Baronene, 2010). The front office worker position holds a plurality of lists: *a consultant*, who directs customers towards products and services; *an analyst*, who can understand customer needs and turn them into buying motivations; a *marketing expert*, who is a collector of input from the customer; a *producer*, as a process supervisor for the provision of the service; and a *mediator* between customers' and company's interests. Baum and Devine (2007), reporting the studies of Vallen and Vallen (2000), stated that front office staff need both soft and technical skills, such as interpersonal skills, communication skills, ICT and foreign languages. In addition, Baum and Odgers (2001) stressed that recruitment is guided by the search for these skills and not for specific training or work experience.

The revenue manager

The professional profile of the revenue manager has acquired increasing prominence in the last 25 years (Anderson & Xie, 2010). The revenue manager, whose task is to maximize revenue by identifying the right price at the right time for the right customer (Kimes, 1989; Kimes & Wirtz, 2002), increasingly has a strategic professional profile that is not merely operational (Abrate & Viglia, 2016). The job assumes knowledge of market demand, price policies, accounting and information management techniques (Upchurch, Ellis & Seo, 2004). Cetin, Demirciftci and Bilgihan (2016) identified four categories of skills: personal (social and cognitive), generic, technical and ethical competencies. A wide range of skills – from behavioural to operational aspects – is also recognized in Kimes (2011). Revenue managers' skills have now become even more complex because of the increasing use of social media instruments (Noone, McGuire & Rohlfs, 2011). Cornell University School was the first college to offer university courses in revenue management, in 1994, with a practical and interactive approach (Anderson, Kimes & Carrol, 2009). Today, the training of this profile is mainly provided by professional master's programmes.

The human resource professional

The human resource professional is "competent" to the extent that they can create a competitive advantage for the organization (Pfeffer, 1994; Ulrich, 1987). Consequently, Ulrich, Brockbank, Yeung and Lake (1995) identified three clusters of skills: *knowledge of business, human resource functional expertise* (i.e., staffing, performance appraisal, development) and *managing change* (i.e., vision, communication skills, influence skills, problem solving). Sincoff and Owen (2004) indicated the human resource strategic role, compensation, equal employment opportunity, organizational development and communication. Apparently, the skills depend very much on the areas of responsibility assigned to the human resource professional and by the training system in the country. In a cross-country study, the World Federation People Management Association has highlighted the difficulty to define unique competencies and, accordingly, has drawn well-defined indications for the curriculum of a human resource professional (Brewster, Farndale & von Ommeren, 2000).

The web marketing specialist

The web marketing specialist embraces a plurality of activities (Batinić, 2015) using ICT, together with traditional practices, to achieve marketing results (Chaffey, Ellis-Chadwick, Mayer & Johnston, 2009) in terms of customer acquisition, maintenance and satisfaction. The core features are: "consumer databases, interactivity, the ability of direct response to all forms of marketing activities and measurement of the effects of marketing activities" (Batinić, 2015, p. 35). These activities have been creating increasing opportunities for graduates in business administration from the 1970s onwards (Mitchell & Strauss, 2001). Hence, many business schools include them in their academic programmes, with courses on database design, customer relationship management, and website design (Mitchell & Strauss, 2001). Universities would therefore be justified in creating programmes entirely dedicated to web marketing, with a higher number of credits for such technical aspects (Mitchell & Strauss, 2001).

Questions pertaining to the web marketing skills required by the market and issued by university programmes are part of the more general debate on the requirement of IT skills in hospitality (Abduljabbar Al-Taai, 2019; Cobanoglu, Dede & Poorani, 2007; Garbin Praničević & Mandić, 2020; Gonzalez, Gasco & Llopis, 2019; Ip, Leung & Law, 2011). On this point, there are still conflicting research findings between the demand for specialized skills and certifications of IT, and an integration of knowledge and skills of IT in the various professional areas (front office, marketing, etc.) (Cobanoglu *et al.*, 2006).

The administrative clerk

The traditional figure of the clerk in the tourism sector is increasingly enriched with areas of responsibility and skills due to the following factors: 1) a growing need to monitor internal and external variables (Cegarra-Navarro, Martinez-Martinez, Ortega Gutiérrez & Leal Rodrìguez, 2013; Harris & Mongiello, 2001; Phillips & Louvieris, 2005); 2) the emergence of new issues, such as instances of social responsibility that require companies to measure their performance and draw up sustainability reports (Coles, Fenclova & Dinan, 2013; Moscardo & Benkendorff, 2015; Singal, 2014; Torugsa, O'Donohue & Hecker, 2013); and 3) stringent regulatory and technological adjustments. New skills and knowledge are, therefore, required for both new hires and experts (Hartman, Bentley, Richards & Krebs, 2005). In particular, the technological skills should be integrated into traditional educational paths related to office work (Hartman *et al.*, 2005). The options for university training are between creating functional curricula, specific to accounting, programming and control, or the enhancement of generic skills on hospitality, complemented by practical activities related to office tools and applications.

In conclusion, universities face challenges to adequately respond to the recruitment requirements of the hospitality sector. The alternatives are between a possible combination or choice between two types of programmes offered: a "functional programme" with skills developed in specific areas of the company (marketing, IT, human resource management) and a "market/product-based programme", that is, niche courses on some specific sectors, such as hospitality and tourism.

Methodology

The graduate recruitment process is commonly divided into two steps (Humburg & van der Velden, 2015). In the first step, employers screen graduates' CVs in order to decide which applicants to invite for a job interview. Secondly, after the job interview, employers make the hiring decision. In this first phase, without directly knowing them, employers have to rely on the candidates' attributes described in the CVs, speculating on some possible correlation with the required characteristics for the job position in question (Humburg & Van der Velden, 2015).

Taking into account the five job positions described in Section 3, the first step of the recruitment process (i.e., the curriculum-based selection) is simulated by a conjoint experiment. Despite requiring longer times than traditional surveys based on simple questionnaires, this methodology produces more informative outcomes. Rather than directly ask respondents what they prefer or what characteristics they find most important in a "product", conjoint analysis presents a more realistic context of asking respondents to evaluate potential "product" profiles.

Respondents were presented with some hypothetical job applicants (specifically four alternative profiles) who differed in important attributes. By asking respondents to choose the hypothetical graduate they preferred, they were forced to trade off some characteristics for others. This trade-off situation simulated a very realistic decision-making environment, which is often missing with a standard survey questionnaire. To refine our analysis, respondents were asked to rate the four profiles on a 1 to 10 rating scale.

Conjoint analysis is a widely used method for analysing choice processes (Green & Srinivasan, 1978); it resembles an individual's decision process and is based on a decompositional approach, in which the alternatives presented to the respondent are described by a set of characteristics (attributes). In choice-based conjoint analysis, each respondent should choose one or more alternatives in a small predesigned set, called "choice set". Thus, choice-based conjoint analysis involves discrete choices instead of

preference judgements, such as in traditional conjoint analysis. Under this framework, the utility U_{ij} of the alternative j for the individual i can be expressed as:

$$U_{ij} = V_{ij} + \varepsilon_{ij} \tag{1}$$

where V_{ij} is an observed component, such as the evaluation of the alternative, and ε_{ij} is the error term. The *i*-th individual will choose the *j*-th alternative if the associated utility is greater than the other alternatives' utilities in the same choice set S (McFadden, 1974):

$$U_{i,j} > U_{i,a} \ \forall \ a \neq j \in S. \tag{2}$$

If it is assumed that ε_{ij} are independently and identically distributed Gumbel-distributed variables with o location parameter, the probability p_{ij} that the individual i chooses the alternative j is given by:

$$p_{ij} = \frac{\exp(V_{ij})}{\sum_{a}^{A} \exp(V_{ia})}.$$
 (3)

The V_{ij} are assumed to be linear functions in the K attributes describing the alternative j-th; thus, $V_{ij} = \sum_{k=1}^{K} \beta_{ik} X_{ijk}$, where X_{ijk} assumes o/1 according to the absence/presence of the k-th attribute in the alternative. The model is multinomial logit, and the unknown parameters are jointly estimated via the maximum likelihood method (Louviere, Hensher & Swait, 2000).

Rating data (i.e., value judgements attributed to the alternative) can be analysed using ordinary least squares (OLS) multiple regression. Even if data are collected on a non-metric scale, OLS multiple regression can be considered a reliable estimation procedure. Indeed, it was demonstrated in the literature (Carmone *et al.*, 1978; Cattin & Witting, 1982), that it provides parameter estimates similar to a non-metric estimation procedure such as MONANOVA.

Both in the case of the logit model and the OLS model, from the parameters β s, the relative importance of the attributes can be estimated. By considering the vector β_k , comprising the part-worth utilities of the n_k levels of the k-th attribute, the importance index RI_k of the attribute k is:

$$RI_k = 100 \frac{\max(\beta_k) - \min(\beta_k)}{\sum_{w=1}^{K} (\max(\beta_w) - \min(\beta_w))}$$
(4)

From the analysis, the ideal profile is identified by considering the combination of the attribute levels with the maximum utility.

Regarding the use of experimental and discrete choice models in analysing the recruitment process in the tourism industry, the recent review by Sun, Law and Zhang (2019) found only the paper by Ruetzler, Baker, Reynolds, Taylor and Allen (2014). In contrast to Ruetzler *et al.* (2014), the present study reports the results of a wider investigation, and it is aimed at typical job positions of the hospitality industry. Moreover, the academic programme is intended as a proxy of the specific skills possessed by the candidate.

Empirical analysis: research questions, survey design and data collection

Specific aims of the conjoint analysis

In the comparison of the five job positions – as done by Humburg and van der Velden (2015) and differently from Villosio (2010) – only CV attributes that were the result of graduates' human capital

investment were included, excluding variables such as age, gender or ethnicity to make the employers' evaluation value-free and avoid hypothetical bias. The six attributes were: Degree Programme, Degree Level, Final grade, Foreign language skills, Work experience, Willingness to travel (Table 1).

Three specific issues were considered.

1) The central point of the research concerns the extent to which a course in tourism is attributed differing importance in consideration of different job positions. As discussed so far (see the literature review), the complexity of the tourism sector is also reflected in the hospitality industry, which also requires specialized professionals, so much so that some activities are outsourced (e.g., revenue management). Furthermore, our interest is to understand whether, in the selection of CVs, the accommodation industry prefers specialized degree courses rather than a degree in tourism. The analysis provides the extent to which a study programme is preferred over another; thus, even competitive academic programmes can be identified. As this study considered specific job positions, it is important to appreciate the importance of the match between the field of study and the job tasks. It is likely that graduates with a closer match have a higher probability of being selected because they may require a shorter period of training provided by the firm.

The types of degree programmes considered in the analysis included programmes that typically do not include topics useful for jobs in the tourism industry. On the other hand, this study is a part of a wider research on several economic sectors, in which the questionnaire had a minimal common structure. Therefore, it is expected that some academic degrees will not be selected by respondents who were informed about the educational objectives of the degree courses through a short description provided with the questionnaire (i.e., the description of the "classes"). In detail, in Italy, academic programmes sharing general educational objectives are grouped into "classes". Universities must comply with some national requirements for each class. Degrees belonging to the same class have the same legal value. With reference to tourism, the Italian university system provides a three-year first level (undergraduate) programme in Tourism sciences (class L15 Scienze del turismo), and a two-year second-level programme in "Design and management of tourist systems" (class LM49 Progettazione e gestione dei sistemi turistici). Analysing data from the 2016-17 undergraduate programmes, Giusti and Grassini (2017) identified four main curricula: 1) managerial studies; 2) art and humanities; 3) foreign languages and humanities; and 4) studies of territory (geographic information systems, agricultural economics, and social sciences). Two profiles characterized the master's programmes: one is more technical with informatics, geography, and managerial sciences, while the other is more traditional with managerial and law sciences, foreign languages, and economic history and theory. Moreover, it can be hypothesized that employers know the degree courses offered by the universities from already hired staff, as companies and universities share the same territory.

- 2) The discussed "low skill" paradigm that is still widespread in tourism, suggests investigating whether there is any preference for the first- or second-level degree. In this regard, some scholars suspected the concavity of the occupational production function with respect to individuals' skill level (Humburg & van der Velden, 2015). The HR position might be an exception, as a second-level degree might be a preferential requirement because the HR office can acquire more credibility and authority among the employees. However, Villosio (2011) found a very small difference offset by brief work experience.
- 3) Another concern was whether work or internship experience in the tourism sector is a preferential requirement for recruitment. Work and internship experience were tested separately in the model, as the jobs proposed are junior positions in the organization. From an employer's point of view, relevant work experience may not be only a signal of graduates' occupation-specific skills, "but also one of

general productive factors such as punctuality, attitudes towards hierarchical settings, and familiarity with work-life in general" (Humburg & van der Velden, 2015, p. 31). From the academic's point of view, an internship agreement gives more visibility of the university to the community. Moreover, it may identify potential subjects of common interest and could provide feedback concerning the quality of education and suggestions for curricula updating; however, the search for an appropriate internship may be a complicated task because host organizations have become extremely selective, especially if the internship will result in a hiring.

The other attributes (final grade, willingness to travel, knowledge of foreign languages) were included in the experiment to complete the evaluated profiles. Moreover, the final grade may be considered as a proxy of the graduates' capacity to learn. Finally, a willingness to travel and foreign languages may be less important in a back office job (e.g., back office clerk).

Survey design and data collection

The survey constitutes a part of the multi-centre research project ELECTUS, which involves several Italian universities, to understand which characteristics employers value the most in the recruitment of young graduates. Several economic activities are covered within the project. The present survey, reserved for the tourism sector, was conducted using a computer-assisted web interviewing system. Data was collected using the Sawtooth Software that enables a choice-based conjoint experiment (Sawtooth Software, 2017).

Each respondent was asked to select the best among four possible profiles of candidates for each specific job position as the closest to the ideal candidate. Moreover, respondents were asked to assign a score between 1 and 10 to each profile they were called to evaluate. The attributes used to describe the possible candidates are reported in Table 1. The number of attributes on the profiles is six, which is well below the limit of 10 attributes advised in the literature in order to limit the information processing burden on respondents (De Shazo & Fermo, 2002). The attributes and their levels were selected because they can be considered a result of graduates' human capital investment, based on a literature review and the elicitation of experts' opinions through a focus group. The levels were chosen to be realistic and informative and to provide enough variations. The focus groups were conducted within the overall ELECTUS project and not just for the present analysis of the hospitality industry (see, for example, Mariani, Marletta & Zenga, 2019). The focus group saw the participation of almost ten experts usually involved in hiring processes, such as entrepreneurs, employers, HR managers and representatives of employers' organizations. After a brief description of the research project and the methodology applied to carry out the survey, the focus group developed around two questions. The first one intended to investigate precisely which characteristics in the CV are evaluated in selecting a candidate, while the second was aimed at understanding whether some company and/or employer attributes may influence the hiring process.

Table 2 shows a typical vignette with the four alternative profiles (the choice set) submitted to the respondents. The question was, "Imagine that you are interested in recruiting a person for the position of (...). Which of the four profiles displayed on the screen would you invite for a job interview as being the closest to your ideal candidate?" In addition, each respondent was asked to rate each profile in the choice set, using a 1 to 10 rating scale.

Table 1. Attributes and attribute levels

Attribute	# levels	Levels
Degree programme	10	Humanities, Education/Psychology, Tourism, Law/Political sciences, Economics, Statistics, Engineering, Maths/Computer science, Foreign languages, Communications
Degree level	3	First level, Second level, PhD
Final grade (66-110)	3	<95, 95–104, >104
Foreign language	3	Unable to engage in a dialogue with foreigners, Not fluent communication with foreigners, Fluent communication with foreigners
Work experience	4	No experience, Some experience (even internship), Some experience in tourism (even internship), Stable work for at least one year (even if not in the tourism sector)
Willingness to trave	l 3	Not willing, Available only for short trips, Even major transfers

The predesigned sets of four profiles were generated according to a near-orthogonal design (Sawtooth Software, 2017) through a heuristic algorithm called "Balanced overlap". It starts from the set of all possible alternatives and arranges them into choice sets according to the following principles: level balance (each level of an attribute is shown to respondents approximately an equal number of times), balanced overlap (a modest amount of level overlap among the alternatives in the same choice set was ensured), and orthogonality (attribute levels describing each alternative should be chosen independently of other attribute levels). No duplicate alternatives were allowed within the same task.

Table 2. Example of vignette submitted to respondents

Attribute	Profile 1	Profile 2	Profile 3	Profile 4
Degree	Tourism	Statistics	Education/	Maths/Computer
programme	TOUTISIII	Statistics	Psychology	science
Degree level	Second level	PhD	First level	Second level
Final grade	95-104	>104	>104	<95
Earaign	Unable to engage	Not fluent	Fluent	Not fluent
Foreign language	in a dialogue with foreigners	communication with foreigners	communication with foreigners	communication with foreigners
Work experience	No experience	Some experience in tourism (even internship)	Some experience in tourism (even internship)	Stable work for at least one year
Willingness to travel	None	Even major transfers	Only short trips	Even major transfers

A random design was implemented as it is more efficient in the case of asymmetrical designs (i.e., designs with attributes with different number of levels) as in our case (Kuhfeld *et al.*, 1994). Overall, 250 choice sets were generated, each one containing four alternatives. Level balance was respected. Each of the ten levels of the attribute "Degree programme" occurred between 9.9% and 10.1% times. Each level of attributes with three levels (Degree level, Degree grade, Foreign language, Willingness to travel) occurred between 33.2% and 33.4% times. Finally, each of the four levels of the attribute "Work experience" occurred between 24.9% and 25.1% times. Each respondent performed five choice experiments, one for each job position.

The survey was directed to accommodation facilities located in Tuscany with a minimum threshold quality for the service: three-star hotels and a similar analogous level for non-hotel firms. The population frame was derived by matching open data and the registry of the Chamber of Commerce of Tuscany's provinces. Preliminary contact with the companies was established via telephone; a call was needed to screen the companies and to obtain the email address of the reference person. The establishments were then contacted through the provided email address and presented with the research project and a link to the electronic questionnaire. Furthermore, reminders were sent by email but also directly by telephone.

Of the respondents, 218 (190 hotels and similar, and 28 other accommodation facilities) completed the questionnaire, with an overall response rate of 8.1% (10.5% for hotels and similar). The higher response rate for hotels and residences is because this kind of accommodation facility has a structured organization with various functional areas and is therefore suitable for contributing to the research project. In fact, many questionnaires were not filled in because the respondents stated that they did not have those job positions in their firms. This was also confirmed by the size of the accommodations participating in the survey: just 45.4% had less than 10 employees versus 84.8% of the reference population.

Table 3. *Personal characteristics of respondents*

Demographic characteristics	%
Gender	
Male	47.3
Female	52.7
Age	
<40	33.0
40-49	34.9
>50	32.1
Education level	
Up to the higher secondary level	56.o
University or graduates or post-graduates	44.0

Table 4. Characteristics of accommodation facilities involved in the survey

Characteristics of the accommodation facilities			
Type of accommodation establishment			
Hotels and similar	87.2		
Other accommodation facilities	12.8		
Customers' origin			
Mostly foreign	60.0		
Mostly Italian	40.0		
Presence of specific job positions			
Receptionist	96.3		
Administrative clerk	75.7		
Revenue manager	58.7		
Web marketing specialist	44.9		
Human resource professional	41.7		

The characteristics of the respondents are reported in Table 3, whereas Table 4 summarizes the structural features of accommodation establishments. A specific resource devoted to front office staff was present in almost all the accommodation facilities (96.3%) but it did not occur for the other job positions. Thus, there was a self-selection of respondents depending on the presence of the five job positions in the accommodation structure.

Results

Since each attribute level is equally likely to occur in the choice-based conjoint design, its relevance can be assessed by the proportion of times that profiles with that level have been chosen. Table 5 shows the most chosen programmes for the five job positions. An education in tourism is preferred for some of the tourism industry's typical job positions: receptionist, web specialist and revenue manager. However, an additional degree in foreign languages is indicated for receptionist, Communications for the web marketing specialist, and Economics for the revenue manager. By contrast, for two of the considered five positions, a Tourism education is not of worth: a degree in Economics is required for the administrative clerk, while a degree in Education or Psychology is indicated for the human resource professional.

These findings are more precisely expressed by the parameters of the estimated multinomial logit model (Table 5). McFadden's pseudo R² shows that the model fit is good, especially for the job position of receptionist. A degree in Tourism exhibits positive and statistically significant (at 0.05 level) *beta* values for the positions of receptionist, web specialist, revenue manager, and, to a lesser extent, human resource professional. Statistics, Engineering, and Mathematics/Computer science are unattractive for a front office position, while Humanities and Education/Psychology are not attractive for the administration and accounting staff. Overall, all study programmes submitted to entrepreneurs' evaluations were relevant for at least one job position in tourism, except Humanities and Engineering. This result appears reasonable, since these two degree courses, for different reasons, are not primarily aimed at the tourism sector. The attributes "Degree level" and "the willingness to travel" had no significant effect across job positions, so they were dropped from the table.

As expected, there is no difference among different degree levels, confirming the mentioned "low skills" paradigm. Moreover, not even the HR professional proved an exception. Since the results of this conjoint experiment can be read as a reflection of already implemented behaviours, this means that entrepreneurs in the accommodation sector do not look at all at the degree level.

The effect of the attribute "Degree grade" is significant in more technical roles like administrative clerk, web marketing specialist and revenue manager. However, on average, having good grades had no additional effect on graduates' probability to be invited to a job interview for the job positions of receptionist and HR professional. On the other hand, knowledge of foreign languages and the possession of work experience (or internship, and not necessarily in the tourism sector) were required for each of the considered job positions, confirming to some extent Kong's (2015) findings.

In addition, Table 5 reports the index of attribute importance. For the job position receptionist, the most important attribute is the knowledge of foreign languages, closely followed by the degree programme. By contrast, work experience and degree grade are much less important. Administrative clerk, HR professional and revenue manager are characterised, albeit with some differences, by high importance for the attribute degree programme, followed at some distance by work experience. In particular, the job position of HR professional has the highest importance placed on degree programme.

The job position of web specialist is characterised by closer levels of the following attributes: degree programme (at the first position), foreign language (at the second), and then work experience.

Table 5. Frequency of degree programmes (%), estimated parameters of the logit model, importance of attributes (%)

		Administrative	HR	Web	Revenue
Attribute/levels	Receptionist	clerk	specialist	specialist	manager
% frequency (bold: highe	est values)				
Degree programme					
Humanities	23.5	5.3	18.2	11.0	9.8
Education/Psychology	15.1	8.7	58.1	18.8	19.6
Tourism	46.1	29.9	36.0	46.7	51.2
Law/Political sciences	18.3	23.5	30.0	10.8	14.8
Economics	25.3	60.2	19.8	25.8	43.7
Statistics	14.3	29.6	17.1	24.7	30.8
Engineering	10.3	18.9	5.0	18.9	14.0
Math/Computer science	14.8	42.5	14.0	26.6	26.6
Foreign languages	48.4	19.0	15.1	27.0	19.0
Communications	31.3	16.5	41.1	39.5	22.4
Estimated parameters (l	bold: at least sign	nificant at 0.05 leve	el)		
Degree programme					
Humanities	-0.1347	-1.6 7 99	-0.2597	-1.1317	-1.3415
Education/Psychology	-0.6928	-1.2090	1.6213	-0.3226	-0.3069
Tourism	1.6602	0.4499	0.8026	1.2813	1.3586
Law/Political sciences	-0.3921	0.0737	0.4840	-o.8688	-0.4107
Economics	0.1563	1.7121	-0.2569	0.1253	1.0814
Statistics	-1.1405	0.5406	-0.3107	0.1151	0.4406
Engineering	-1,2128	-0.1150	-1.7730	-0.4198	-0.7467
Math/Computer science	-o.988 7	1.0475	-0.6482	0.2081	0.1907
Foreign languages	2.2059	-0.3228	-0.5350	0.1715	-0.1796
Communications	0.5392	-0.4926	0.8 ₇₅ 8	0.8415	-0.0857
Final grade (/110)					
<95	-0.2585	-0.1227	-0.1512	-o.43 7 8	-0.3894
95-104	0.0619	-0.1444	0.0287	0.1734	0.1543
>104	0.1964	0.2671	0.1225	0.2644	0.2352
Foreign language					
Unable to dialogue	-2.3893	-0.3898	-0.3562	-0.9317	-0.6725
Not fluent	0.4626	-0.1041	0.0113	0.1649	0.2126
Fluent	1.926 7	0.4939	0.3449	o. 7 668	0.4599
Work experience					
None	-0.8981	-1.0788	-o.93 7 8	-0.8380	-1.2187
Stage/work	0.0708	0.1793	0.3120	-0.0092	0.2234
Stage/work in tourism	0.4668	0.2692	0.2820	0.4914	0.4416
Work at least one year	0.3605	0.6303	0.3437	0.3559	0.5537

<i>ln L</i> (model)	-148.79	-216.40	-235.08	-231.95	-219.90	
ln L(o)	-302.21	-302-21	-310.53	-310.53	-300.83	
p-value LRT	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	
McFadden pseudo R ²	0.508	0.284	0.243	0.253	0.269	
Importance of attributes (%)						
Degree programme	35.8	53.1	60.1	39.4	43.3	
Final grade	4.8	6.4	4.8	11.4	10.0	
Foreign language	45. 2	13.8	12.3	27.6	18.2	
Work experience	14.2	26.7	22.7	21.6	28.5	

Table 6. Estimated parameters of the ordinary least squares model

Table 0. Estimated param	second of the orall	Administrative	HR	Web	Revenue	
Attribute/levels	Receptionist	clerk	specialist	specialist	manager	
Estimated parameters (bold: at least significant at 0.05 level)						
Degree programme						
Humanities	-0.325	-0.596	-0.371	-0.516	-0.622	
Education/Psychology	-0.262	-0.691	1.191	-0.266	-0.499	
Tourism	0.590	0.465	0.464	0.702	1.021	
Law/Political sciences	-0.096	0.082	-0.043	-0.323	-0.229	
Economics	0.210	0.992	0.141	-0.030	0.490	
Statistics	-0.060	0.130	-0.379	-0.162	0.395	
Engineering	-o. 7 80	-0.400	-0.733	-0.332	-0.261	
Math/Computer				0.050		
science	-0.310	0.542	-0.542	0.050	-0.084	
Foreign languages	0.715	-0.200	-0.327	0.314	-0.309	
Communications	0.317	-0.324	0.600	0.504	-0.069	
Final grade (/110)						
<95	-0.117	-0.029	-0.197	-0.202	-0.216	
95-104	0.062	-0.129	-0.015	0.090	0.119	
>104	0.055	0.159	0.212	0.112	0.097	
Foreign language						
Unable to dialogue	-1.185	-0.406	-0.374	-0.548	-0.442	
Not fluent	0,222	-0.047	0.170	0.098	0.046	
Fluent	0.963	0.453	0.205	0.451	0.397	
Work experience						
None	-0.399	-0.575	-0.652	-0.591	-0.732	
Stage/work not in						
tourism	-0.030	0.002	0.192	0.007	0.149	
Stage/work in tourism	0.193	0.080	0.113	0.315	0.264	
Work at least one year	0.237	0.493	0.348	0.283	0.320	
F-statistic	13.45	8.065	6.785	5.841	6.785	
p-value	<0.001	<0.001	<0.001	<0.001	<0.001	
Multiple R ²	0.240	0.159	0.138	0.121	0.138	

Considering the maximum *beta* estimate obtained by each attribute's level makes it possible to build the ideal profile for each job position. A *receptionist*, would have a degree in foreign languages (the degree in Tourism is the second best) as well as experience in the tourism sector. The *administrative clerk*, on the other hand, would have a degree in Economics with a high final grade (>104/110); this person would also be fluent in one or more foreign languages. The *human resource professional* would have a degree in Education or Psychology, be fluent in one or more foreign languages, and have work experience of at least one year, though not necessarily in the tourism sector. The *web marketing specialist* would have a degree in Tourism with a high final grade (>104/110), as well as work experience of at least one year, though, once again, not necessarily in the tourism sector. Finally, the *revenue manager* would have a degree in Tourism with a high final grade (>104/110) and work experience of at least one year (not necessarily in the tourism sector).

Estimates obtained from the OLS models (Table 6) confirm the main results of the choice-based conjoint analysis experiment. These results are not commented on because it would repeat information already provided. In addition, the rating conjoint experiment was applied mainly as confirmation of the results of the choice-based experiment.

These outcomes show that those who share the responsibilities of recruitment in accommodation facilities are aware of what university titles imply in terms of competencies.

Discussion and conclusions

The importance of HR in tourism has gradually imposed itself, both in the literature and on the awareness of entrepreneurs (Baum, 2019; Baum *et al.*, 2016; Elsharnouby & Elbanna, 2021; Marques, Correia & Costa, 2018). Entrepreneurs have become increasingly attentive to professionalism in the selection phase of recruitment; universities have become more careful in providing knowledge and skills in line with the new needs of the labour market (Hsu, Xiao & Chen, 2017; Ruetzler *et al.*, 2014; Sharma, 2019).

In this paper, we present the results of a survey carried out with 218 managers of the accommodation sector; they were asked to express their preferences in relation to four hypothetical profiles of candidates for five different job positions. For data collection, a conjoint design was applied, aimed at eliciting the characteristics of the ideal candidates for the considered job positions. The conjoint experiment presented in this paper required longer time than traditional surveys based on simpler questionnaires, but it produced more informative outcomes, as the task of choosing a preferred alternative is similar to what is actually done in the recruitment process.

A study of the perspectives of entrepreneurs who are selecting candidates for job vacancies may help bridge the gap between higher education and labour market; thus, the main objective of our research was to investigate which characteristics employers value the most when they recruit graduates in the accommodation sector.

The main findings show that the managers of the accommodation sector are able, in general, to associate applicants' competencies with vacancies. Consequently, it can be stated that entrepreneurs are aware of the competencies the titles of university degree programmes imply. Recruitment in accommodation facilities looks at specialized skills and academic programmes appropriate for specific job positions. One main goal was to discriminate between different academic programmes and assess whether a curriculum in tourism could meet the respondents' requirements, or, conversely, whether a specific specialization was preferred for a specific job position. The results strengthen the importance

of the degree programme for all job positions examined in the survey; a preference for graduates in Tourism is indicated in the case of web specialist, revenue manager and receptionist, while a degree in Economics is preferred for the administrative clerk, and a degree in Education/Psychology for the position of human resource professional. This confirms the results in Humburg and Van der Velden (2015), where the real advantage for hiring seems to be the complete correspondence between the degree programme and the position to be held (e.g. a marketing degree for a position in marketing); this is explained by the expectation of companies to reduce training interventions to a minimum. However, in the mentioned study, an imperfect answer to the required qualification is compensated by at least one year of work experience. A similar result emerges in our study, with reference to all positions considered, which confirms how, in general, professional expertise is associated with a higher probability to be employed (Allen & Van der Velden, 2011; Humburg & Van der Velden, 2013, 2015).

Results also show that recruiters can discriminate among academic degrees shown on CVs and evaluate the adequacy of degree titles for recruitment purposes and of other educational and experiential characteristics of graduates. No importance is attributed to degree level and to willingness to travel. This result is also largely in line with the research by Humburg and Van der Velden (2015); moreover, in the 2015 study, there were no substantial differences between the degree levels, although with some slight differences between the countries considered in the survey: in Italy for junior positions a first level degree seems to be preferred.

With reference to the graduation mark, the results of our study show that high degree grades are preferred for the more technical roles. On this point, the existing literature does not provide univocal results: Ruetzler, Baker, Reynolds, Taylor and Allen, (2014) found that the graduation mark was only important if it was in the top bracket. In Humburg and Van der Velden (2015), final grade seems to weigh more for some junior, but very qualified, positions. In other research (Baker & McGregor, 2000), it seems that a higher grade is always preferred to a lower one. Finally, a fluent command of English is very important for all the job positions considered.

The findings of this study provide insights for some specific job positions whereas other studies were mostly concerned with the preferences of employers during a planned or recently performed hiring. Furthermore, thanks to the five job positions considered, some considerations on the long-standing debate between technical and generic skills for the qualification of HR in tourism can be made.

The transversal competence of a receptionist is confirmed, consistent with the wide range of activities they perform (Baronene, 2010), for which extensive and general knowledge are required, among which the knowledge of foreign languages stands out. This explains the preference attributed to the degree in tourism, which testifies the importance of knowledge of the sector.

Regarding the position of revenue manager, the recruiters' choice of a degree in Tourism or Economics, together with knowledge of a foreign language and experience, seems to confirm the increasing role of strategy and professionalism in a profile that is not merely operational (Abrate & Viglia, 2016).

The profile of the human resource professional is consistent with a communicative and motivating role rather than with HR management tasks that still concern a few organizations (i.e., the more structured ones). This explains the preference for a humanistic degree with knowledge not necessarily related to tourism. In addition, the lesser importance attributed to language skills and final grade comparative to the other job positions, shows a widespread underdevelopment of HR activities across the organizations considered in the survey.

The job of administrative clerk requires specialized knowledge even if not rooted in the hospitality sector. This fact is explained by the clear preference for a degree in Economics.

Finally, when the specialist is faced with specific peculiarities of the sector, as in the case of the web marketing specialist, technical knowledge gives way to more general knowledge: degree in Tourism or Communication, supported by fluent English, a high final grade as well as previous experience.

The experiment carried out in this study also gives some suggestions to address the skills of graduates and for designing academic programmes more effectively. In particular, a high skill in foreign languages might enable a preference for graduates in tourism, even for the receptionist position. A study of the perspectives of entrepreneurs who select candidates for job vacancies and of the possibly inadequate competencies of graduates who apply for these vacancies may help bridge the gap between higher education and the labour market, trying to anticipate the skills needed in future markets. Universities can play a central role in this, being at the heart of the so-called knowledge triangle of education, research and innovation. In addition, entrepreneurs can participate from a concurrent perspective in addressing educational policies, in anticipating future skills and markets and in sustaining graduates in their employment. Conversely, owing to the structure of the curriculum in Tourism, it seems more difficult to provide specific skills for competing with a degree in Economics.

To the best of our knowledge, this is the first research paper to carry out an experiment with a choice-based conjoint methodology to examine managers' decisions in selecting graduates for job positions in tourism. This is particularly relevant due to the fact that there is still very little research on what employers prefer when hiring in the tourism sector. In fact, the literature focuses on skills required in the sector, but when employers make a selection, they are faced with an already predefined set of skills that candidates developed with study and experience: these "skills-packages" must adapt to the mix of job-related requirements. Knowing which package employers prefer is extremely important both for adapting educational and professional paths in order to increase the employability of graduates and to ensure the necessary development for tourism companies, by having adequate profiles available. The lack of knowledge explains the gaps that exist between the expectations of work in tourism and the skills provided by the university (Jaykumar, Leena & Kandappan, 2014; Lupu, Tănase, & Nica, 2014; Shariff *et al.*, 2014; Vodenska & Mileva-Bozhanova, 2017) as well as the not yet strategic role of HR in tourism (Baum, 2015; Baum *et al.* 2016).

The main limitations of this study are concerned with the reference population (accommodation structures of Tuscany). The high number of non-responses that occurred is not a real drawback as many refusals or incomplete data are justified by the fact that many accommodation facilities do not provide the job positions presented in the experiment.

These findings can be the starting point for future research concerning the assessment of the skills provided by degree programmes in Tourism and a comparison with other educational programmes, for instance, the fifth level in the related European qualifications system or the secondary school diploma. In fact, the non-significance of the degree level indicates consideration of non-academic programmes as well.

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