

Systematic Literature Review  
Education and Training in the Context of Changes in the Labor Market Induced by the  
Digital Revolution: A Case Study of the Hospitality Sector

Bayaz Mammadova  
Ph.D. Candidate  
University of Bath  
UK  
[bm818@bath.ac.uk](mailto:bm818@bath.ac.uk)

### Biography

Bayaz Mammadova gained her BA from the Glion Institute of Higher Education, and an MBA in Global Business, University of Coventry U.K. She is currently completing her doctorate at the University of Bath (U.K.) focusing on vocational and higher education, digitalization, and graduate employability. Mammadova has worked as a teacher at ADA University and was previously an experienced management professional in the hospitality sector, across Europe, the Middle East, and in Azerbaijan.

### Abstract

The digital revolution presents a vast array of development possibilities in differing industries. Higher education degrees in many fields, including hospitality, are challenged by changes in the labor market resulting from new technology and globalization (OECD, 2019). The notion of a graduate skills gap, dealing with the extent to which HEI's prepare graduates for future employment, is often discussed in the literature (e.g., Chigbu & Nekhwevha, 2022). Graduates with specialized degrees in hospitality are struggling to find and maintain employment as technology leads to more jobs becoming automated, leading to the simultaneous de-skilling, and upskilling of the workforce (Brown, Lauder & Ashton, 2011; Oesch, 2013). Such industry changes create a mismatch between skills being taught to graduates during highly specialized degrees, and the new job market demands. It also raises the question of whether generalized degrees are more applicable (CIPD, 2015).

### Literature Review

This literature review provides an overview of the current educational and industrial context for hospitality sector employability, including graduate perspectives on employability, credentials and qualifications, the impact of internships on graduate employability, and implementation of practice-based learning in real-life higher education learning. It is followed by an examination of existing and predicted trends within the hospitality job market, such as technological literacy and employability, the current graduate job market, and future skills' demands. This research paper also aims to show gaps within the current body of knowledge that this research tries to fill. The literature review is part of a larger research project using the Varieties of Capitalism framework to determine how technology and globalization transform graduate jobs in the hospitality industry, and to what extent specialized, professional degrees can meet occupational change.

The study follows a mixed methods approach looking at establishing labor force trends in four European countries with different institutional regimes. Quantitative approaches will show increases in some occupations and decreases in others, and trends within the hospitality sector about the educational profiles of workers, shifts in employment type, and conditions of employment. Further thematic analysis through qualitative interviews with educators, employers, and recent graduates will gather perspectives and opinions on potential gaps between skills demanded, and skills taught within HEI hospitality degree modules. The research intends to shed light on highly specialized sub-sectors in professional education and determine gaps in the curriculum of higher education institutions offering these degrees.

Keywords: Higher Education, Graduate Employability, Technology and Education, Vocational Education, Educational Policy, Educational Institutions

## Introduction

The concept of “employability” is widely discussed by authors, in the context of the hospitality sector, but lacks a clear consensus on meaning among researchers (Tsai, 2013). While employability is defined as a set of personal attributes, achievements, and knowledge that makes individuals more likely to find and retain work, some researchers argue that employment outcomes do not necessarily reflect employability, due to numerous factors influencing outcomes (Tsai, 2013). From the employer's perspective, employable graduates do not always guarantee high-performance (Brownell & Goldsmith, 2006). Demands from the hospitality and tourism industry for highly skilled professionals, coupled with government procedures, and shortages of workers with the right skills have led to reevaluation of academic institutions’ contributions to creating an employable workforce (Moreo, Green, & O'Halloran, 2018). This has resulted in a shift in HE curricula towards prioritizing employability, focussing on developing graduates with industry-relevant skills and competencies (Moreo, Green, & O'Halloran, 2018).

However, a growing disconnect exists between what educators, and employers perceive as critical competencies for employability in the hospitality industry (Raybould & Wilkins, 2006). Higher education institutions focus on academic and strategic competencies; employers prioritize operational elements of the job. There is significant variation in the academic and skill acquisition among students from differing schools and institutions, leading to variations in graduate skills and knowledges across the hospitality industry. Despite the customary practice of developing curricula in other disciplines, there is limited research on the aims, objectives, and values that influence the design of hospitality degree modules (Matlock et al., 2001).

## Employability in the Context of the Hospitality Sector

The hospitality and tourism industry is facing an issue in the attraction and retention of highly skilled professionals, therefore responding to the demands of the industry is paramount to the success of HE institutions (Solnet et.al., 2016). This is leading to a dramatic revision of HE curricula that puts employability at the top of their agendas (Huq & Gilbert, 2013). Tsai (2013) argues that whilst general education in the realms of history and literature may enrich the lives and personal development of vocational professionals such as chefs, auto-mechanics, and hospitality workers, this type of knowledge and education does not improve their professional skills.

## Moving from Learning for the Sake of Learning Towards Learning for Employment

Over past decades, the focus of academic institutions has been moving away from the moving away from primarily theoretical to practical approaches for technical and industrial graduates., towards a more practical approach to preparing graduates to serve in their industries of choice. The skills required for work in these fields and those that students leave university with, are often not aligned, resulting in a skills gap that is an issue for both employers and graduates. Industries prefer graduates who have a variety of social and problem-solving skills, above theoretical knowledge (Tsai, 2013) This shift shows that higher education today is actively moving towards processes that deliver employable graduates, while support a variety of learning and teaching styles (Jang et al., 2010). Research available on the subject is increasingly focusing on graduate competencies, with some researchers, such as Dhiman (2012) as well as Zehrer and Mossenlechner (2009) focusing specifically on the hospitality sector.

Hospitality in higher education is distinct from others, as it is an applied course that relies heavily on industry inputs for the sustainable development of the curricula (Barber et.al., 2011; Millar, Mao, & Moreo, 2011; Williamson, Wardle & Hasmi 2020). Whilst HE institutions focus more on the academic and strategic competencies of their graduates, employers believe that operational elements of the job should be prevalent (Greene & Saridakis, 2008; Wilton, 2011).

The academic and skill acquisition experiences vary from school to school depending largely on the requirements set out by the curriculum in each institution. These varied approaches mean that graduate skills and knowledge differ across the industry, making it more challenging to determine which curriculum and what approach is more effective. Research conducted by Tsai (2013) indicates that students consider the skills demanded by employers when thinking about their employability. Among the most frequently mentioned skills were personal attributes such as hard work, organizational skills, technological knowledge, adaptability, flexibility, dedication, and commitment (Tsai, 2013). This confirms findings from the literature that also indicates that students view skills acquisition as a way to improve their employability and their economic position (Cornford, 2005; Wilton, 2008).

## Qualifications, credentials, and certification

Credentialing and certification are a widespread practice to decide whether an individual is qualified to perform a specific role within a company or industry. The main purposes of using credentials and certificates when recruiting employees are to shield the customers from incompetent staff and ensure professionalism of members of the industry (Mulkey & Naughton, 2005).

Whilst vocational education is challenging in all sectors (Spottle & Windelband, 2021), the hotel and travel industry faces issues when considering qualification and certification. The sector is vast and varied regarding types of establishments, with a strongly diversified customer base that has differing expectations when it comes to service. Another issue within the industry is the exceptional mobility of the workforce, both domestically and internationally (Moreo, Green, & O'Halloran, 2018), creating challenges in the qualification of hospitality employees. Certification is the focus of educators' perspectives on the value and importance of credentials (Deale & Schoffstall, 2015). Very little is known about the value being put on credentials from the perspective of employers and graduates, and there is evidence suggesting that these perspectives do not align with educators' viewpoints (Raybould & Wilkins, 2006). There is also little research on the certificates value for

bachelor's degree holders. Whilst most researchers agree that university degrees and professional certificates do not guarantee a highly competent employee, they recognise that a level of understanding of industry-specific knowledge is necessary (Matlock et al., 2001).

Studies suggest that credentials add more value for established industry professionals, rather than recent graduates. This is apparent in many industries that evolve quickly, such as IT, as certification allows professionals to stay marketable and up-to-date (Philipps, 2004). It is also clear that certification is more valuable in some areas of hospitality than others. For example, within culinary arts, credentials hold more value for professionals in baking and food services, though have less importance for professionals working with beverages. There are more necessary 'hard skills' involved in food and pastry preparation, than in many other areas of hospitality (Moreo, Green, & O'Halloran, 2018). Overall, the existing studies indicate that certification is not a particularly important criterion for employers when it comes to the recruitment of new graduates. Most will look for hands-on work experience and enthusiasm for the role, to determine if a candidate is the 'right fit' for the job (Brownell & Goldsmith, 2006).

### Internships and Employability

Research suggests that practice-based learning calls for synergy between employers and educators, and professional knowledge is one of the essential elements in the skills' set of graduates (Harris, Chisholm, & Burns, 2012). Jackson (2016) has established that those with more practice-based experience have a better ability to transfer skills into the workplace, than those who have less. Immersing students in professional training relevant to their field of study aids in the development of graduates that employers see as highly valuable for their establishments (Eraut, 2001).

Although research evidence shows practice-based learning improves graduates' opportunities to learn a broad array of transferrable skills, helping students successfully transfer into their careers of choice, many educators remain hesitant to get involved (Harris, Chisholm, Burns, 2012). The reluctance of educators and educational institutions to engage in a conversation about an education that is more applicable to the modern-day workplace is partly the result of their unwillingness to accept the validity of experience-based learning through involvement in real-life work environments. Another reason for their reluctance may be the perceived strain and obligations such a mode of teaching amasses (Harris, Chisholm, Burns, 2012). According to Jackson (2016), the dissatisfaction with professional skills of graduates arises from a gap in educators' and employers' understandings of what skills are valuable, and to what degree. This results in a schism between the skills that are incorporated into the curriculum, and those expected by employers.

Jackson (2016) names three major personality domains, learner, learning program, and workplace characteristics, decided by the conventional models as those that affect the graduates' abilities to transfer skills from the educational environment to that of the workplace (Kirwan & Birchall, 2006). Jackson (2016) has established that the work-based practice of the graduates and all three personality domains (openness to experience, extraversion, and conscientiousness), as are important aspects of skill transfer. Barrick and Mount (1991) have defined "Openness to experience" as an intellectual aptitude that helps identify candidates who are ready to be trained and is related to the graduates' ability to be "imaginative, cultured, curious, original, broad-minded, intelligent and artistically sensitive" (p.5). Herold et al. (2002) also agree that this domain facilitates the graduates to obtain necessary skills at a faster pace.

Another domain that has been established as a strong predictor of the graduate's abilities to learn was identified by Naquin and Holton (2002) to be "Extraversion". Barrick and Mount (1991) refer to it as the presence of ambition, sociability, activeness, and high self-esteem in graduates. Moore and Scott (1996) have also established a link between extraversion and self-efficacy, whereby self-efficacy has been determined as a strong determinant of skill transfer. There is also a clear pattern established by Nicholson et al. (2005) illustrating that people with high levels of extraversion and openness are less prone to manifesting neurotic behavior and are more conscientious and agreeable.

Conscientiousness relates to graduates' discipline and perseverance as well as their ability to be goal-oriented and systematic. (Herold et al., 2002). Whilst there is some evidence to suggest that it affects the transfer of skills, further research is required to determine to what extent (Burke & Hutchins, 2007).

### Learning Program Characteristics

Context similarity, theory, skill relevance, learning objectives, collaborative learning, and reflection have all been determined as crucial components of skill transfer (Jackson, 2016). Assisting students in the process of reflecting on their efficiency and achievements as well as helping them to identify learning objectives have shown to be the most important characteristics, with the acquisition of skills through collaborative learning not far behind. The results of this research help to explain the rising efforts of many educational institutions to incorporate active and group learning activities that integrate peer critique and self-reflection (Micari et al., 2010).

Although most educators agree that employability skills are an important aspect of the learning program, in most cases the development of these skills remains outcome-focused without much consideration being given to how these skills will be transferred by the students in their future workplace (Jackson, 2016). While general signals and principles on how to enhance skill transfer within the learning environment exist, practical implementation and strategies are still underdeveloped (Holton & Baldwin, 2003).

### Workplace Characteristics

Setting both short- and long-term objectives as well as establishing expected training requirements have been identified as influential in the workplace. Apart from them, characteristics, such as performance feedback, skill application, and access to a buddy/mentor system have also proven to be important (Jackson, 2016). The research has also shown that circumstances that directly affect the individual job design, such as channels that support peer cooperation are crucial to the transferability of skills. Whilst the study conducted by Jackson (2016) has shown no significant variation in terms of multi-group analysis (intended to check the applicability of the model among different groups of graduates), Holton, Chen, and Naquin (2003) have discovered a difference in skill transfer of several variables between the employees of non-profit and for-profit organizations. The difference in skill transfer applicability has also been observed by McDonnell, Gunnigle, and Lavelle (2010).

### Internships and Career Decisions

Many students are indecisive about entering the hospitality industry after graduation. The industry still suffers from a reputation of being a profession that is less esteemed than many others that require a degree, exacerbated by low starting salaries and fluctuating

working hours (Norman & Hyland, 2003; Wan et al., 2014). This leads to a large proportion of hospitality graduates (oftentimes reaching over 30%) preferring to switch their careers to a different industry (Chang & Tse, 2015).

Students often look towards their universities for opportunities to improve and increase their skill set, with placement years, internships, and craft-based learning being perceived as activities that add the most value (Moreau & Leathwood, 2006). Other important support provided by universities also lies within employment support, such as resume advice and careers centers (Tsai, 2013). Multiple studies indicate that successful internships not only aid in boosting graduate employability in the hospitality sector, but are also a deciding factor for many first-time job-seekers on whether to stay in the industry or switch to a different profession (Chen & Shen, 2012; Chen, Shen, & Gosling, 2018; Kim & Park, 2013; Robinson et al., 2016).

Farmaki (2018) also supports this notion, with participants in his study stating that positive internship experience plays a big role in improving graduate employability. This position is supported not only by students but by employers as well (Beggs et al., 2008), reiterating the importance of work experience as one of the deciding factors in the retention of graduates within the industry (Tsai, 2013).

#### Implementation of Practice-based Learning in Real-life Higher Education Learning

Whilst the development of practice-based learning has been on the rise over the past years and the research shows the undoubted importance and positive impact of incorporating the practice into the curriculum the levels of engagement and commitment to developing the practice further are relatively low from both educators and employers. This hinders the ability of graduates to develop the necessary employment skills (Harris, Chisholm, & Burns, 2012). Whilst action has been taken to incorporate practice-based learning into the curriculum to some degree by educators, employers, and the government, the engagement levels and results still have a lot of room for improvement. In many cases, the resistance also comes from the smaller employers, as in the current economy they are more concerned for their business survival, rather than training the employable workforce for the future (Leitch, 2006). Harris, Chisholm, and Burns (2012) also note the minimal engagement of employers in the process of quality assurance within the delivery of practice-based learning. Another major issue is the general unavailability of such programs on an undergraduate level, as most work-based learning schemes are intended for graduate programs, such as MBA. Research suggests that the availability of programs such as KTP (Knowledge Transfer Partnerships) can encourage better employer engagement at the undergraduate level (Harris, Chisholm & Burns, 2012).

#### Current and Future Hospitality Job Market

Digitalization and automation are steadily ingraining themselves in the day-to-day operation of the majority of industries, hospitality not being the exception. Whilst it does provide several benefits for the customers and the businesses it poses a serious threat to the existing hospitality jobs (Kecic, 2019). There is little consensus on how these technological advances will affect employment in the hospitality sector, with some researchers believing that it will evolve to adapt to the new requirements or become fully replaced by technology and outsourcing (Davidson, McPhail, & Barry, 2011; Melián-González & Bulchand-Gidumal, 2017). Given that the industry is already experiencing major shifts due to automation it is important to identify the jobs currently held by human employees in hospitality and which ones are particularly vulnerable to becoming obsolete in the future.

#### Technological Literacy and Employability

In tandem with work experience, the ability to use technology, both in its wider sense and industry-specific software, is considered an essential employability skill (Pirzada and Khan, 2013). This requirement is visible across the majority of industries generally (Pool and Sewell, 2007; Rosenberg et.al., 2012) as well as in the hospitality sector in particular (Bilgihan et.al., 2014; Nolan et.al., 2010)

As a service industry that relies heavily on quick and efficient processing of information, operation, and well-functioning distribution channels staying in tune with technological advances is essential for hospitality businesses to gain a competitive advantage (Bilgihan et.al., 2014). Therefore, graduates' ability to operate technology and strategically apply the knowledge they extract from it is among the top 10 necessary skills for successful employment (David, 2007). Whilst all stakeholders agree that technology is an important aspect of employability, oftentimes industry professionals focus disproportionately on operating software for property management and customer communication, with little to no importance being seen in using technology to gain a tactical and strategic advantage (Ali, Murphy, & Nadkarni, 2018; Buhalis & Law, 2008; Ip et.al., 2011). This might pose multiple challenges for graduates seeking to enter the workforce, due to the way technology is reshaping the industry jobs.

#### Current Job Market

The study conducted by Frey and Osborne (2017) on 702 different jobs in the USA concludes that 47% of actions in workplaces being performed by humans today are at risk of being replaced by technology within the next 20 years, with salaries decreasing as automation becomes more common.

In the hospitality sector, one explanation for such a trend might be the high levels of labor mobility and seasonality of the work. This makes it much harder for human resources to attract and retain high-skilled workers in the sector making it extremely expensive to recruit candidates for high-paid positions. To offset the costs low-skilled workers are more likely to be recruited for operational positions (Joppe, 2012). This creates a favorable environment for AI and other technology to take over routine task positions, as it provides better productivity for a fraction of the costs (Kecic, 2019). The effects of this phenomenon are seen globally in the hospitality sector with many hotels turning to AI and other forms of technology to provide customers with services that were previously supplied by human employees (Cain, Thomas & Alonso, 2019; Ivanov, 2019; Ivanov, et.al., 2019).

This shift in the job market is leading to new requirements in terms of skill, with many workers having to adapt to the new industry demands. Borland and Coelli (2017) confirm that technological advances have resulted in more work hours for high-skilled workers whereas the hours for middle-skill employees have been reduced. This discovery is mirrored in a study conducted by Graetz and Michaels (2015) whereby they conclude that high-skilled work has increased in hours whereas low-skilled workers now have reduced hours. Goos and Manning (2007) on the other hand, believe that the demand for highest- and lowest-skilled jobs will increase whilst the middle-skill employment will see a decline. This prediction will ultimately lead to both upskilling and deskilling of the middle-skill workforce (Mishra, Cao, & George, 2019).

There are multiple ways in which technology and AI have already entered the hospitality sector with major repercussions for the job market. Whilst previously competition for a position within a company might have been between two qualified candidates there is

now another layer of competition in the form of AI and technology. The Las Vegas Wynn hotel, for example, installed self-service check-ins and has automated customer service in various areas of the hotel with both preparation and service within the hotel being operated by technology (Ivanov, Webster, & Berezina, 2017). The San Francisco-based Café X has invested in a robot barista that can serve 120 cups of coffee an hour (Hochman, 2018). Postillion Hotel Group has introduced “Michiel”, their AI reservation system in the Netherlands. The new reservation system can customize offers and e-mails using natural and personalized language and is capable of deep learning essentially improving itself over time. Whilst the general hope of these innovations is that they will allow for the back office to become fully automated and allow employees to focus on “sincere hospitality” (El Hajal & Rowson, 2020), it is important to note that with the speed at which AI is developing even front-office customer-oriented positions are at risk. There is a bigger risk for some jobs than others, as jobs such as barista are primarily operational, whilst a barman position on the contrary involves personal interaction with customers and has an interactive element on top of just mixing and serving drinks (Kosslyn, 2019). Nevertheless, AI technology is becoming increasingly more common in the hospitality sector driven by the inability to find suitable candidates for the roles as well as the necessity to compete in an aggressive market that relies heavily on the creation of memorable and impeccable customer experiences (Bowen & Morosan, 2018). Therefore, anticipating and acquiring the skills that will be in demand in the near future within the industry is paramount for hospitality graduates and HE institutions to ensure a competitive advantage.

#### Future Skills Demand

Whilst technological advances of the previous years have put a lot of jobs at risk, certain areas such as customer care, healthcare, and law were considered “untouchable” as they required human interaction and a personalized approach. With the introduction of AI into the equation even occupations with high dependency on soft skills are now under threat (El Hajal & Rowson, 2020).

Nevertheless, there are still some positions that are harder to automate according to Kosslyn (2019), involve contextual consideration and emotion. Whilst the occupation approach was favored by Frey and Osborne (2017) when considering retention of the human workforce, many researchers are now looking towards an older approach introduced by Autor et al. (2003), that involves looking at each occupation as consisting of a variety of tasks, some of which cannot be automated. This means that whilst some tasks within an occupation might get automated others will still require human touch. Stemming from this task approach it can be argued that an occupation can be split into three different levels of skills. Firstly, there are routine, manual, and repetitive tasks that are easily programmable to exclude human errors and therefore will be the first ones to be fully replaced by technology. Secondly, the managerial and analytical tasks are more abstract in nature and therefore depend more on human inputs such as creativity, negotiation, and problem-solving. Lastly, the non-routine physical tasks that require observation and visual recognition skills, adaptability, and emotional intelligence. Out of the three types of tasks, the second and third are much more challenging to automate and therefore will most likely not be entirely replaced by technology, but rather, will be complemented by new software and digital advances (David, 2013). Following this argument, it becomes evident that the digital revolution increases demand for employees who can perform non-routine tasks and have a set of easily transferrable skills (El Hajal & Rowson, 2020).

In addition, the hospitality industry will be looking for candidates who have expertise in non-traditional forms of customizable and attentive customer service, focusing more on building stronger customer relationships. With such a strong shift towards customer-oriented service and bespoke experiences, it is becoming more probable that back-of-the-house tasks will be covered by machines and robots instead of people (Solnet, Baum, Robinson, & Lockstone-Binney, 2015). Considering the rise in the use of technology daily in the industry, it is paramount for both educators and graduates to prepare themselves for the new sets of skills that will be necessary (El Hajal & Rowson, 2020). This requires a consistent and up-to-date approach to curriculum and learning that will ensure the development of strategic objectives that help future graduates work in tandem with the digitalized industry (Moldenhauer & Londt, 2019).

Whilst precise evaluation and assessment of the impact of AI and technology on the hospitality industry is challenging to gauge due to the speed at which it is developing, it is still important to understand the implications of what the introduction of new technology entails for the skills demanded by employees. This will ultimately lead to a major necessity for reskilling the workforce for them to stay relevant and competitive in the new industry environment (Mishra, Cao, & George, 2019). One way to prepare for the fast-paced changes induced by technological advances is to identify a larger set of transferrable skills that AI and machines will be unlikely to master in the near future which will promote adaptability in graduates (Wade, 2019).

### Curriculum Design

Given the varied perspectives of employers, educators, and graduates on which aspects are important in reaching higher levels of employability there is a debate on who and what should drive the curriculum development. Some authors believe that the primary objective of HE institutions should be the academic development of students, rather than a training center for the industry (Fearn, 2008), whereas others consider graduate employability as an important quality indicator of HEIs (Bohm et.al., 2004). Whilst some attempts have previously been made to involve the industry in the development of more effective curricula (Solnet et. al., 2007) the gap between industry requirements and curriculum competencies persists (Helyer, 2011).

### Conclusion

The concept of employability in the hospitality sector is complex and lacks a clear consensus among researchers. While it is generally defined as a set of personal attributes, achievements, and knowledge that make individuals more likely to find and retain a job, various influencing factors can affect employment outcomes and performance rates. The demands of the hospitality and tourism industry for highly skilled professionals, coupled with shortages of workers with the right skills and government procedures, have led to a reevaluation of the role of academic institutions in contributing to the employable workforce. This has resulted in a shift in higher education curricula towards prioritizing employability, with a focus on developing graduates with industry-relevant skills and competencies. However, there is a disconnect between what educators and employers perceive as the most important competencies. While higher education institutions tend to focus on academic and strategic competencies, employers prioritize operational elements of the job. Furthermore, there is significant variation in the academic and skill acquisition experiences among different schools and institutions, leading to differences in graduate skills and knowledge across the hospitality industry. Despite the common practice of developing curricula in other

disciplines, there is limited research on the aims, objectives, and values that influence the design of hospitality courses.

Credentialing, or certification, is commonly used in recruiting to determine if an individual is qualified for a specific role and to enhance professionalism in an industry. However, credentialing in the hospitality industry presents unique challenges due to its diversity, mobility of the workforce, and varying perceptions of its value among educators, employers, and graduates. Research suggests that credentialing may be more valuable for established industry professionals than recent graduates, and its value may vary across different areas of hospitality. Hands-on work experience and enthusiasm for the role are often considered more significant factors in the recruitment of new graduates.

Practice-based learning, including internships, is highlighted as a key factor in improving graduates' employability by allowing them to transfer their skills into the workplace. However, there is hesitation among educators and educational institutions to incorporate practice-based learning, and efforts to implement it have faced challenges in engagement and commitment from educators and employers. There is also a lack of availability of practice-based learning programs at the undergraduate level, with most programs geared towards graduate programs. The hospitality industry is also facing shifts due to digitalization and automation, which may further affect the skills and competencies needed for employment.

In conclusion, employability in the hospitality sector is a complex and evolving concept, with challenges in defining and prioritizing competencies, incorporating practice-based learning, and aligning perceptions of credentials and certification. Further research and collaboration between educators, employers, and industry stakeholders are needed to ensure that graduates are equipped with the right skills and knowledge for successful employment in the dynamic hospitality industry.

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