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Sustainable Tourism and Hospitality Education in a Rapidly Transitioning Industry: the future of tourism and hospitality education in the GCC region

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1. Introduction

The tourism industry is a global phenomenon, which is widely recognized by academic scholars (Butler, 1980; Christaller, 1963; Gilbert, 1960; Machlis & Burch, 1983; Shields, 1991) as a dynamic process in terms of destinations and changes occurring within the industry itself. Historically, tourist destinations are established, promoted, and experienced through the intercession of several social, cultural, economic, and political forces (Saarinen, 2004), and consequently, the tourism industry inevitably experiences continuous changes impacted by deviations in any of these forces. According to Saarinen and Więckowski (2019), the changes in the tourism landscape are usually driven by non-local forces. Between 1999 and 2019, the contribution of tourism to the global economy doubled to reach 10.3% in 2019, and the jobs supported directly and indirectly by the sector reached 313 million in the same year, reflecting the creation of a new tourism era (WTTC, 2021). An overview of the role of the hospitality and tourism in economic development will be discussed throughout this paper. The commercialization of the tourism and hospitality industry coupled with the demand for new experiences influenced destinations to take development to a new level, in turn, encouraging the radical transition of the industry (Mayer, Zbaraszewski, Pieńkowski, Gach, & Gernert, 2019). According to Saarinen (2004), the transitions in the tourism industry were mainly driven by the changes in consumer preferences, coupled with the growing interest in tourism development by several developing nations seeking economic and social gains. Accordingly, an overview of tourism-related economic development will be discussed.

While tourism and hospitality witness rapid change due to economic, social, and environmental factors, the spaces, destinations, and places in which tourism takes place are also witnessing change even in regard to their sense of place and identity (Więckowski & Saarinen, 2019). Although tourism and hospitality have been identified as a major body of knowledge for a long time, it has been retransformed alongside the changes in its landscape to become a science taught in higher education (Malihah & Setiyorini, 2014). According to Cooper and Shepherd (1999), the relationship between the tourism and hospitality industry and tourism education is historically a complex one that was characterized by distrust. However, both academics and the industry started to recognize the importance of developing a more cooperative scheme to narrow down the rift and achieve mutual benefits. Several authors (Airey & Tribe, 2005; Mínguez, Martínez-Hernandez, & Yubero, 2021; Sheldon, Fesenmaier, Woeber, Cooper, & Antonioli, 2008) argue that tourism and hospitality education and training require significant changes to mirror the rapid change in the tourism landscape and prepare “well-rounded” graduates who are knowledgeable and capable of taking part in tourism development. Malihah and Setiyorini (2014) stated that the tourism and hospitality industry has been stressing the importance of tourism education in resolving tourism management problems in society.

Thus, the need for developing tourism and hospitality education in a collaborative manner between industry experts and academia has increased. Furthermore, Bayona (2021) adds that students need to have a variety of skills to be part of the competitive tourism workforce. According to the latter, a sustainable education scheme is needed to ensure graduates are well-equipped with the skills needed to adapt to the rapid changes in the tourism industry. For that to be achieved, tourism and hospitality education requires innovation and sustainable investment (Bayona, 2021). Several countries are left behind when it comes to developing sustainable

hospitality education programmes that are needed for tourism and hospitality development. The lack of a global or regional framework to follow up on this matter is widening the gap between what the industry requires and what is really being taught at higher education institutes. Consequently, this research aims to assess the readiness of tourism and hospitality programmes in higher education for rapid transitions that would accommodate the transitions of the industry itself. This research will focus on the GCC region, which is one of the fastest growing regions in terms of tourism and hospitality that is in need of knowledgeable and well-trained workforce to match its ambitions and growth needs. According to a recent article published by the Arabian Business Magazine (2022), the GCC needs 90,000 tourism and hospitality workers by 2026. This research attempts to answer the means of how sustainable education in tourism is achieved in light of such rapid transitions. The research also examines the requirements and needs of students and academics in tourism and hospitality programmes to meet industry demands. As Europe is now a leading example of sustainable tourism and hospitality education, this research explores the GCC region by conducting interviews in five higher education institutes that offer tourism and hospitality programmes in the GCC.

Results are expected to signify the difficulties of the industry's rapid change and the lack of reflection in classrooms. Recommendations and suggestions will be made based on the data collected. Raising the flag on the need for a more sustainable education programmes is a necessity to ensure the hospitality sector keeps prospering in the GCC region.

2. Literature Review

This section will discuss the tourism landscape and will review past studies related to tourism and hospitality education to highlight the developments in that area. This section will explore strategies for implementing sustainable tourism and hospitality education into pre-existing curriculum.

2.1. The Tourism and Hospitality Landscape

2.1.1. Tourism Development and the Economic Footprint

During the past decades, there has been a notable increase in research related to tourism and hospitality development (Rasool, Maqbool, & Tarique, 2021). According to Martín (2015), the determinants and importance of growth in tourism and hospitality have been extensively studied across advanced; emerging and developing markets. Several authors (Heagneya, Rose, Ardeshiri, & Kovac, 2019; Barbier, et al., 2011) recognized tourism and hospitality as an important aspect of economic development. The tourism sector generates millions of jobs, contributes to the inflows of foreign currency, household income, and government revenues, and creates a multiplier effect across several industries, including transportation, food and beverage, and entertainment (Henry & Deane, 1997; Ohlan, 2015; WTTC, 2021). However, other studies (Tang, 2013; PO, 2008; Katircioglu, 2009) consider the relationship between economic development and tourism to be insignificant.

Savaş (2010) conducted a study to evaluate the role of tourism in economic growth in Turkey. The study examined the relationship between the Gross Domestic Product (GDP), exchange rate, and tourism receipts. The findings of Savaş's study show that tourism drives economic growth in Turkey and increases foreign currency inflows, allowing the country to maintain its exchange rate and minimize its deficit in the current account balance. Dhungel (2015) examined the same relationship in Nepal. The study used data between 1974 and 2012. In Tunisia, Belloumi (2010) examined the relationship between the increase in tourism receipts and

economic growth. Belloumi (2010) used a prolonged data set between 1970 and 2007. The findings also supported the hypothesis of tourism-driven economic growth. Looking at Europe, Antonakakis (2015) used the spillover index methodology to assess the relationship between tourism and economic development. The latter authors used data from 10 European countries between 1995 and 2012. The study revealed that the tourism-economic growth relationship was not consistent over time. The study attributes such fluctuations to the geopolitical challenges the region have faced in that era, Both domestically or through spillovers from international conflicts. Although tourism and hospitality remain important drivers for economic and social development, there are many changes in the dynamics of this industry. For example, Martín (2015) stated that tourists from emerging and developing markets started to outpace those of the developed world. According to the latter, the number of households earning USD 100,000 will increase to 30 million by 2025, where 33% of those households are from emerging countries. Furthermore, Martín (2015) cited that around 50% of international tourist arrivals to the U.S. in 2014 (excluding Canada and Mexico) were from emerging and developing markets. According to Azza and Norchene (2017), the need for tourism-related economic growth is bringing drastic changes to the industry in a very short time frame. Therefore, the following section will discuss the transitional nature of tourism, and hospitality is also linked to other aspects.

2.1.2. The Transitional Nature of Tourism and Hospitality

The change in the tourism and hospitality landscape is not only assessed to be related to the consumers, their behavioural patterns, and to what extent the sector is considered an economic catalyst but also the creation of the development of the destination itself. According to Więckowski and Saarinen (2019), tourism destinations are characterized by continuous change, and the creation of new tourism spaces reflects a wider, political, economic, and social agenda. Furthermore, Müller (2018) argues that destinations are constantly changing products that include a combination of a social, economic, and political scheme that can be altered based on space and time. Tourism destinations can no longer be considered as geographic locations waiting to be explored. Destinations now are set to be the reflection of consumer perceptions and choices (Więckowski & Saarinen, 2019). On the same front, Saarinen (2004) this new space-creation in destinations have limited to a certain extent limited the socio-political and cultural competition in which regions operate. The latter argues that once the perception of exploring a region is terminated and the mindset of space is inserted then tourist destinations can be described as "space-time mosaics," preserving uniqueness but at the same time keeping some competing ideas of the destination.

Finally, the COVID-19 crisis introduced a paradigm shift in the landscape of tourism and hospitality. While some industries were able to rely on digital technologies to survive (Mehroliya, Alagarsamy, & Solaikutty, 2020), other businesses that rely on physical interaction were brought to a complete stop. Tourism activity declined by 85% in 2020, when compared to 2019 and 80% in 2021 compared to 2019 (WTTC, 2021). Being one of the most labour-intensive industries, the pandemic had a devastating impact on tourism and hospitality (Azza & Norchene, 2017). Millions of jobs were lost, and revenues deteriorated, which affected the national income of many emerging economies that heavily rely on tourism receipts (Sharma, Thomas, & Paul, 2021). Therefore, examining how the industry can survive future crises is paramount. A recent study conducted by Sharma et al. (2021) stated that a scheme including government support, investment in innovative technologies, local support, and consumer & employee engagement should be considered to support the industry during future crises. Another study conducted by

Smolovic et al. (2018) concluded that tourism and hospitality should consider sustainability as an action plan to encounter future obstacles.

Based on the above discussion, the need for a flexible workforce to accommodate the ongoing transitions in tourism and hospitality is needed to ensure the industry is operating in the best possible way. Therefore, this needs to be reflected in the tourism education process. The upcoming section will discuss tourism education's current status of affairs, what's in the pipeline, and how academics are dealing with the new landscape of tourism and hospitality.

2.2. Education in Tourism and Hospitality

Tourism and hospitality are labour-intensive sectors where social interaction is vital for service delivery (Azza & Norchene, 2017). Therefore, the skills of employees are critical to ensuring the best quality of service for service providers and the industry as a whole (Cooper & Shepherd, 1999). Furthermore, a good workforce will allow service providers to gain a competitive advantage by adding an experienced human touch to their services (Cooper & Shepherd, 1999). Cooper and Shepherd (1999) mentioned that investing in educating and training tourism and hospitality students will boost the performance and productivity of all stakeholders within the industry. Considering the transitional nature of hospitality and tourism professionals and academics need to be proactive in those changes and prepare different scenarios to ensure that curriculums reflect those changes (Sheldon, Fesenmaier, Woeber, Cooper, & Antonioli, 2008). According to Zeker and Kock (2020), those changes are driven by crises, market dynamics, and technology, which must be considered in the research agenda to ensure proper tourism and hospitality education.

Tourism and hospitality education started in the early 1980s (Fidgeon, 2010) following calls from industry stakeholders for better-qualified professionals. According to Mínguez et al. (2021), tourism and hospitality education has been highly influenced by managerial ideology and market capitalism. Several authors (Slocum, Dimitrov, & Webb, 2019; Tribe, 2002) criticised tourism and hospitality curricula for suppressing critical thinking and creativity and focusing only on market-oriented learning. These curricula focus on job skills to address the preferences and expectations of the employer, ignoring aspects such as cultural influence, research, and the change in market dynamics (Slocum, Dimitrov, & Webb, 2019). This approach creates a rift between liberal and vocational education (Dredge, et al., 2012; Ring, Dickinger, & Wober, 2009; Tribe, 2002), creating a mismatch between the future market perspectives and educational curricula (Lillo-Banuls & Casado-Díaz, 2015). Furthermore, the current curricula focus on tourism and hospitality as an industry ignoring other concepts of this unique phenomenon (Higgins-Desbiolles, 2020). Therefore, universities fail in enhancing the cognitive thinking of students when it comes to studying tourism as a complex phenomenon. According to Slocum et al. (2019) integrating sustainable tourism and hospitality education into current curricula is essential to influence the learning outcomes of students and enhance their abilities. Several authors (Boyle, Wilson, & Dimmock, 2015; Hales & Jennings, 2017; McGrath, et al., 2020) have discussed the importance of creating sustainable tourism and hospitality education to ensure that students are well-equipped to deal with the changes in the market dynamics. Barnett (1990) stressed the importance of creating progressive educational frameworks in tourism and hospitality that cater market needs, including forming a network of international tourism educators (Sheldon, Fesenmaier, Woeber, Cooper, & Antonioli, 2008), pedagogical frameworks based on critical thinking (Belhassen & Caton, 2011; Mair & Sumner, 2017) and vocational training (Dredge, et al., 2012; Tribe, 2002).

On the same front, Higgins-Desbiolles (2020) highlighted the importance of creating new pedagogical techniques to improve students' capacity to deal with complex situations. According to Mínguez et al. (2021), a global initiative has been established (The Tourism Education Futures Initiative) to create a scheme for sustainable tourism and hospitality education programmes. The initiative has been partially implemented in Calvert University Texas on undergraduate programmes to include stewardship, ethics, knowledge, mutuality, professionalism stewardship, ethics, knowledge, mutuality, and professionalism (Jamal, Taillon, & Dredge, 2011). Nevertheless, the tourism industry as a whole still lacks the vision to invest comprehensively in training and education. This ensures the need to create sustainable tourism and hospitality education programmes (Edelheim, 2020).

A recent study conducted by Mínguez et al. (2021) aimed to assess the readiness of tourism and hospitality students and teachers to deal with the COVID-19 crisis in Spain. The study performed a critical analysis of the current educational programmes compared to a proposed Sustainable Tourism Pedagogy that includes six areas of this literacy, including humanistic, sociological, legal, economics and marketing, linguistics, instrumental, and integral. A questionnaire was distributed to both students and teachers. Data collected from 393 respondents revealed that current tourism degrees are not in line with today's market dynamics, there is a huge gap between the teachers' perceptions of tourism and hospitality education and students' requirements. The study concluded by calling upon all stakeholders to create a more sustainable educational programme in higher education, and the need to revise all current national educational programmes.

Similarly, McGrath et al. (2021) conducted a multi-staged study to assess the sustainability of sustainable tourism and hospitality education. The study was based on feedback from staff and students of an Australian higher education institution. The study found significant gaps in existing curricula in addressing current and future market challenges. McGrath et al. (2021) suggested using simulation practices that include sustainable tourism principles as a teaching and learning tool for students. Schweinsberg et al. (2013) aimed to review the prospects of tourism and hospitality education for senior students in Australian universities. Although market-oriented skills are essential for undergraduate tourism and hospitality education, the study believes that senior students need to have critical skills in their curricula, especially issues related to sustainability. The paper encourages domestic and international educational experts to come together, and merge applied business themes such as ethics, marketing, economics, and statistics under the umbrella of sustainability. The authors emphasize the importance of building a tourism and hospitality industry that is focused on sustainability coupled with essential business needs. Moreover, Bayona (2021) advocates for a lifelong methodology of education that can help students deal with future challenges rather than current market and business needs. Implementing this approach will allow the emergence of young leaders who would focus more on the future of tourism and hospitality.

On another note, several authors (Cater & Goodall, Must tourism destroy its resource base?, 1992; Ham, Sutherland, & Meganck, 1991; Johnson, 1998) highlighted the importance of training and education in achieving sustainable tourism. According to Cater (1995), scholars are in the debate about who should learn what, when, how, and who will be the educating institution. Furthermore, the latter adds that in order to educate the industry about sustainability, other stakeholders must be involved including experts in travel, construction, government officials,

and even customers. Cater (1995) believes that adding all these stakeholders will bring different perspectives on how to achieve sustainability in tourism and hospitality. A more recent study conducted by Cotterell et al. (2019) aimed to assess sustainable education in the tourism industry. The study used the content analysis method of the current curricula in Australia. The study highlighted the importance of teaching sustainability practices in tourism is essential to ensure the preparation of a future workforce. Assisting students in understanding the role of sustainable tourism in economic development is essential to foster the creation of a learning environment that is driven by critical thinking, which shall transform business practices (Wilson & Von der Heidt, 2013). In order to achieve this strategy, an increase in critically reflective practices and systematic thinking for tourism educators is essential. According to Cotterell et al. (2019), this is the only way that the tourism industry becomes literate regarding issues related to sustainability. The latter authors argue that under this scheme the industry will be able to match the UN Sustainable Development Goals and ensure the continuation of the industry while ensuring its growth and prosperity. As suggested by Higgins-Desbiolles (2020), the planet can no longer accommodate “moderate” sustainability. The context of sustainable tourism requires further research to identify the required approaches to the education needed. Sustainable tourism is one of the most important topics considered by governments, academics, and industry stakeholders to tackle the environmental footprint of the industry.

3. Research Methodology

The mixed-method approach, which includes collecting both quantitative and qualitative data (Creswell, 2014) has been used to ensure a complete understanding of the research problem rather than the research approach alone. Adopting this method provides more focus on nature of tourism and hospitality education in GCC countries, and what is needed to achieve sustainable tourism and hospitality education programmes. As a result, this research used an inductive research philosophy. According to Zikmund et al. (2009), inductive reasoning involves deriving new assumptions based on combining data patterns. A questionnaire was distributed amongst students in two higher education institutes in the GCC region that offer tourism and hospitality programmes. Questionnaires are reliable, fast, if the content was assessed during the pilot phase, and can be analysed using a range of techniques (Zikmund, Babin, Carr, & Griffin, 2009). Questionnaires should be simple, unbiased, and easy to understand to ensure the accuracy of the data collected. In order to ensure validity, the questions were developed based on gaps in literature from various sources considering tourism and hospitality education (Heale & Twycross, 2015). The test-retest method was used to ensure reliability (Heale & Twycross, 2015).

To complement the data collected from the questionnaire, five interviews were conducted with academic professors from different universities in Dubai, Qatar, and Saudi Arabia. Creswell (2014) stated that field interviews are extremely important in terms of flexibility as it allows the researcher to follow up and gain useful insights as they can gain immediate feedback and clarify ambiguous responses. Zikmund et al. (2009) add that researchers can always ask the “why” question to clarify what the respondent is thinking about. Interview questions were also based on literature gaps in that area considering also previous research for (Belhassen & Caton, 2011; Cotterell, Hales, Arcodia, & Ferreira, 2019; Cooper & Shepherd, 1999; Mínguez, Martínez-Hernandez, & Yubero, 2021). The four main pillars of sustainable tourism/hospitality education (Changes in technology, Socio economic state of affairs, Changes in market dynamics, Customers’ preferences) were used based on previous studies of (Belhassen & Caton, 2011;

Cotterell, Hales, Arcodia, & Ferreira, 2019; Cooper & Shepherd, 1999; Mínguez, Martínez-Hernandez, & Yubero, 2021; Jamal, Taillon, & Dredge, 2011).

3.1. Sampling Method

This research collected data from five institutes of higher education in the GCC region. The institutes offer tourism and hospitality education programmes. As this research is intended to assess the perceptions of students and educators towards the level of sustainability of tourism and hospitality education programmes in the region, a random sampling method was adopted to collect as much information as possible. Random sampling is one of the most effective sampling methods where every unit in the population has an equal opportunity to be selected (Zikmund, Babin, Carr, & Griffin, 2009). Although the random sampling method is considered effective, some errors might occur. A random sampling error represents the fluctuation in the elements selected for a sample (Zikmund, Babin, Carr, & Griffin, 2009). The latter authors stated that random sampling error can be mitigated by increasing the number of the targeted population as much as possible. To minimize random sampling error, this research selected the full sample of interviews and 95% of the questionnaire population.

3.2. Data Collection

According to Zikmund et al. (2009), interviews should begin with warm-up questions to set the scene and provide the reader with an overview about the current state-of-affairs of the research subject. Therefore, questions began with gaining insights about the status of the tourism and hospitality industry on both the academic and the industry levels. Interviewees were labelled as Interviewee 1, 2, 3, 4, and 5, due to confidentiality reasons. The interview questions are included in appendix A.

The questionnaire was developed based on secondary research reviewed. The questions were intended to cultivate the perceptions of teachers regarding the current educational programmes in tourism and hospitality. In addition, the feedback of students is also important. Students, being the first layer of contact between society and academia, were asked about their input concerning the subject at hand. A survey was distributed to all students in both universities. Students were asked to provide their input based on a Likert scale from 1 to 5: 1= Strongly Agree (SA), 2= Agree (A), 3= Neutral (N), 4= Disagree (D), and 5= Strongly Disagree (SD). The questionnaire is included in Appendix B.

3.3. Data Analysis Procedures

The content analysis method intends to study the meaning of narratives, text messages, and numerical values (Williamson, Given, & Scifleet, 2018). Content analysis comprises analysing qualitative and quantitative data. It is a systematic approach to analysing and interpreting qualitative data. According to Graneheim et al. (2017), the qualitative content analysis offers the opportunity to unearth new themes and patterns. In content analysis, researchers classify their findings based on several categories and then cross-reference between different themes (Williamson, Given, & Scifleet, 2018). The first step was to collect the data and then categorize the themes under two main parts. The first part is based on responses collected from the interviewees, i.e., academic professionals, and the second part is based on responses from students, which were collected through the questionnaire. In addition to content analysis, quantitative data was analyzed using descriptive statistics extracted from Microsoft solver tools. Indicators such as standard deviation and mean were extracted to assess the reliability of the sample.

4. Findings

Based on the data analysis procedure proposed, the findings were classified into two main categories: findings from academic professionals and students. Qualitative data was obtained from academic professionals through interviews, while quantitative data was collected through a survey of students.

4.1. Academic Professionals

Status of the Tourism and Hospitality Industry in the GCC Region

Interviewees were questioned about the current state of affairs in tourism and industry in both the academic and the industry itself. Interviewees demonstrated mixed views, Interviewee 1 highlighted the challenges from an industry perspective stating that there are “*Challenges with recruiting passionate and knowledgeable individuals*” and retaining staff given the dire economic situation where countries are not able to reach full recovery due to the COVID-19 crisis and other circumstances such as the Russian – Ukraine conflict, which disrupted the global supply chain in terms of travel, tourism, and hospitality. Interviewee 1 stated “*Keeping staff who are enthusiastic about the business given the working conditions and relatively low salary. Managing poor economic conditions, COVID, Ukraine-Russian war.*” Finally, interviewee 1 mentioned that meeting customer demands is also putting further pressure on the industry “*Changing customer demands, integration of new technology rapidly.*”

As for Interviewee 2, the response was confined for the United Arab Emirates (UAE), specifically Dubai. The response of Interviewee 2 stated that logistical changes in the UAE immigration system have encouraged students to enroll in universities “*The industry is reviving here in Dubai and the occupancy numbers are looking good and strong. Students are finally returning to classrooms for study and the UAE has made some significant changes to their visa study permits allowing for greater ease for students to enter and study in the UAE.*” Although tourism activity gained some traction in the UAE yet many students nowadays prefer to opt in online programmes, which are easier and less expensive, but at the same time less effective as stated by Interviewee 2 “*Some of the challenges are the lower numbers of students generally worldwide and the desire for some segments to study online which of course presents bricks and mortar establishments without full online programmes challenges.*” Interviewee 3 stated that the UAE government is offering easy access to the country to stimulate both education and tourism. While the main challenge remains the financial side, since most universities “*here in Dubai*” are entities that require personal financing, the improvement in the hospitality after COVID-19 is securing jobs for those students.

On the same front interviewee 4 mentioned that the GCC region would require more than 1.5 million employees in the hospitality industry until 2026, “*25% of which are in Saudi Arabia considering the new strategy to revamp the kingdom to become the tourism hub in the region.*” In Qatar, the situation is similar, especially after the World Cup as discussed by Interviewee 5, “*the challenge is now to retain the given talents and recruit more skilled worker to maintain the same level of service consistency, especially in after the World Cup, the government has significant plans for tourism growth and those plans should include education.*”

Overall, interviewee responses complement each other demonstrating the academic and the industry side showing that the tourism and hospitality industry is gradually recovering, and

students are getting back to physical classes. However, some pre-existing challenges and new obstacles are holding the recovery, such as the geopolitical tensions in eastern Europe.

Tourism and Hospitality Education Programmes in GCC countries

Although the tourism and hospitality industry in the GCC region is considered one of the best in the world given the top-quality service provided and providing unique opportunities for employees “*Biggest strengths are their general strong connection (or effort to connect to industry). The industry is generally high-quality and world-class giving students top-quality, unique opportunities*” (interviewee 2), the industry does not support education and research opportunities. “*Our universities do not have specialities in tourism and hospitality, they teach the basics and add more managerial skills rather than practical hospitality skills*” (Interviewee 4). In addition, the industry in the GCC region lack interest in the educational sector and prefer to hire employees from abroad rather than empowering graduates from local universities. Interviewee 2 stated “*Biggest weaknesses are the industry’s general lack of interest in supporting universities and recruiting students. General lack of research from Middle Eastern T&H programmes, meaning consulting activities are limited, world reputation is low, and formation of new knowledge is low. A concern surrounds the perception of T&H in many Middle Eastern societies. It is ironic that T&H are seen as significant economic sectors, vital for economic survival, yet the sectors have negative perceptions relating to working. This is partly up to academia to help change this and industry. Education is already doing a lot (although more can be done), but industry does not appear to be driving this aggressively as they prefer to recruit from abroad.*” The latter suggested that the industry need to show support for academic institutions in region, foster collaboration, and invest in more consulting and research opportunities. Similarly, Interviewee 3 highlighted that the lack of the “*collaborative infrastructure between relevant stakeholders is affecting both the job market and the academic sector.*” Finally, interviewee 5 mentioned that given the need to maintain service consistency and making Qatar the hub of tourism in the future “*we need government support to create more choices related to hospitality and tourism education, technical education can be a possibility as it provides more hands-on experience for the future workforce.*”

Current Curricula in Tourism and Hospitality Management Meet the Demands for, and Changes in, the Market

All interviewees believe that programmes offered at their universities meet market needs and reflect the changes in market dynamics, “*the programs offered are of high quality, updated and relevant industry reflected content which accurately reflects the industry today*”, (Interviewee 1), “*the focus is on industry needs, developing independent students who can think critically. The students see key industry skills e.g., marketing or HR delivered across several subjects in different perspectives. This can help students to understand the relevance of different subjects across a whole business. Industry and work experience will teach the departmental skills, the education students receive is designed to teach them the higher-level critical thinking skills*” (Interviewee 2). This was also confirmed by Interviewee 3, “*institutions in Dubai follow international protocols to ensure students are ready for the marketplace.*” An important aspect was highlighted by Interviewee 2 mentioning that the institution ensures that their programme allow the student to develop critical thinking skills, which is essential for sustainable tourism education. “*our university have a specialized programme in hospitality and tourism, and we consequently review It based on the feedback of our board*” (interviewee 4), and Interviewee 5

mentioned that in Saudi Arabia, the programmes exist, but more universities need to start adoption to meet the future demand in hospitality and tourism.

Sustainable Tourism and Hospitality Education Programmes Should be Given More Focus

Unlike the generic view cultivated from the secondary data that sustainable tourism and hospitality education programmes should be given more focus, participants in this study believe that sustainable tourism education is given adequate attention in the GCC region. Participants believe that continuously changing education style, content, and programmes will defeat the whole purpose of higher education. Participants believe that educational programmes should be flexible for small changes *“sustainable T&H programmes should cover the basic features of what students need to learn, but keep flexibility so each year, small modifications can be made to keep the content up to date. The wider programme, even the course, won’t necessarily change, but small changes in weekly content can be regularly made to keep everything up to date”* (interviewee 2). Interviewees 4 and 5 from Qatar and Saudi Arabia also welcome the changes in existing curricula to meet the demand of the future workforce. *“We can change and add/remove specialties, but the foundations need to stay the same. We cannot stop teaching tourism and hospitality students the basics of marketing and management”* (interviewee 4). In addition, interviewee 5 stated *“the focus needs to be on adding more practical experience through technical institutions and assign university students to take part of those programmes.”*

Sustainable Tourism and Hospitality Education Requires Developing a Holistic Approach Between the Private and Public Sectors

Participants strongly agree that all stakeholders need to be involved so that students are able to demonstrate the skills they have learned in the marketplace *“there should be integration as students leaving education need to be able to apply the concepts and theory they have learned in the courses they study and they apply them accordingly in the work setting”* (Interviewee 1). Collaboration between academia and the industry will include different perspectives to ensure that a sustainable approach of tourism and hospitality education is achieved. Through this process all involved parties will benefit from the outcome including students, business, governments, and academic institutions, *“T&H (tourism and hospitality) programmes. Everyone’s perspectives need to be included to make sure their values and concerns are reflected and to help secure their buy-in to support later collaboration in industry work, guest lectures, work placements etc”* (Interviewee 2). As mentioned earlier *“we need support from the government to reach our goals and maintain consistency of services, and secure well-trained and equipped workforce”* (interviewee 5). Similarly, interviewee 4 mentioned that if Saudi Arabia wants to become the new regional hub of tourism, the government need to allocate more budget specifically for tourism and hospitality education and allow more foreign investments in that area.

The Engagement of Students in Developing Sustainable Tourism and Hospitality Education Programmes is a Key Success Factor to the Programmes

The views of participants regarding this aspect were contradicting. Interviewee 1 and 5 stated that students should only receive, i.e., passive learning, while interviewees 2, 3, and 4 believe that without the engagement of students the learning process will be in jeopardy. In addition, Interviewee 2 believes that engagement needs to be two-way i.e., between the instructor and the student, with the latter putting additional efforts to be part of the process, *“Programmes cannot*

follow the sage on a stage approach and needs to be try to find new ways to engage and help better educate students. At the same time, students need to try to be involved; some effort is required” (Interviewee 2). Interviewee 4 highlighted that allowing students to engage in discussing educational programmes is similar to managing by objectives *“the more they are involved the more they are eager to achieve the targets they have placed.”*

The Role of Educators and Their Institutions in Developing Sustainable Tourism and Hospitality Education Programmes, and How Can They Encourage Students to Take Part in The Process of Change

The role of educators is critical in developing educational programmes. The role of educators should not be limited to the delivery of the content, but also to include capacity building. Educators need to pave the way for students to learn and identify new trends in the industry, *“Educations are critical in developing sustainable T&H programmes since they are the ones who will be delivering the content. So, they need to know what to deliver and be involved in the development to secure their buy-in and support. However, it is important that other stakeholders, such as government and industry are also included. The critical thing for educators is not to teach students about the next trends, but teach students how to identify, exploit, and/or create the next trends. These are the timeless and industry-needed skills. This way, programmes can remain relevant and functional over a long period of time”* (Interviewee 2).

Similarly, Interviewee 3 highlighted the important role of educators in teaching students how to identify and evaluate new opportunities, rather than *“1960 tourism-related basics which no longer reflect the tech-savvy consumer.”*

Interviewees 4 and 5 mentioned that the buy-in of students is not easy to gain it requires efforts and *“brainstorming sessions between the instructors, academic supervisors, and students, the outcomes should be documented, and milestones should be set so that students feel committed”* (interviewee 5).

As how to enhance student engagement in the process, participants believe that it is also the role of the educator to explain the process clearly to students, what is expected from them, and in what sense so that they sense feel their role is essential in the change process towards a more sustainable education environment.

Interviewee 1: *“students are not always able or willing to get involved in course design and content. The offer should be made available to them to offer a more inclusive perspective, but educators are more in touch with what industry requires.”*

Interviewee 2: *“A good method to encourage greater student engagement in such change is to encourage them to suggest the changes; evaluate changes in the industry, create the disruptive systems they think can be the change and evaluate theirs and others’ ideas. This will keep them thinking critically about creating, evaluating, and adopting change.”*

Interviewee 3: *“students need to be encouraged to be part of the process in one way or the other, either by encouraging them to research and develop a plan for curricula updates or allowing them to deliver lectures themselves maybe they can think about the current material and see whether its logical and make sense compared to what they are seeing on the ground.”*

Interviewee 4: *“Motives and deliverables should be provided to students. They feel committed if they found plans that are achievable, meaningful, and measurable”.*

The Essential Components of Creating a Flexible Programme for Sustainable Tourism and Hospitality Education

Participants believe that regular engagement with industry stakeholders is an essential component of creating flexible programmes for sustainable tourism and hospitality education. Translating theories into practice, collaboration, research, and consulting activities can bring sustainable education programmes into the forefront of tourism and hospitality education and ensure those programs are always up-to-date, Interviewee 2 *“Regular engagement with the stakeholders and industry. If faculty and students regularly engage with stakeholders, they will better understand what is happening and be better able to incorporate such ideas. This can be done through guest lectures, internships, research, and consulting activities.”*

Embracing students’ innovation and creativity is an essential part of the process? Please explain.

All participants believe that embracing students’ innovation and creative will allow students to better identify opportunities and contribute to establishing sustainable tourism and hospitality educational programmes.

The Stages of Creating Sustainable Tourism and Hospitality Development Programmes

The following stages were suggested by the participants:

- 1- Understand what the intended outcome of the programme is.
- 2- Meet with stakeholders to gather their input on what the outcomes should be and cross-check with the initial outcomes.
- 3- Develop programme and structure
- 4- Develop more details on programme, courses etc.
- 5- Implement, monitor, and adjust when needed

Every step should be completed, while ensuring stakeholder engagement to ensure the programme is going in the right direction.

4.2. Feedback from Students

Feedback from students regarding sustainable tourism and hospitality education in the GCC region was collected through an online questionnaire that was distributed in both universities. A total of 28 responses were collected. The below table summarizes all the responses collected for every statement.

	STRONGLY AGREE (1)	AGREE (2)	NEUTRAL (3)	DISAGREE (4)	STRONGLY DISAGREE (5)	TOTAL	WEIGHTED AVERAGE
The tourism industry has been subject to several transitions during the past years	50.00% 14	35.71% 10	10.71% 3	0.00% 0	3.57% 1	28	4.29
Tourism/hospitality education is essential to equip students to join the industry's workforce	46.43% 13	39.29% 11	7.14% 2	3.57% 1	3.57% 1	28	4.21
Tourism/hospitality education in higher education reflects on the industry demands and changes	46.43% 13	39.29% 11	3.57% 1	7.14% 2	3.57% 1	28	4.18
Teaching methods need to be flexible to adapt to the rapid transitions in the tourism industry in the GCC region	59.26% 16	33.33% 9	3.70% 1	0.00% 0	3.70% 1	27	4.44
Changes in curricula is meeting the needs of students to accommodate the industry transformation in the region	33.33% 9	37.04% 10	18.52% 5	7.41% 2	3.70% 1	27	3.89
Collaboration between the public and the private sector is needed to achieve a sustainable tourism/hospitality education in the region	55.56% 15	40.74% 11	0.00% 0	0.00% 0	3.70% 1	27	4.44
Active engagement of students is needed in developing tourism/hospitality education curricula	51.85% 14	37.04% 10	3.70% 1	0.00% 0	7.41% 2	27	4.26
Educators need to embrace change and creativity to foster the development of sustainable educational programmes	55.56% 15	37.04% 10	0.00% 0	3.70% 1	3.70% 1	27	4.37
Institutions need to commit towards sustainability in tourism/hospitality education	55.56% 15	40.74% 11	0.00% 0	0.00% 0	3.70% 1	27	4.44
Sustainable tourism/hospitality education is not only about changing the curriculum but is also about creating an identity within the organisation which facilitates these learning processes	51.85% 14	40.74% 11	3.70% 1	0.00% 0	3.70% 1	27	4.37
Regular curricula assessments for the validations of sustainable tourism/hospitality education programmes should be facilitated to ensure the feasibility of those new programmes	40.74% 11	44.44% 12	7.41% 2	3.70% 1	3.70% 1	27	4.15
Sustainable tourism/hospitality education is needed to equip students to join the workforce of a highly demanding industry	40.74% 11	51.85% 14	0.00% 0	3.70% 1	3.70% 1	27	4.22

Table 1 - Summary of Questionnaire Responses

Most students (85.71% of total respondents) strongly agree and agree that the tourism and hospitality industry was subject to continuous transitions during the past years and that education is the main driver for the workforce to join the industry (85.72% strongly agree and agree). Furthermore, students believe that (85.72% strongly agree and agree) that current education curricula reflect industry demands and changes.

Although interviewees' perception is that educational schemes should not undergo significant changes, students believe (92.59% strongly agree and agree) that teaching methods

need to be flexible to adapt to the rapid transitions in the tourism and hospitality industry in the GCC region. Despite the disparity in perceptions towards the degree of flexibility needed to deliver educational programmes, students (70.37% strongly agree and agree) and academic professionals believe that changes in curricula is meeting the needs of students to accommodate the industry transformation in the region. Furthermore, both students (96.30% strongly agree and agree) and academic professionals are in agreement that collaboration between the private and the public sector is needed to achieve a sustainable tourism and hospitality education in the region.

Collaboration between students and academic professionals is an essential determinant in creating sustainable tourism and hospitality education in the region. Academic professionals believe that students need to be encouraged to actively engage in developing tourism and hospitality education curricula, which was also noted in the responses of students (88.89% strongly agree and agree). Similarly, both educators and students (92.60% strongly agree and agree) that creativity is an essential factor in developing and enhancing sustainable education in tourism and hospitality. Students (96.3% strongly agree and agree) that academic institutions need to commit towards sustainability in tourism and hospitality education.

As for the way forward, students (92.59% strongly agree and agree) believe that sustainable tourism and hospitality education is not only about changing the curriculum but is also about creating an identity within the organisation which facilitates these learning processes. In addition, students (85.18% strongly agree and agree) stress on the importance of conducting regular curricula assessments for the validations of sustainable tourism and hospitality education programmes should be facilitated to ensure the feasibility of those new programmes. Students (92.59% strongly agree and agree) that sustainable tourism/hospitality education is needed to equip students to join the workforce of a highly demanding industry.

BASIC STATISTICS					
	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
The tourism industry has been subject to several transitions during the past years	1.00	5.00	1.50	1.71	0.92
Tourism/hospitality education is essential to equip students to join the industry's workforce	1.00	5.00	2.00	1.79	0.98
Tourism/hospitality education in higher education reflects on the industry demands and changes	1.00	5.00	2.00	1.82	1.04
Teaching methods need to be flexible to adapt to the rapid transitions in the tourism industry in the GCC region	1.00	5.00	1.00	1.56	0.87
Changes in curricula is meeting the needs of students to accommodate the industry transformation in the region	1.00	5.00	2.00	2.11	1.07
Collaboration between the public and the private sector is needed to achieve a sustainable tourism/hospitality education in the region	1.00	5.00	1.00	1.56	0.83
Active engagement of students is needed in developing tourism/hospitality education curricula	1.00	5.00	1.00	1.74	1.07
Educators need to embrace change and creativity to foster the development of sustainable educational programmes	1.00	5.00	1.00	1.63	0.95
Institutions need to commit towards sustainability in tourism/hospitality education	1.00	5.00	1.00	1.56	0.83
Sustainable tourism/hospitality education is not only about changing the curriculum but is also about creating an identity within the organisation which facilitates these learning processes	1.00	5.00	1.00	1.63	0.87
Regular curricula assessments for the validations of sustainable tourism/hospitality education programmes should be facilitated to ensure the feasibility of those new programmes	1.00	5.00	2.00	1.85	0.97
Sustainable tourism/hospitality education is needed to equip students to join the workforce of a highly demanding industry	1.00	5.00	2.00	1.78	0.92

Table 2 - Summary of Descriptive Statistics

Finally, most respondents (17 out of 29) believe that the below aspects are the components of sustainable tourism and hospitality education programmes:

- Changes in technology
- Socio economic state of affairs
- Changes in market dynamics
- Customers' preferences

Answers were distributed as follows:

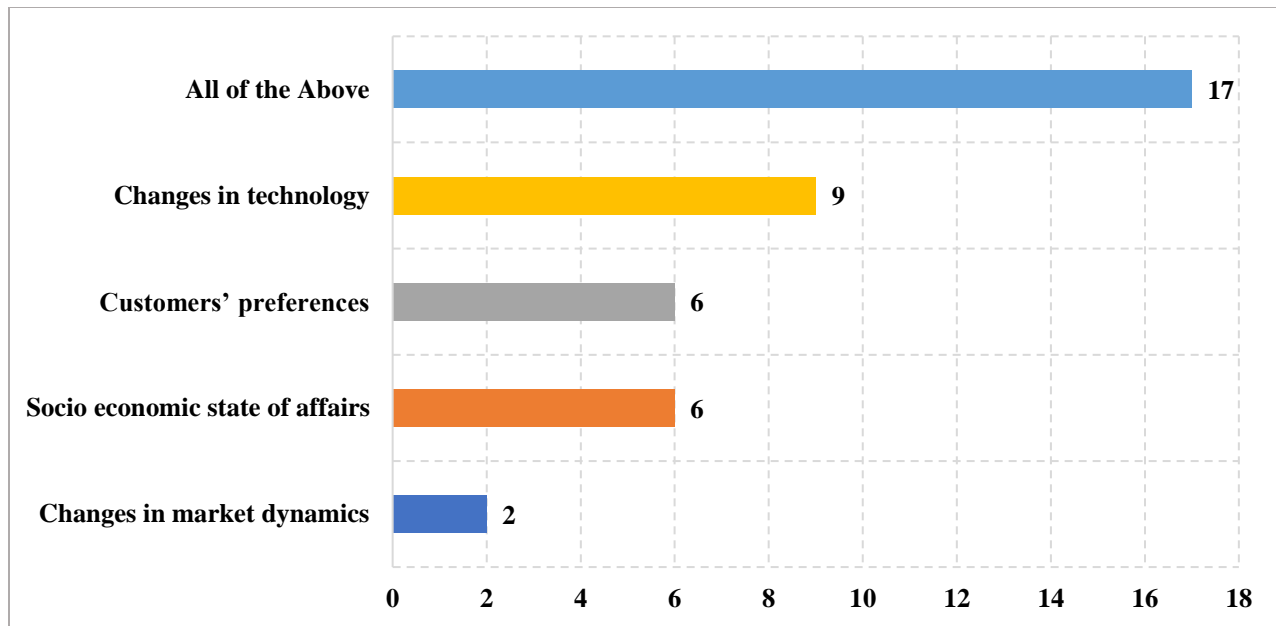


Figure 1 - The components of sustainable tourism/hospitality education

5. Discussion

According to Rasool et al. (2021), the industry witnessed several transitions during the past decades, notably during COVID-19 when the industry experienced a paradigm shift in consumers' behaviour and educational practices occurred (Mehroliya, Alagarsamy, & Solaikutty, 2020). On the same front, both interviewees and students believe that the industry witnessed several challenges and transition phases in the GCC region. Although the industry in the GCC region is well known for delivering high-quality service, interviewees believe that the industry needs to rely more on local graduates rather than hiring talents from abroad. This will not only help the industry to prosper further and contribute to economic development (Sharma, Thomas, & Paul, 2021) but also ensure better sustainable service delivery as local graduates are well aware of the market needs.

Several authors (Mínguez, Martínez-Hernández, & Yubero, 2021; Slocum, Dimitrov, & Webb, 2019) have criticised tourism and hospitality education for being highly influenced by managerial ideology and market capitalism that suppresses critical thinking and creativity and focusing only on market-oriented learning, interviewees believe that their institution ensures that their programme allows the student to develop critical thinking skills, which is essential for sustainable tourism education. In addition, students stressed the importance of creativity in developing and enhancing sustainable education in tourism and hospitality. Students (96.3% strongly agree and agree) that academic institutions need to commit to sustainability in tourism and hospitality education. Similarly, several authors (Belhassen & Caton, 2011; Mair & Sumner, 2017) argue that pedagogical frameworks based on critical thinking and vocational training (Dredge, et al., 2012; Tribe, 2002) are the way forward to creating sustainable education programmes in tourism and hospitality.

A recent study conducted by Mínguez et al. (2021) aimed to assess the readiness of tourism and hospitality students and teachers to deal with the COVID-19 crisis in Spain. The study concluded that stakeholders need to create a more sustainable educational programme in

higher education and need to revise all current national educational programmes. Similarly, interviewees believe that sustainable tourism and hospitality education programmes should be given more focus in the GCC region. Participants believe that continuously changing education styles, content, and programmes need to be carefully managed so that the core educational programmes are not disrupted. Conversely, students advocated for more flexibility to adapt to the rapid transitions in the tourism and hospitality industry in the GCC region.

According to Solcum et al. (2019), curricula focus on job skills to address the preferences and expectations of the employer, ignoring aspects such as cultural influence, research, and the change in market dynamics, which are the determinants of sustainable tourism and hospitality education. However, both academic professionals and students in the GCC region believe that current education curricula reflect industry demands and changes. Although none of the reviewed articles highlighted the importance of collaboration between industry stakeholders to create sustainable tourism and hospitality educational programmes, both academic professionals and students' responses included in this study stated that collaboration between academia and the industry is an essential determinant in creating sustainable tourism and hospitality education in the region. Furthermore, Interviewees and survey participants believe that students' engagement in creating sustainable tourism and hospitality education programmes is essential. Also, interviewees believe that the instructor must encourage the regular engagement of students in creating sustainable education programmes to ensure the sustainability of education as a whole.

McGrath et al. (2021) stated that there are significant gaps in current tourism and hospitality programmes when it comes to sustainability. Schweinsberg et al. (2013) emphasize the importance of building a tourism and hospitality industry that is focused on sustainability coupled with essential business needs. This was also confirmed by students who believe that sustainability, in addition to changes in curricula, needs to create an identity for sustainability within the organisation that facilitates these learning processes. As for the way forward, students believe the following aspects are the components of sustainable tourism and hospitality education programmes, (1) changes in technology, (2) socio-economic state of affairs, (3) changes in market dynamics, and (4) customers' preferences. According to Mínguez et al. (2021), sustainability metrics need to include humanistic, sociological, legal, economics and marketing, linguistics, instrumental, and integral sciences.

6. Conclusion

This study aimed to discuss sustainable tourism and hospitality education in the GCC region. Although several authors (Rasool, Maqbool, & Tarique, 2021; Heagneya, Rose, Ardeshiri, & Kovac, 2019; Mínguez, Martínez-Hernández, & Yubero, 2021; Cooper & Shepherd, 1999) have criticised current education schemes for focusing on market needs rather than sustainability, data collected in this study shows that current tourism and hospitality education programmes in the GCC region focus on sustainability. Current education schemes in the GCC region reflect the changes in market dynamics and allow students to develop critical thinking skills, which are essential for sustainable tourism education. That being said, participants in this study believe that sustainable tourism and hospitality education programmes should be given more focus, by encouraging students and industry stakeholders to take part in forming those programmes. Moreover, participants stressed the importance of fostering collaboration between the public and private sectors to enhance current education programmes.

On the other hand, data collected for this study shows that academic professionals believe that continuously changing academic curricula should be carefully managed so that the core educational scheme is not disrupted. Conversely, students advocated for more flexibility to adapt to the rapid transitions in the tourism and hospitality industry in the GCC region. This study believes that the degree of change should take into consideration that education has core values that should be maintained while inserting the needed changes to ensure that educational programmes are sustainable and satisfy business needs (Schweinsberg, Wearing, & McManus, 2013). Mínguez et al. (2021), revealed that sustainability metrics need to include humanistic, sociological, legal, economics and marketing, linguistics, instrumental, and integral sciences. On the same front, this study concluded that the components of sustainable tourism and hospitality education programmes are (1) changes in technology, (2) socio-economic state of affairs, (3) changes in market dynamics, and (4) customers' preferences.

Although the data collected have revealed essential themes that require investigation on a larger scale to include more universities from different GCC countries. A comparative analysis between regions might also be beneficial to uncover new themes related to sustainable tourism and hospitality education. The sample taken for this research is considerably small yet raises an important topic that needs attention in the future. The findings of this research should be an eye-opener for academics and industry stakeholders to start working hand in hand with government agencies to begin working on academic material that reflects the needs of the industry, students, and consumers.

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8. Appendices

8.1. Appendix A: Interview Questions

- 1- In brief, please explain the current state of affairs of the tourism and hospitality industry, challenges, changes, and the way forward (in both the education sector and the industry itself).
- 2- Please describe the status of tourism and hospitality education programmes at universities in the GCC region. What are their strengths, weaknesses, changes needed (if any), their purpose, and future?
- 3- Do you believe that current curricula in tourism and hospitality management at your institution meets the demands for, and changes in, the market? Please describe how.
- 4- Do you believe that sustainable tourism and hospitality education programmes should be given more focus? If so, why/ or why not? Please elaborate.
- 5- Do you think that sustainable tourism and hospitality education requires developing a holistic approach between the private and public sectors? Please explain.
- 6- Do you think that the engagement of students in developing sustainable tourism and hospitality education programmes is a key success factor to the programmes? Please elaborate.
- 7- Please explain the role of educators and their institutions in developing sustainable tourism and hospitality education programmes, and how can they encourage students to take part in the process of change?
- 8- In your opinion, what are the essential components of creating sustainable tourism and hospitality education programmes? And how can you ensure that the programme is flexible in adapting to the changes in market dynamics? Please explain.
- 9- Do you believe that embracing students' innovation and creativity is an essential part of the process? Please explain.
- 10- In your opinion what are the stages of creating sustainable tourism and hospitality development programmes? Please explain.

8.2. Appendix B: Questionnaire

	SA, 1	A, 2	N, 3	D, 4	SD, 5
1. The tourism industry has been subject to several transitions during the past years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Tourism/hospitality education is essential to equip students to join the industry's workforce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Tourism/hospitality education in higher education reflects on the industry demands and changes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Teaching methods need to be flexible to adapt to the rapid transitions in the tourism industry in the GCC region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Changes in curricula is meeting the needs of students to accommodate the industry transformation in the region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Collaboration between the public and the private sector is needed to achieve a sustainable tourism/hospitality education in the region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Active engagement of students is needed in developing tourism/hospitality education curricula	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Educators need to embrace change and creativity to foster the development of sustainable educational programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Institutions need to commit towards sustainability in tourism/hospitality education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Sustainable tourism/hospitality education is not only about changing the curriculum but is also about creating an identity within the organisation which facilitates these learning processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Regular curricula assessments for the validations of sustainable tourism/hospitality education programmes should be facilitated to ensure the feasibility of those new programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Sustainable tourism/hospitality education is needed to equip students to join the workforce of a highly demanding industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. The components of sustainable tourism/hospitality education need to take into account: (multiple options can be selected)

Changes in technology	<input type="checkbox"/>
Socio economic state of affairs	<input type="checkbox"/>
Changes in market dynamics	<input type="checkbox"/>
Customers' preferences	<input type="checkbox"/>
All of the above	<input type="checkbox"/>