

Athens Journal of Tourism



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Front Pages

PETER JONES

[Plant-based Food in the Hospitality Industry: An Exploratory Case Study of Leading Fast Food Outlets](#)

VIANA HASSAN & GEORGES BELLOS

[COVID-19: Reshaping Medical Tourism through Artificial Intelligence \(AI\) and Robotics](#)

MASOOMA AL-BALUSHI

[The Tourism Department of Sultan Qaboos University Undergraduate Program Accreditation by AQAS: The Journey and What it Entails](#)

SVETOSLAV KALEYCHEV

[Theoretical Foundations of Marketing Research in Tourist Destinations](#)

Athens Journal of Tourism

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The *Athens Journal of Tourism (AJT)* is an Open Access quarterly double-blind peer reviewed journal and considers papers from all areas of tourism and related disciplines such as culture, leisure, recreation, geography, urban planning, heritage, sports, historical cities, landscape, architecture etc. The AJT considers theoretical and empirical papers as well as case studies and policy papers. The journal's aim is to be useful to both academics of tourism research and the practitioners of the tourism industry. Many of the papers published in this journal have been presented at the various conferences sponsored by [the Tourism, Leisure & Recreation Unit](#) of the Athens Institute for Education and Research (ATINER). All papers are subject to ATINER's Publication Ethical Policy and Statement. A journal publication might take from a minimum of six months up to one year to appear. All papers are subject to ATINER's [Publication Ethical Policy and Statement](#).

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<u>Front Pages</u>	i-viii
<u>Plant-based Food in the Hospitality Industry: An Exploratory Case Study of Leading Fast Food Outlets</u> <i>Peter Jones</i>	63
<u>COVID-19: Reshaping Medical Tourism through Artificial Intelligence (AI) and Robotics</u> <i>Viana Hassan & Georges Bellos</i>	77
<u>The Tourism Department of Sultan Qaboos University Undergraduate Program Accreditation by AQAS: The Journey and What it Entails</u> <i>Masooma Al-Balushi</i>	99
<u>Theoretical Foundations of Marketing Research in Tourist Destinations</u> <i>Svetoslav Kaleychev</i>	115

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The current issue is the second of the ninth volume of the *Athens Journal of Tourism*, published by the [Tourism, Leisure & Recreation Unit](#) of ATINER.

Gregory T. Papanikos
President
ATINER



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- Submission of Paper: **21 February 2023**

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-

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- **Dr. Peter Jones**, Co-Editor, [Athens Journal of Tourism](#) & Professor of Management, University of Gloucestershire, UK.

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Plant-based Food in the Hospitality Industry: An Exploratory Case Study of Leading Fast Food Outlets

By Peter Jones *

Plant-based food is one of the growing sectors within the food industry, and fast food companies may have an important role to play in driving both the trialling, and the consumption, of plant-based foods. This exploratory paper outlines the growth of plant-based foods, explores how the leading fast food companies are incorporating plant-based foods into their menus, and offers some wider reflections on the fast food companies' approach to plant-based food. The findings reveal that the leading fast food companies within the UK were promoting their plant-based menu items at both the corporate and outlet level. That said, the fast food companies made little, or no, attempt to associate the introduction of plant-based menu items with a healthier diet, and the author suggested that substantially increasing their plant-based menus could provide a challenge to the fast food companies' traditional business models. More generally, the paper concluded that in the medium-term future, the fast food companies are likely to play a limited, rather than a leading, role in driving plant-based consumption across society, and in contributing to a more sustainable future.

Keywords: *plant-based foods, fast food companies, menus, healthy diets, sustainable futures*

Introduction

Plant-based food is one of the growing sectors within the food industry. Deloitte (2019), for, example, argued, “gone are the days when plant-based alternative products were for the niche consumer and warranted limited shelf space”, that the “global meat and dairy sector is currently going through an unprecedented level of competition and disruption, driven by the growth of viable plant-based alternatives across many categories”, and that “companies across the spectrum are now investing heavily in acquiring and creating new products and brands which will appeal to the surging consumer demand for plant-based products”. A number of factors are responsible for the growth in the plant-based food market, including human health considerations, animal welfare issues and environmental concerns.

Bloomberg Intelligence (2021) argued that “restaurants and other food service companies will play a critical role in driving long-term trial and consumption of plant-based products”. More specifically, Deloitte (2019) reported “many restaurants, casual dining venues, and fast food chains now have dedicated meat free sections to their menu, as the popularity of a vegan or indeed flexitarian diet continues to increase”. With this in mind, this short exploratory paper outlines the

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growth of plant-based foods, explores how the leading fast food companies within the UK are incorporating plant-based foods into their menus and offers some wider reflections on the fast food companies' approach to plant-based food.

Plant-based Food

The term plant-based was coined in 1980, by Colin Campbell, a medical research scientist, who was looking for “a word that had the same dietary connotations of the word vegan, without the animal advocacy associations” (Root the Future 2020). Plant-based foods are generally classified into fruits, vegetables, legumes, grains, nuts and seeds. However, defining plant-based food is not straightforward and, in some ways, consumers' understandings of the meaning of the term are still evolving. The British Standards Institute (2020a) suggested that “many foods are labelled as 100% plant-based without a consensus on how that label should be used”.

In looking to answer the question “What does plant-based mean?”, Clark (2021), writing under the banner of the Plant-Based Network, suggested

“it is having a focus on consuming foods that come from plants and other natural sources. It does not necessarily mean abstaining from meat or dairy entirely, but it does prioritize eating plants as the main source of nutrients and energy. It also encourages eating as little meat as possible, ideally no meat at all, although that is not mandatory”.

In an attempt “to enable consumers to make informed choices”, the British Institute (2020a) established “clear and simple criteria to define 100% plant-based food”. Here the key components are that 100% plant-based foods “contain no ingredients from animals”, but that they can contain “ingredients of neither plant nor animal origin, such as water or salt”, and that the term applies “solely to ingredients, and not to production and/or manufacturing processes” (British Standards Institute 2020b).

The term plant-based is often used in association with the terms, vegetarian and vegan. While there is no single accepted definition of the term vegetarian, it is usually used to describe a person who does not eat meat, poultry, fish or shellfish, or any of the by-products of animal slaughter, while lacto-ovo-vegetarians include dairy products and eggs in their diet. A vegan does not eat any products of animal origin, and vegans do not eat any dairy products and eggs, and many of them do not eat honey, as well as avoiding animal-derived materials such as gelatine or vitamin D3 supplements. The term flexitarian is often used to describe people who still consume meat and dairy products but are looking to reduce their consumption levels.

At the same time, for Ostfeld (2017) “a plant-based diet consists of all minimally processed fruits, vegetables, whole grains, legumes, nuts and seeds, herbs, and spices and excludes all animal products, including red meat, poultry, fish, eggs, and dairy products”. Jaske et al. (2019) suggested that “the concept of a plant-based diet can have various definitions in the scientific literature; from

excluding all animal source foods to including only a greater intake of vegetables, fruit, fruit juices, cereals, and legumes, while also preserving the intake of fish, pork, and yoghurt". For the British Nutrition Foundation (2019) "plant-based diets are dietary patterns that have a greater emphasis on foods derived from plants", while Harvard Health (2021) suggested that "plant-based or plant-forward eating patterns focus on foods primarily from plants", but that "doesn't mean that you are vegetarian or vegan and never eat meat or dairy.....rather, you are proportionately choosing more of your foods from plant sources".

While recent years have witnessed an increase in the availability, and the popularity, of plant-based food, it is not a new phenomenon. Indeed, plant-based diets are traced back before recorded history, in that early humans ate a virtually exclusively plant-based diet before they began to hunt, transport and prepare animals for consumption. Some commentators have linked respect for all animal life to many early cultures and religions. Clark (2021), for example, identified "plant-based living" as a characteristic of Jainism as practised in India some 2,500 years ago, and also linked it to Hinduism, Taoism and Buddhism during the same time period. In more modern times a number of vegetarian societies were formed in the UK in the nineteenth century and since then their underlying goal has been to promote abstaining from meat and from the by-products of animal slaughter. Charting the modern growth of plant-based foods is an elusive task, but the World Economic Forum (2019) estimated that the worldwide demand for plant-based protein has grown from some 70 million tonnes per annum in 1980, through 100 million tonnes in 2000, to 150 million tonnes in 2020.

While it is difficult to measure the total size of the market for plant-based food a number of estimates suggest that it is growing rapidly. Bloomberg Intelligence (2021), for example, reported that global sales of plant based dairy and meat alternatives reached \$29.4 billion in 2020, and that the market could increase to \$162 billion by 2030. Putting this figure into wider perspective, this will only constitute 5% of the total food market. The Good Food Institute (2022) reported that sales of plant-based products in the US, grew by over 25% in 2020-2021 to some \$7 billion, and that in 2020 plant-based food sales grew twice as fast as overall food sales. Within Europe, Statista (2021a) reported that during the period October 2019 to September 2020, sales of plant-based meat substitutes grew by 76% in Germany, 52% in Austria, 36% in the UK and 32% in Spain, though the corresponding figures for France and Italy were much lower at 9% and 1% respectively.

A number of forces are seen to be important in driving this market growth. Human health and well-being, and more specifically, the growing importance of the "health conscious consumer" Deloitte (2019), are seen as one of the major drivers. Here the growth of plant-based foods reflects growing concerns that the regular presence of red meat and processed meat in diets poses major health risks. Richi et al. (2015), for example, argued that evidence from the US and Europe, indicated that "the long-term consumption of increasing amounts of red meat, and particularly of processed meat, is associated with an increased risk of total mortality, cardiovascular disease, colorectal cancer and type 2 diabetes, in both

men and women”. More generally, plant-based diets are seen to assist in weight management and in promoting better overall health.

Growing concerns about animal welfare are also driving the growth of the plant-based food market. Essentially, the concept of animal welfare is concerned with how an animal is coping with the conditions in which it lives, and it is generally seen to include three elements, namely, an animals’ normal biological functioning, its emotional state, and its ability to express normal behaviours. While animal welfare embraces a wide range of themes, including care for domestic pets, the exploitation of animals for commercial purposes, and animal experimentation in science and medical laboratories, it is the ways animals are treated in modern intensive agricultural production systems, that is the major issue driving growing consumer interest in plant-based foods. In addressing modern agricultural practices, Clark et al. (2016), for example, identified some of the damaging impacts of increased productivity on the welfare of farm animals and highlighted public concerns about such impacts. The Humane Society International (2022) claimed that “more than 80 billion land animals are killed for food globally every year - often enduring unfulfilling lives of suffering - plus an untold number of aquatic animals”.

A range of environmental concerns about meat and poultry production, are also seen to be important driving the increasing popularity of plant-based food. These concerns include the pollution of watercourses, deforestation, the loss of biodiversity, soil degradation, and greenhouse gas emissions, and ultimately many of these factors are seen to be contributing to climate change. Meat production causes greenhouse gas emissions, for example, through the release of methane as animals digest food, through the decay of animal manure, through nitrogen-based fertiliser use and through the deforestation to enable cattle farming. Ritchie and Roser (2021), for example, reported that beef herds are responsible for producing 99.48 kilograms of greenhouse gas emissions per kilogram of food product, with the corresponding figures for lamb and mutton, dairy herds, pig meat and poultry meat being 39.77, 33.3, 12.31, and 9.87 kilograms, respectively. At the same time, the corresponding figures for potatoes, bananas, peas, and rice are 0.46, 0.86, 0.98, and 4.45 kilograms, respectively.

Widening the both the range of ingredients and the product range of plant-based foods has also served to drive their market growth, and has offered consumers more choice and new flavours. Soy, oat coconut, almond rice, and hemp, for example, have been used to produce milk alternatives. At the same time, Bloomberg Intelligence (2021) suggested that “restaurants are an easy venue to try a plant-based meat or dairy product and can influence shopping for at-home consumption”. More specifically, Bloomberg Intelligence (2021) argued that “large restaurant chains, including Starbucks, Burger King, Del Taco and Taco Bell have played a critical role in advertising menu items and driving customer interest and trial sales”, and in exploring “how the plant-based trend found its roots in fast food”, Volmer (2020) claimed that “as fast food brands capitalize on the growth of plant-based diets, they have the scale to take a growing movement mainstream”.

Cameo Literature Review

The hospitality industry's impact on society, the economy, and the physical environment in which it operates continues to attract considerable attention within the academic literature (e.g., Legrand et al. 2016, Jones et al. 2016, Parsa and Narapareddy 2021). While research in this genre has addressed an extensive range of themes, work on plant-based food in the hospitality industry, and more specifically in the fast food sector, has been limited. With that in mind this cameo literature review outlines this limited work and also illustrates some of the literature on the impact of fast food on both human and animal welfare, and the role of plant-based food in the transition to a more sustainable future, which seem to be relevant to the current study. As such, this review provides an academic context and a set of reference for the paper.

Very little research has been published on plant-based food in the fast food sector of the hospitality industry, but two papers merit attention. Larson (2020), provided a case study of the Plant Power Fast Food company, "a 100% plant-based brand", founded in San Diego in 2016, which had seven restaurants and a mobile truck operation four years later. The company's vision statement emphasised that "by demonstrating the viability of a plant-based, cruelty free, environmentally sustainable and healthier alternative in the fast-food restaurant format, we seek to expose millions of consumers to convenient and delicious plant-based meals" (Larson 2020). Looking to the future, Larson (2020) argued that the company will continue to change the landscape of the fast food industry, but recognised that as the company continues to expand it will need to forge new relationships with different suppliers.

Attwood et al. (2019) recognised that a number of fast food companies had added plant-based options to their menus, but in arguing that there was still much that the fast food sector could do to ensure that customers shift from meat towards these new menu additions, they suggested a number of development strategies which could be accommodated within existing business models. These strategies included using evocative language on menus to emphasise the positive attributes of plant-based items; listing plant-based items in the main body of the menu rather than in a separate vegetarian section; increasing the variety of plant-based items on the menu; and encouraging staff to promote plant-based options by recommending them as tasty and satisfying choices, rather than focusing on their environmental or health benefits.

Looking more widely across the hospitality industry, a variety of research themes can be identified, though the work on plant-based food within the industry is fragmented and it lacks a coherent framework. Drawing their empirical information from Taiwan, Chang et al. (2021) looked to examine the relationship among motivations, satisfaction and loyalty with plant-based food dining at destinations, and to determine if, and how, the attraction of plant-based dining moderated customer satisfaction and loyalty. The authors found that a positive relationship between motivations and satisfaction and loyalty in plant-based food dining, and motivations were found to comprise physical, cultural, interpersonal and prestige domains, while satisfaction and loyalty had three dimensions, namely

overall satisfaction, intention to revisit, and intention to recommend. However, food attractiveness did not moderate the effect of motivations on satisfaction and loyalty. At a practical level, the authors concluded that plant-based restaurant operators and managers should have a deeper understanding of the distinctive characteristics of their target market.

Guachalla (2021) looked to understand how people following a plant-based diet for environmental, ethical, and health reasons influenced tourists' destination images from cognitive, affective and conative dimensions. The findings suggested strict plant-based diets stimulated "destination images of social belonging, images off-the-beaten-track, images of cosmopolitanism, and images of emotional solidarity rooted in these tourists' personal normative belief". The author also concluded that people following plant-based diets adapted their travel patterns and itineraries in their quest to find the businesses that catered for them. Sommit and Boonpaisarnsatit (2020) looked to identify the elements that contribute to the local-plant based gastronomy tourism experience in three area of Chiang Mai province in Thailand. The finding revealed that 21 local plants were contributing to the plant-based tourism experience, and the authors suggested that young chefs and health conscious people were the major target tourists, and that good conservation of local plants and effective communication via social media were crucial to the successful development of the tourism experience.

Bertella (2020) explored the possible experience design strategies for plant-based restaurants targeting a customer segment that is not limited to vegetarians. His findings suggested that although several design strategies that applied to generic restaurants were also relevant for plant-based restaurants, a number of additional considerations, including the quality of the food, the restaurant's atmosphere, and the attitude of all the staff that come into direct contact with customers are also vitally important. In recognising that vegetarians are a varied and heterogenous group, and that this means that hospitality workers must offer a wide variety of meals and combinations of plant origin, Šmugović et al. (2021) looked to gain a better insight into the awareness and attitudes of hospitality management towards plant-based foods.

The impact of fast food on human health has attracted research attention. Work on the "healthiness of US fast food meals 2008-2017" by Alexander et al. (2020), for example, revealed that significantly fewer fast food meals met the American Hospital Association's calorie criterion in 2015, 2016, and 2017, compared to 2008, and that there were no significant changes over time in the percentage of meals meeting the American Hospital Association's criteria for saturated fat, cholesterol or sodium. More specifically, research has been undertaken to address concerns that fast food is a significant cause of obesity in children and young people. In concluding a study of fast food consumption among young adolescents in low- and middle-income countries, Li et al. (2020), for example, emphasised the urgent need to prioritise the implementation of healthy diet programmes to improve adolescent health in these countries.

Animal welfare is an increasingly high-profile issue within many societies and widespread concerns have been expressed about the ways animals are treated in modern intensive agricultural production systems. Research on how fast food

companies, particularly those companies where meat- and chicken-based products are dominant menu items, has attracted attention in the literature. Well over a decade ago, Adams (2008), for example, suggested that while some fast food chains had responded to pressure for changes in animal welfare, concerns still remained that steps taken to address supplier misconduct and noncompliance were limited. More recently, Jones and Comfort (2022) explored how some of the leading fast food companies have addressed animal welfare, and suggested that the companies' commitments to animal welfare were aspirational, and at least one step removed from the production process, and that there are concerns about the auditing and external assurance processes, that many companies employed to promote high levels of animal welfare.

More generally, the environmental impact of fast food companies has attracted increasing research attention, and here the need to move to a more sustainable future has often been a focal point. Beverland (2014), for example, argued that "livestock production has an enormous impact on climate change emissions, resource use, habitat loss, and the availability of staples for consumers in developing countries", while Alae-Carew et al. (2022) suggested that "our current global food systems and patterns of consumption are unsustainable for human and planetary health". Further, Alae-Carew et al. (2022), argued that "a global transformation towards sustainable food systems is crucial for delivering on climate change mitigation targets worldwide. In high- and middle-income settings, plant-based meat and dairy alternatives present potential substitutes for animal sourced foods, and a pathway to transition to more sustainable diets".

Methodology

Given the perceived importance of fast food companies in popularising plant-based foods, this paper looks to explore how the leading fast food chains in the UK promoted plant-based menu items on their websites, and in store. Ten companies, namely, McDonalds, Subway, Kentucky Fried Chicken, Starbucks, Burger King, Pizza Hut, Dominos, Nando's, Costa Coffee, and Café Nero which were the leading fast food companies amongst the UK's most popular dining brands (Statista 2021b) were selected to provide the frame of reference for the study. The selected fast food companies specialise in a range of different menu items, and as such, can be seen to reflect the potential variety of plant-based foods within the UK's fast food sector.

In looking to explore if, and how, the selected companies promoted plant-based menu items, the author adopted a simple twin tack approach, though in pursuing this approach the focus was on how the leading fast food companies approached plant-based menu items rather than on a comparative analysis of their plant-based menus. Firstly, an internet search using the key phrase, plant-based menu and the name of each of the selected fast food companies, was conducted in January 2022 using Google as the search engine. Secondly, the author undertook a simple observational survey of if, and how, the selected fast food companies looked to promote plant-based menu items in their outlets. The survey was

undertaken in each of the selected companies' outlets within Cheltenham, a town with a population of some 115,00 people, located in the South West of England, during January 2022.

The author recognised that while this simple, approach was fit for purpose in an exploratory study, it has its limitations. There are issues, for example, about the extent to which the information on plant-based food posted on the Internet genuinely reflects corporate thinking, but the author believes this to be appropriate in an exploratory review. At the same time, the outlet survey provides a snap shot, at a particular place, and point in time, of how the selected companies were looking to promote their plant-based menu items. However, the author suggests that such a survey was easily executed and readily replicable, and that it captured an accurate picture of how information on the availability of plant-based menu items were, or were not, being presented to customers at the point of sale.

Findings

The findings revealed that the majority of the selected fast food companies promoted their plant-based menu items but there were variations in the scale, and in some cases arguably in the authenticity, of their offer. However, rather than describing the full details of how each of the companies promoted their plant-based offer, three themes, namely, corporate mission, headline items, and menu listings, can be identified, though not all companies focused on each of these themes.

Some of the companies promoted plant-based foods as an important element in their mission. Starbucks (2022), for example, argued that “building on Starbucks sustainability commitment, the company’s goal is to expand plant-based choices as an environmentally friendly menu contributes to our goal to be a resource positive company”, and to that end Starbucks (2022) “continues to introduce new drinks and food to menus globally while innovating with plant-based ingredients across key platforms like espresso, cold brew, refreshment, food and more”. Further, the company claimed that “customer interest in the plant-based food market has continued to grow with a 9% increase between 2019 and 2020 and reports of a substantial shift in customer demand worldwide”, that “our aim is to provide our customers a variety of choices as part of their Starbucks experience and we look forward to hearing feedback from our partners (employees) and customers”, and emphasised “expanding Starbucks plant-based menu globally is one of the ways we are pursuing our goal to reduce our carbon footprint by 50%” (Starbucks 2022).

Burger King (2021) reported “at Burger King we believe in living, and, maybe more importantly eating Your Way”, and “that is why we want to be the global leaders in Plant-based alternatives in the quick-service industry”, and “our aim is to do this by offering vegan, vegetarian and plant-based alternative that do not compromise on flavour or price”. In a similar vein, in promoting “Beyond Fried Chicken”, Kentucky Fried Chicken (Yum Brands 2022), reported “the mission

from day one was simple-make the world-famous Kentucky Fried Chicken from plants”, and “over two years later we can say mission accomplished”.

Some of the selected companies, perhaps most iconically, McDonalds, headlined plant-based items on their corporate websites. McDonalds (2022) highlighted the “McPlant”, which the company describes as “a vegan burger made with a juicy plant-based patty”, which contains “vegan sandwich sauce, ketchup, mustard, onion, pickles, lettuce, tomato, and a vegan alternative to cheese in a sesame seed bun”. The company claimed “pea protein is one of the main ingredients in the patty, along with other quality ingredients which are turned into a great tasting meat alternative”, and that the “McPlant is cooked separately from other McDonald’s burgers and sandwiches, using dedicated equipment to ensure it doesn’t come into contact with meat products” (McDonalds 2022).

Nando’s (2022) website suggested “if you’re looking for something plant-based, we’d recommend trying The Great Imitator, which tastes just like our famous PERi-PERi chicken, but it’s made completely from pea-protein”. However, this suggestion comes with two warnings, namely “we just need to mention that although our kitchens aim to keep all plant-based products away from ingredients derived from animal origin, we cannot guarantee this”, and that while “The Great Imitator is a plant-based recipe however the wrap and baste contain shellac” (Nando’s 2022). Burger King (2021), described its “Vegan Royale”, the “new variant of our iconic chicken burger” as “the crowning glory of our plant-based menu”.

Plant-based menu items, were promoted by all the selected companies, though such items were normally very much in the minority on their menus, and in some cases the plant-based description was qualified. The Subway (2021a) website, for example, advertised its “Plant Patty”, which was described as being “packed with red onion, red and green peppers, carrot, spinach, corn, white cabbage, peas, and green chillies”, with the message “this patty’s for plant lovers”. However, this advertisement was accompanied by the caution that “our plant-based ingredients may come into contact with non-plant-based ingredients” (Subway 2021a). Subway also listed other plant-based menu items including the “Tastes Like Chicken Tikka”, and the “Meatless Meatball Marinara” (Subway 2021b). Kentucky Fried Chicken (n.d.) suggested “if you’re looking for finger lickin’ flavour without the chicken, you’re in the right place. Coated in our famous 11 herbs and spices, our Original Recipe Vegan Burger will definitely satisfy your plant-based cravings”.

Costa Coffee (2020) listed its “Veggie Breakfast Box”, the “Vegan Bac’n Breakfast Bap”, and the “Vegan Macaroni Cheese”, amongst its food menu items. However, though the cream cheese in the latter item was described as being dairy free, the ingredients of the breakfast box included free range eggs. Pizza Hut (2022) suggested that “when it comes to vegan dining, it can often be hard to find delicious food that fits the bill for a plant-based diet”, but claimed “this is where Pizza Hut Restaurants come into play. With a truly awesome Vegan menu, including Vegan Pizzas’ Sides and Deserts, we really are the place to be for yummy vegetarian food”.

The observational survey revealed that some of the selected fast food companies advertised at least one of their plant-based menu items, prominently at

their outlets, as illustrated below. A large canvas sign outside the McDonalds outlet, for example, showed an image of “McPlant”, described as “Our Iconic Taste, Plant Based”, while each tray provided for customers eating in the restaurant, had a placeholder mat, which provided full details of all the ingredients of the “McPlant”. A poster holder advertising board on the pavement outside Caffè Nero advertised its “Plant Powered Breakfast”, described as “protein rich plant-based sausages in a freshly toasted ciabatta”, and its “Plant Powered Panini”, described as a “spicy chicken style panini made from pea and soy protein”. A poster in the front window of the Subway outlet, read “Plant Based Big Taste”, to promote its TLC (Tastes Like Chicken) sub, while an illuminated sign above the counter read “Plant-Based Meal Big Deal”. The posters in the window of the Kentucky Fried Chicken and the Domino’s outlets both advertised the companies’ vegan offers but made no mention of them being plant-based.

Concluding Reflections

The findings revealed that the leading fast food companies within the UK were promoting their plant-based items at both the corporate and outlet level. That said, a number of issues merit concluding reflection. The general emphasis of the companies’ promotions is on plant-based additions to their menus, but the leading fast food companies made no attempt, for example, to associate the introduction of plant-based menu items with a healthier diet. On the one hand, this raises general issues about advantages and disadvantages of a plant-based diet, and while many advantages have been identified, including lower cholesterol and saturated fat intakes, and reductions in the incidence of chronic inflammatory diseases, there are also concerns about protein, and certain nutrient, deficiencies. At the same time, and particularly with the onset of the COVID-19 pandemic, it is important to recognise that many consumers have looked towards immunity by increasing the number of medicinal and ayurvedic plant extracts, such as garlic, ginger and turmeric, in their food intake, and here many fast food companies, who use such extracts in some of their products, can be seen to be helping to assuage consumers’ health concerns. On the other hand, recent research (e.g., Tso and Forde 2021) suggests that some plant-based items may be highly processed and have a high calorie and sodium count, so it may not necessarily be in the best interests of fast food companies to disclose detailed nutritional information about their plant-based menu items.

Notwithstanding such concerns, a move towards a substantial increase in their plant-based menus could provide a major challenge to the major fast food companies and to their traditional offers. The majority of the selected fast food companies based their business models around a focused menu that is either meat or chicken based, while the others have made extensive use of cheese or dairy products. However, if consumers look to reduce animal product intake and increasingly come to demand what they see as healthier plant-based menu choices, coupled with the convenience of the fast food companies’ offer, this could be seen to challenge the fast food companies’ animal products-based business models. As

such, the leading fast food companies might be seen to have a vested interest in maintaining the main focus of their menu offers around animal-based menu items, rather than expanding their plant-based items more fully.

At the same time, there may also be countervailing issues about the mutually reinforcing impact of the growth of plant-based products on both consumers and fast food companies. On the one hand, if the taste and flavour of an albeit limited range of plant-based items on fast food companies' menus appeals to consumers, then such consumers may increasingly be driven to purchase plant-based food products as part of their wider food shopping behaviour. Whether the leading fast food companies will need to broaden their plant-based menus to trigger such a move currently remains to be seen. On the other hand, in introducing plant-based menu items, the fast food companies will monitor their sales impact closely and, if their monitoring and evaluation research shows that the initial introductions have generated positive responses from consumers, they may then look to consider the introduction of further additions to their plant-based menus, which may in turn lead to revisions to their conventional business models.

More generally, the widespread adoption of plant-based diets is seen to be an important element in the transition to a more sustainable future. While the food people consume at, or from, fast food outlets, is normally only a relatively small proportion of their total food intake, Bloomberg Intelligence (2021) emphasised the important role the major fast food companies could play in driving the wider consumption of plant-based foods across society, and thus in contributing to the development of more sustainable food systems, in mainstreaming plant-based diets, and ultimately in helping to secure a more sustainable future. However, two issues might be seen to call such a scenario into question. Firstly, it remains to be seen if any wholesale extension of the major fast food companies' plant-based food range, can, and will, be accommodated within their existing business models. Secondly, the extent to which fast food companies are leading, or simply responding to, consumer concerns about the impacts of meat consumption on human health, animal welfare or more generally on the planet, is far from clear. The increasingly wide constituency of such concerns, might be seen to suggest that looking to the medium-term future, the fast food companies will have a limited, rather than a leading, role, in driving plant-based consumption across society.

While this short paper has a number of limitations, as outlined earlier, the author believes that it contributes to what is currently seen to be a gap in the hospitality literature, and that it can provide a platform for future research. More specifically, the role of plant-based food in the fast food sector offers a wide variety of potential research agendas. At the corporate level, for example, there may be opportunities to examine the leading fast food companies' strategic thinking in determining the nature, and the extent, of their plant-based menus, how these companies develop, and market test, their plant-based items, and how they accommodate them into their existing business models. At the operational level, researchers may want to explore how employee training programmes are designed and developed to help staff to promote plant-based items to customers, and to evaluate the success of such programmes. At the customer level, market research could focus on if, and how, the fast food companies' advertising and promotional

programmes influence buying behaviour, and if such programmes are successful in attracting new groups of consumers.

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COVID-19: Reshaping Medical Tourism through Artificial Intelligence (AI) and Robotics

By Viana Hassan & Georges Bellos‡*

The tourism and travel sector is a large and thriving industry, with almost 5 billion international tourist arrivals recorded in 2019, with an annual growth of 4% on the previous year. Yet it suffered a major downturn, globally due to Covid 19. Since the concept of healthcare has existed, humans have been willing to travel to access it. From the spas of the ancient Sumerians, Greeks, and Romans, to the supposed curative properties of alpine and seaside health resorts in early modern Europe, the idea of traveling long distances for health reasons, and marketing destinations for that purpose, is certainly nothing new. However, lately, medical tourism has been growing due to the low-cost treatment, Specialization of medical agencies, hospitals, and medical professionals in the host countries. This type of tourism was valued at USD 16.761 million in 2018, and it is expected to reach USD 27,247.6 million by 2024. However, the appearance of COVID 19 has completely changed the tourism sector, where a loss of USD 910 billion to USD 1.2 trillion from export revenues from tourism was reported. Moreover, the different types of Tourism and travel industry are taking advantage of Artificial intelligence (AI) in order to perform a variety of administrative and customer service tasks. For medical tourism the development of these technologies (AI, robotic, and so on) play a key role in supporting the medical agencies in connecting physicians and prospective medical tourists. In addition to make it more feasible and credible option for patients, respond to questions and provide valuable information to customers, and allows to reduce the time would be impossible for humans. Furthermore, international remote surgeries will allow various clinical centers to pool their expertise and offer remote surgeries from a central operating theatre that is convenient to access for patients and persuade patients to invest in the local economy.

Keywords: *Medical Tourism, COVID-19, AI, Robotics.*

Introduction

Based on the 2020 UN World Tourism Organization statistics (UNWTO), it is needed to conduct research on medical tourism packages, and what kinds of consumers are attracted in buying such packages following and how the industry may be changing from pre COVID to post COVID times (see: Darpy & Volle, 2007; Hassan, 2015, Hassan & Noaman, 2017, Jabbour, 2018; Melkonian, 2019; Research and Markets, 2020; UNWTO, 2020a, 2020b). Lately, one needs to understand the dynamics of this sector, and what motivates people to purchase or invest in these packages especially according to the technological advances host

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countries bring to improving the proposed advertised services (Maslow, 1943; Herzberg et al., 1959; Cohen, 1972; Plog, 1994; McIntosh et al., 1995; Griffith, & Albanese, 1996; Swarbrooke, & Horner, 1999; Woodside, & King 2001; Schiffman & Kanuk, 2010; Lunt et al., 2020; Gopalan et al., 2021). This is namely with introducing AI technologies in the typical medical tourism services, as AI is said to improve the quality and efficacy of the treatments (see: Liu et al. 2019). This is why the main aim of this study is to gather information on COVID 19 and its impact on the medical tourism sector, the importance of AI and Robotics in reshaping medical tourism and how it will facilitate the procedure for medical tourists (OMT, 2019; UNWTO, 2020a, 2020b).

Hypotheses: Our hypotheses are as follows:

H0: No relationship between AI and robotics and medical tourism

H1: Positive relationship between AI and robotics and medical tourism

H2: Negative relationship between AI and robotics and medical tourism

Literature Review

Medical Tourism

Medical tourism is defined as the process of traveling outside the country of residence for the purpose of receiving medical care. It is developing rapidly and is becoming a global trend industry that generates billions of dollars, and is a very small niche in terms of the tourism sector (see: Ghassemi et al., 2020).

Besides, this sector is a market of hundreds of hotels, hospitals, clinics and agencies all seeking to make money and the market is growing at a rate of 15-25%. According to international health travel data provider Patients Beyond Borders, the global medical tourism market is worth between \$65bn and \$87.5bn and, medical procedures range from cosmetic surgery and dentistry to cardiovascular procedures and experimental cancer treatments (Hassan, 2015, Hassan & Noaman, 2017). So, government health and tourism ministries around the world are increasingly focusing on their attempts to get (or enlarge) their slice of this lucrative pie (Hassan & Noaman, 2017, Labonté et al., 2018).

Despite the tremendous growth in interest in medical tourism over the past decade, there is no standard procedure for measuring the pivotal factors of medical tourism destinations (Subasinghe et al., 2020). Medical tourism is a growing global phenomenon that is highly dependent on innovation and knowledge management (Subasinghe et al., 2020). Being both innovative and systematic in medical tourism requires enrichment of thought in knowledge management in hospitals.

Interest in medical tourism is growing rapidly and medical tourists have many alternative destinations for treatment, as some hospitals offering low cost and high quality services are more likely to compete in this market, whether in Lebanon or in the Middle East (see: <https://www.lorientlejour.com>). On the other hand,

providing such time-consuming, cost consuming, quality and other services taking into account knowledge management areas is a complicated task for general and functional managers of hospitals. According to statistics reported by the literature (Ghassemi et al., 2020), there are more than 30 countries with hundreds of hospitals and clinics around the world providing services to medical tourists. This information indicates the importance of being systematic and innovative in hospital management (see: <https://www.lorientlejour.com>) to attract as many medical tourists as possible. Recently, medical tourism has gained attention as a serious topic to consider. This industry is growing in Asia every year, and many countries compete to attract more medical tourists by offering low cost services (Ghassemi et al., 2020). Many countries and companies are involved in medical tourism, but this type of tourism does not show any precise fundamental indicators. Iran is one of the suitable destinations in the Middle East for medical tourists as it offers both high quality hospital attractions and healthcare services (see: <https://www.lorientlejour.com>). This is also taking into account the World Health Organization (WHO) guidelines in terms of current sanitation and pandemic restriction policies that must be included in tourism destination strategies. Other international tourism regulation institution guidelines must be taken in to account as well, especially during the current COVID endemic phase.

In many studies of medical tourism, the emphasis is on time, cost, quality and innovation, (Ghassemi et al., 2020), but there are no procedures or metrics to measure them. One study (Ghassemi et al., 2020) proposed cost and quality as factors in medical tourism, but the main concern is how to standardize international hospitals in this area. Besides the main objectives of the study, the novelty of the current study is commendable in different ways. For the first time in the literature, by applying "innovation based on knowledge management" elements proposed following fairly well known research (Ghassemi et al., 2020) that we will examine if it is an orientation on time management, costs and quality (TIME, COST and QUAL) in innovation processes increase the innovation speed (IS) and operational performance (OP).

Sadly, in 2020, COVID-19 spread around the world (see: <https://www.un.org>). The United Nations World Tourism Organization (UNWTO, 2020a, 2020b) has estimated that the sector globally has registered a further 60% to 80% decline by the end of 2020, calling it "the worst crisis than the tourism industry, has faced internationally" (see: <https://www.unwto.org>). Based on the results, in order to provide new products and services in the pandemic and post-pandemic era, it is fundamental to take into account the factors related to time, cost and quality and to improve performance operational. This problem had recently been investigated (see: <https://www.cairn.info>). The researcher illustrated how the growing number of COVID-19 infections negatively affected the planning and strategies of all industries, including that of In-Vitro Fertilization, or IVF (see: <https://www.revmed.ch>). There is almost no open international border and the market share is expected to decline until 2021, and possibly more in 2022 because patients avoid unnecessary travel as per recent UNWTO statistics (UNWTO, 2020a, 2020b). Thus, the future of this industry promises a rather uncertain forecast for the next few years (see: <https://www.unwto.org>).

IOT and Medical Tourism

IOT is conquering every aspect of human life and work environment. This is no exception to the healthcare industry. In fact, the term of Internet of Medical Things (IOMT) was highlighted by the Department of Health, Abu Dhabi (2020) during the 12th annual World Medical Tourism & Global Healthcare Congress in 2019. The wearable and sensors that form parts of IOT are indicated to be beneficial to healthcare professionals are gaining effective benefits (Junata & Tong, 2018). The use of fitness-tracking bands, smart watches and smart textile can easily collect data on patients' health conditions and connect with the healthcare professionals in other parts of the world. While these technological devices may apply to any individuals, the usage is prominent for health tourists who may opt to have follow-up with their doctors in another country remotely, as data can be transmitted to them on real-time basis (Psiha & Vlamos, 2017).

Trust is a key issue in medical tourism – while some patients may be swayed by the possibility of lower costs or an advanced treatment alone, for the most part it is vital that travelling patients have confidence that the quality of care they receive won't be second-rate (ex. Hassan, 2015, Hassan & Noaman, 2017). This is why accreditation that global healthcare facilities match up to the best health systems in the world – primarily through the Joint Commission International standard – plays a central role in the sector. The sharing of patients' electronic health records (EHRs) with remote physicians, another way of improving patient confidence, is also a core feature of many travel agencies that specialize in medical tourism.

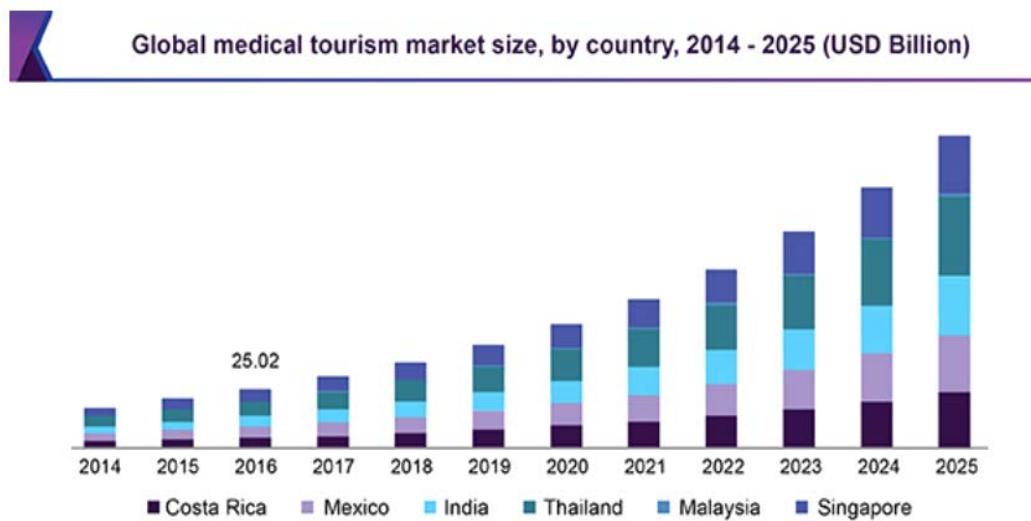
The data from the sensor was then transmitted via IOT sensor platform, to a dedicated android app developed on a Google Nexus 5X smart phone. However, the development is yet to be compatible with smart phone options. An example of such technology usage in health care is the cloud-based wearable IOT sensor systems that measure asthma patients' exposure to aldehydes, in real-life settings (Li et al., 2019). The recent 5G medical technology development further enhances the patterns of production and consumption of health tourism services, such as smart wearable (e.g. clothes that measure heart rate, blood pressure, body temperature, skin moisture, etc.) and active device location tracking (Psiha & Vlamos, 2017). Such development is highly applicable and useful for health tourism, as it allows continuous communication and data updates through cloud computing between the health tourists (at home country) and the healthcare professionals (at health tourism destination) as Hassan (2015) Hassan & Noaman (2017) discusses, in Lebanon for the case before the Pandemic, and before the economic crunch of 2019.

Next, the virtual rehabilitation application will also be benefiting the health tourism industry. It is a system that integrates wearable sensors and records range of motion. The data are analyzed for the therapists to guide the patients in real time via a mobile device (e.g. tablet, smart phone) as Li et al (2013) discuss. The National University of Singapore has launched an IOT-based rehabilitation program for stroke patients in 2016 (UNWTO, 2020a, 2020b). However, there are very few studies on the adoption rate of these innovations among local

communities and health tourists, seeing Singapore as among the top health tourism destinations globally (UNWTO, 2020a, 2020b). In Lebanon, we refer to Hassan & Noaman (2017).

Artificial intelligence (AI) puts consumers in control of health and well-being and also increases the ability for healthcare professionals to better understand the day-to-day patterns and needs of the people they care for, and with that understanding they are able to provide better feedback, guidance and support for staying healthy (cf. Ghassemi et al., 2020, Horne et al., 2020). This is important, as AI seems to be the future of the industry. Yet, other rehabilitation technologies include robotics (e.g. Mann, 2013; Cleveland Clinic Abu Dhabi implemented robotic surgery since 2017 Carlson & Ehrlich, 2005) and assistive technology (AT). In fact, AT plays an intermediary role where it enables disabled individuals (e.g. severe paralysis) to transmit their messages and/or intentions to other devices (e.g. computers) within their surrounding environment (Ghovanloo & Huo, 2014). These technologies further upscale the offerings and competitiveness of health tourism destinations to lure health tourists as seemed to have been discussed in the World Economic Forum (2020a) summit. Figure 1, below, shows the Global 2014 medical tourism market size in billions of USD as discussed by many experts including Hassan (2015).

Despite AI has existed sometimes back, the application of it in the healthcare industry is still at the infant stage (see: Hassan & Noaman, 2017; Liu et al. 2019). The behavioral and mental healthcare fields use AI to learn, understand and reason to make better clinical decisions; diagnostics, testing and patient care management. Besides, AI technologies and techniques also enhance patients' lives via advance self-care tools (Wong & Hazley, 2020). For example, the interactive mobile health applications study the patterns and preferences of users. By doing so, the AI may improve public health through the detection of health risks and recommending interventions. The use of AI enables the interactions between health professionals and care seekers at a distant, providing necessary treatment recommendations (Luxton, 2016), a very useful communication and interaction tool between health tourists and the healthcare professionals overseas. In stepping up Abu Dhabi as a unique health tourism destination, the United Arab Emirates (UAE) has taken AI seriously in regulating the development of its healthcare industry by introducing the first AI policy, tabling out the UAE Artificial Intelligence Strategy and announcing it world's first Minister of State for Artificial Intelligence (see: Luxton, 2016). Governments also play a role in Medical tourism, as seen in the case of Guatemala (Labonté et al., 2018).

Figure 1. Global Medical Tourism Market Size (in Billion USD)

Artificial Intelligence, Robotics, and Medical Tourism

IR 4.0 Technologies

The integration of IR 4.0 technologies in general healthcare industry will benefit health tourism development as it will revolutionize patients' travel options and patterns, particularly for the initial checking and later follow-up stages. Such benefit becomes more significant among the elderlies and those who may have mobility issue to travel. Digitalized and connected health care saw increased investment over the past few years and the widespread use of technology-enabled health care further making the idea of "Smart Hospital" a reality (Frost & Sullivan, 2017). The call for the use of block chain technology to enhance the safety and effective use of health data within the health tourism industry gained attention in the recent years (Iryo.network, 2018). The use of technology may free up face-to-face appointments for health tourists, particularly for follow-up sessions after returning to their home country, and thus generate more convenient and cost-effective experience (Wong & Hazley, 2020).

Healthcare know-how and technologies are available in many parts of the world. The availability of IR 4.0 technologies also enhances expert mobility (e.g. doctors, nurses, professors and care takers) virtually and further enhances the readiness of developing nations to receive its health tourists with an open hand (Wong & Hazley, 2020). Perhaps, with the adoption of IR 4.0 technologies among the health tourism facilities, health tourists may not necessarily require physical movement elsewhere anymore in seeking and receiving health services, such as simple health checks or health advice (see: Seyitoğlu & Ivanov, 2021). So, the recent corona virus pandemic that puts global travelling almost to a halt is a good example of why the future of health tourism should evolve through the technology advancement, specifically the IR 4.0 technologies as available currently. Health care is no longer just about local accessibility but cross-national borders, be it physically or virtually (Wong & Hazley, 2020).

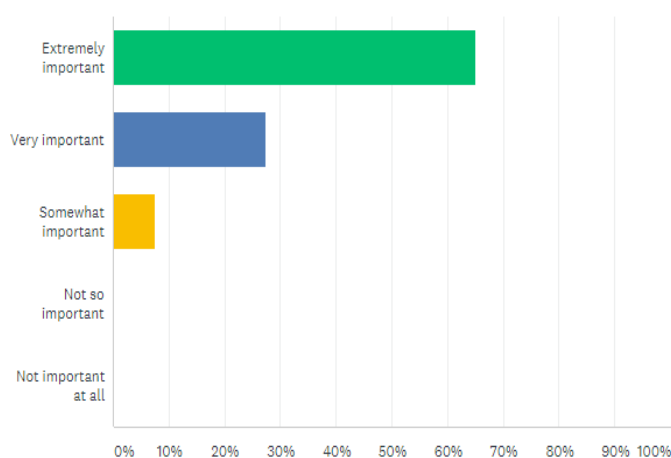
Summary

Before we move to the next section, it is important consider the following points, as Figure 2 shows. Bellos (2021) presets that improved access to healthcare services do encourage a healthy lifestyle and this indeed agrees with the fact that an increasing number of people seek more and more for medical, health, and wellness tourism packages, so indeed the trend is clearly marked toward and increased demand in such tourism packages.

Figure 2. *The Importance of Medical Tourism (Bellos, 2021).*

Improved access to basic health care services, and encouraging a healthy lifestyle

Answered: 40 Skipped: 0



Methodology

Several questions that were raised from the literature review were adapted as below:

1. What are the reasons behind the growth of medical sectors?
2. Do AI and Robotics play a role in reviving medical tourism during COVID-19?
3. What is the role of AI in transforming the industry and making it more feasible for patients?
4. Does COVID 19 change the future of medical tourism by creating a new niche Market through AI and Robotics?

To respond to the above research questions, the research relies on different sources (articles, papers, reports, statistics for UNWTO, WHO, and so on) together with a complex mixed research methodology (qualitative and quantitative). These comprises of an in-depth interview disseminated to expert Medical Tourism agents, and a qualitative semi structured survey distributed to medical experts from

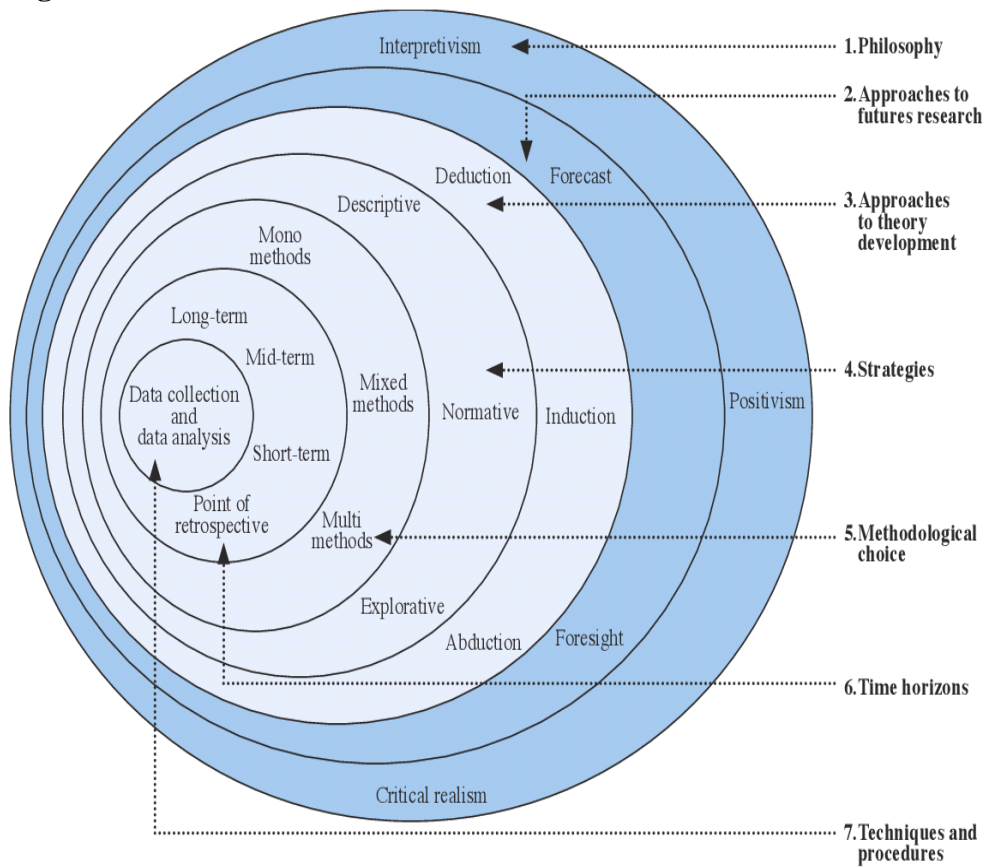
different fields (Robotics experts, plastic surgeons, dentists, and so on), but more specifically to specialize in Robotic surgery. On the other hand, this research's quantitative component will be based on structured questionnaires to be distributed to a large sample, including, but not limited to tourists, patients, engineers, and medical centers (See: UNWTO 2020a, 2020b). Figure 3 shows the procedure used to build our research design.

However, the opinion of medical tourism agent directors will enable the researchers to see if AI has helped to revive medical tourism and medical tourists to be followed by their doctors and if the new type of medical tourism such as Robotics and Telehealth will continue growing after COVID 19 (Wong & Hazley, 2020). Additionally, also discussed will be the fact of whether AI applications have been beneficial as well (see: West & Allen, 2018).

Since the research draws on a variety of secondary data sources (publications, scholarly researches, papers, reports, UNWTO, WHO statistics, and so on) it will necessitate a sound research design, which can be summarized in Figure 3. Saunders et al. (2019) helps us review the most suitable research design for our study as both expert interviews and structured surveys will be used for our research strategy. For this purpose, we will be relying on the mixed research approach to answer the aforementioned research questions, necessitating both qualitative and quantitative means (see: UNWTO 2020a, 2020b). We used the complex mixed methods, since we have 2 qualitative surveys (including expert interviews and questionnaire) and a quantitative one (Saunders et al., 2019). We suspect our methods to rely on critical realism, as we want to question the reality we see.

These include in-depth interviews with Medical Tourism agents and physicians from many areas (plastic surgeons, dentists, etc.) that specialize in Robotics surgery. The quantitative component of this study, on the other hand, will be based on surveys and questionnaires that will be provided to tourists, patients, engineers, medical centers, and others. Thus, the UNWTO (2020a, 2020b) statistics will guide us as one of the main sources for secondary data, along with data collected from previous studies to be used as supporting evidence once we triangulate the data together (see: Figure 3).

Thus, we will use *critical realism*, *abductive approaches*, and *surveying* as a way to collect data while using *sequential exploratory mixed methods* as qualitative and quantitative methods are used one after the other, while adopting action research as data collection strategy (Brynman, 2012). Saunders et al (2019) suggest we use this method because it is suitable for researches encompassing in-depth interviews disseminated to experts in the field, and namely those specializing in Robotics surgery.

Figure 3. Saunders' Research Onion

Yet, the opinion of medical tourism agent directors will enable the researchers to see *if the AI helped to revive medical tourism* and also *if medical tourists to be followed by their doctors* and *if the new type of medical tourism such as Robotics and Telehealth will continue growing after COVID 19*. This research method was based on Brynman (2012). On the other hand, this research's quantitative component will be based on both surveys and questionnaires to be distributed to tourists, patients, engineers, medical centers and much more. Furthermore, we will also analyze whether or not *AI applications have been beneficial in these times as well* (Hassan & Noaman, 2017).

During this research an in-depth examination of the role of AI and robotics in reshaping and revitalizing medical tourism during and after COVID-19 will be provided (Orîndaru et al., 2021). Similarly, how this sector will change as a result of placing a high value on AI in order for patients to avoid waiting lists will also be discussed. This will be done in order to help embed a culture of prevention within the community so as for people to stay healthy and reduce their need for doctors, which will be argued (Smith et al., 2013).

COVID19 had a disastrous impact on the medical tourism business, according to the major findings given in recent researches conducted by the UNWTO, due to travel restrictions and visa constraints (see: UNWTO, 2020a,b). Besides *how AI and Robotics are becoming an important part of the healthcare sector globally in not only treating diseases or carrying out intricate procedures but also supporting*

well-being, prevention, and early intervention are part of our research inquiries (Davenport & Kalakota, 2019). This also needs to be considered while responding to our research questions. Therefore, the five research questions are presented below:

- RQ1: Does AI reshape the future of Medical Tourism?
 RQ2: How does COVID-19 changes the Medical Tourism industry?
 RQ3: What are the possible modifications to help the medical tourism sector to revive and continue its growth through AI and Robotics?
 RQ4: Will Remote surgeries and Robotics have benefits for medical tourists?
 RQ5: Do Robotics and AI play a role in Medical tourism?

These queries necessitate the selection of *mixed methods*, since we used *interviews* and *surveys*. This is why the philosophy and approaches used coincide with the correct selection of data collection methods, best selected to effectively respond to the above research queries. The research design has been well considered since Cronbach Alpha values were estimated at 0.86. This was confirmed in Table 1, as the survey was found to be well correlated, upon completion. Overall, the survey is both reliable and valid, since triangulation with the other data was carried out. The structured survey ran till the end of July 2021, and targeting various people, including but not limited to students, nurses, various medical staff and professionals, which were randomly targeted, giving equal chances for the subjects to appear in the study.

Table 1. Cronbach Alpha Value

Cronbach's Alpha	0.861954705
Split-Half (odd-even) Correlation	0.786528583
Split-Half with Spearman-Brown Adjustment	0.880510494
Mean for Test	282.05%
Standard Deviation for Test	1.507852949
KR21 (use only 0 and 1 to enter data for this)	0.224946807
KR20 (use only 0 and 1 to enter data for this)	0.235354538

Findings

The current research paper demonstrated a thorough investigation of *the significance of AI and Robotics in reshaping and reviving the field of medical tourism during and after COVID-19 pandemic, and how this sector will change by giving much importance to AI*. Preliminary findings from expert survey where five specialists have been approached worldwide to respond to a qualitative research survey pertaining to the above research aim. Among part of the study objectives were to analyze if the patients will avoid the waiting list, besides, to help embed a culture of prevention within the community for people to stay healthy and reduce

their need for physicians, which in turn reduces capacity and financial burdens on health systems (Hassan, 2015, Hassan & Noaman, 2017).

The main findings presented in the paper have shown that COVID19 had a devastating impact on the medical tourism sector due to the restriction of travel and limitations of giving visas, besides how AI and Robotics are becoming an important part of the healthcare sector globally in not only treating diseases or carrying out intricate procedures but also supporting well-being, prevention, and early intervention is what this study is investigating (Hassan & Noaman, 2017; Huang et al., 2020; Rogoff, 2020).

Reviving Medical Tourism through AI and Robotics

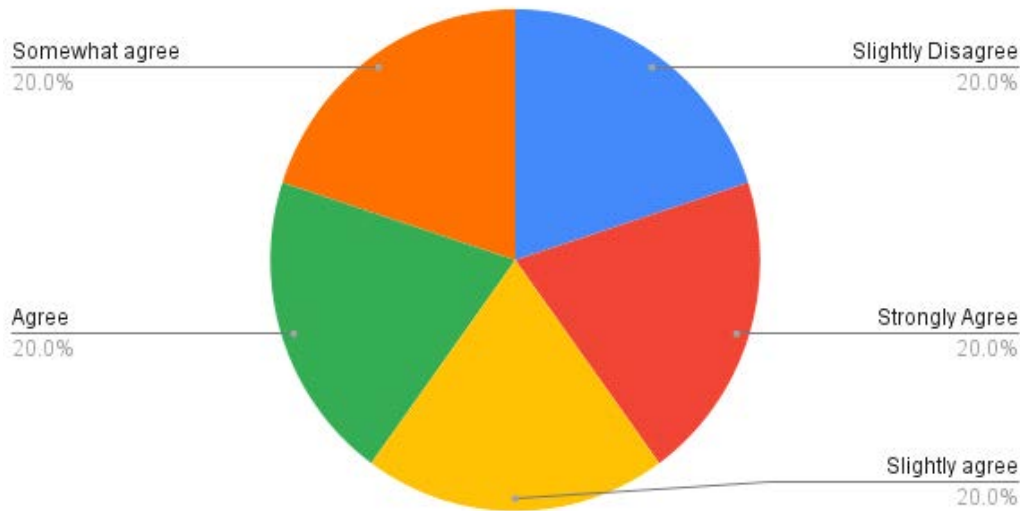
Our expert survey demonstrated that all respondents somehow collectively agree to the question with reservations, while in terms of the expert responses, of whom three are robotics experts, among others, an orthopedic specialist and a dentist. In terms of dentistry, it is the dental laboratory component that is considered to be automated with the dental CAD CAM machines, while the profession still remains with contact. Note the 1st expert responded to the qualitative (semi structured) survey on July 1st 2021, whilst the last one responded on July 22nd, so the non-numerical study took three weeks to complete effectively.

Let's discuss the finding in terms of our main research theme, which revolved around investigating whether or not *AI and Robotics play a role in reviving medical tourism during COVID-19* (Van et al., 2020). Thus, from interpreting our findings, we can say that both the first and third experts show neutral arguments pertaining to the above statement, while the second, while the second, fourth and fifth experts agree. The real results are shown in Figure 4, and in we interpret it in a simplified way, 60% of the experts agree, while 40% are neutral. But, if we take the results from the findings per se, it is 60% agreeing, 20% slightly agreeing and 20% slightly disagreeing. Therefore, and to avoid confusion, we go with Figure 4, and could interpret that 80% agree while 20% disagree.

The results of the interview questions pertaining to collecting the opinion of the medical tourism agency directors we sought to reach out to enabled us to see whether or not AI has helped to revive medical tourism and medical tourists to be followed by their doctors, and if the new type of medical tourism such as Robotics and Telehealth will continue growing after COVID 19. The answers of this one expert who did get back to us allowed us to present the following findings. Thus, it was important to contact a medical travel agency in order to understand the role of travel agencies in promoting Medical Tourism, so through the interview we found that the agency is focusing mainly on Cosmetic surgery, as a package which it includes the accommodation, transportation, follow up, consultation. Other than this, the interview, being more of a discussion was summarized in the paragraph below pertaining to the exact roles of travel agencies in promoting medical tourism.

Figure 4. Detailed Responses from the Five Experts

Do AI and Robotics play a role in reviving medical tourism during COVID-19?



Medical Travel Agency

Adding to it, the travel agency we interviewed promote two main destinations: Turkey (for cosmetic and hair transplant interventions) and Croatia. So basically it covers the Near East and Eastern Europe as preferred destinations for medical tourism. So, in terms of what the interviewee addressed to us, what we noticed while conducting the research that Iran and several destinations in the Maghreb were also attractive as well for medical tourism and for various interventions going from simple medical treatments to complex surgeries, even Lebanon for In Vitro fertilization (see: Johnston et al., 2010; Samadbeik et al., 2017; Béland & Zarzeczny, 2018; Ghassemi et al., 2020; Lunt, et al., 2020).

The business was doing very well until the COVID-19 pandemic struck, as it affected the entire process since they couldn't manage for arranging the visa procedure for its clients. At the same time, with the successive lockdown and the closed borders, things were difficult for regular trips, but it did manage to get permissions for emergency cases. The agency expectation of the industry is that the business will be growing very fast again, after the drop in sales of medical tourism packages during the pandemic.

The reverse was observed after people were getting vaccinated, and most of the agency's customers are currently asking for nature based, wellness and other forms of slow and sustainable tourism, as associated to medical tourism packages, since healing tourism such as yoga, retreats, spas and so on are other packages the agency's clients demanded as well as the cosmetic surgery packages.

For the question if the robotic surgery will replace the traditional medical tourism; the travel agent we asked, believed that though that it will take time as the people prefer the traditional one as they will feel more secure to meet a physical doctor doing a traditional intervention, for sure the future of Medical tourism will

change and the technologies already are showing increasing trends that it will reshape the medical tourism sector.

Pilot Study and Quantitative Survey Results

Whilst still conducting the interviews, on July 14th 2021, a pilot study was carried out as part of the Quantitative data collection strategy for our research. A total of 10 people were approached for testing if the survey was clear and understood: Some minor changes were administered on the survey, based on some of the respondent's feedbacks. The interpretation of this survey follows sequentially that of the expert qualitative surveys and interviews. As the pilot study was fairly well received, the survey turned out to be fairly well correlated as well.

Question 1 (*Where are you based?*) was majority responded by over 85% subjects to be based in the Middle East (yet, as the GCC countries are part of the Middle East, we can consider that the 75% responses come from people based in the Near East, or the Levantine coast, to mean geographically Lebanon, and 8% of the responses to be from the GCC). In terms of responses, 8% of the responses come from Europe, while the remaining responses come from other areas. If we compare with the expert survey, 40% were based in the Middle East, and 40% in the GCC, and the remaining 20% in USA, showing a slightly different sample, as the survey presented a randomly targeted sample of our population unlike the expert survey that was purposive. Question 2 (*What is your average age level?*) tells us that most of our respondents are aged between 20 to 30 years old (70%), meaning that most of our sampled population was composed of youths (Jabbour, 2018; Melkonian, 2019). In equal percentages, we noticed that there are respondents between 40 to 50 years old, and fewer than 20 years old (15% each, or totaling 30% for both age ranges).

Questions 3 to 10 effectively target the questions pertaining to *whether or not Robotics and AI play a role in Medical tourism* (Samala et al., 2021). So, in terms of Question 3 (*Have you made plans for the COVID-19 outbreak?*), 23% of the respondents claimed they had made plans, 31% claimed they were unsure, while, the rest said no, that they had made no plans, which total around 46%. This makes sense, as most people anyways cannot make plans due to the pandemic. While, with Question 4 (*Your practice was affected by COVID-19?*) we see that all of our respondents were affected by Covid 19. Yet, pertaining to Question 5 (*Are you Looking for more guidance and resources from others in the industry?*) 54% of the respondents said yes, while in equal proportions, respondents said they were unsure and that they did not need guidance (totaling 46% for both).

Addressing Question 6 (*Will COVID 19 Change the future of Medical Tourism?*) we realize that 77% of the respondents said yes and the remaining 23% were unsure (Bulatovic & Iankova, 2021). However; with Question 7 (*Does AI and Robotics play a role in reviving medical tourism during COVID-19?*), the results seem inverted in comparison to the previous question; with 38% of the respondents agreeing to the question, and 62% of them not being sure (See: Van et al., 2020). While, Question 8 (*Is the role of AI in transforming the industry and making it more feasible for patients?*), which seems to join both of the former

questions in terms of ranges; shows that 54% of the respondents say yes, and that 46% of them are not sure (see: Hassan, 2015, Hassan & Noaman, 2017).

Whereas, Question 9 (*Will Remote surgeries and Robotics have benefits for medical tourists?*), showing the pretty much exactly the same rate of responses could confirm this tendency. Finally, Question 10 (*Will the AI reshape the future of medical tourism?*), which also yields the same results somehow does show this tendency. Both questions show results showing response rates of 63% of the respondents to agree and 37% to think that they have benefits and reshape medical tourism (Bellos, 2021).

In other words, the last three questions were agreed by 54% of the subjects and, that the remaining 46% of them were not sure (see: Fig. 5). In terms of Cronbach Alpha, our survey is well correlated with a value of 0.86 (Table 1). In terms of responding to our research questions, a pattern is seen whereby indeed, practices, even in the medical and tourism sectors, were affected by the Pandemic. While, overall, the responses agree to the link of Robotics and AI, to be affecting the Medical tourism sector, and confirm a positive relationship, as overall, 59% of the respondents agree, while, 35% of them are unsure, and the remaining 12% disagree (Hwang et al., 2018). So, yes we do see a link in our variables here, and we can safely confirm H1, and reject H0 and H2.

Based on Figure 5 Generally, our preliminary survey results point out to the following, as close to 56% of the survey subjects agree, to the statement that there is a link with AI and robotics and Medical tourism, while 33% are neutral and 11% disagree, based on our bulk survey results.

Discussion

Based on the research findings, 9 research questions were addressed through the surveys and interviews. Bellos (2021) confirmed in his research that the increased demands for improved basic healthcare services and encouraging healthier lifestyles do count for reasons that people may want to consider getting wellness, health or medical tourism packages. The majority of the subjects that were surveyed said that the pandemic has altered the sector, and even consumption behavior at some extent was influenced by the endemic. To date, more people consider investing in such packages, as motivations for seeking increased and improved lifestyles as well as desiring to have better access to health facilities.

As there are increasing demands for such packages, people are basically willing to consider investing in those process and seek better quality services, so the industry ought to consider providing attractive deals, though advertising and communicating these products based on consumer demand. Therefore, and based on our findings, there is a link with Robotics, and AI on Medical Tourism, since most respondents confirmed this.

What are the reasons behind the growth of medical tourism sector? Well as Bellos (2021) pointed out, an increase in demand in health tourism or in lifestyles will motivate more purchases of such tourism packages. This coupled with seeking cheaper medical treatment in a foreign country versus the same treatment back home, which is more expensive even without the same

Do AI and Robotics play a role in reviving medical tourism during COVID-19? Yes they do, since the experts we interviewed and the randomly targeted survey subjects believe that distance surgeries and through AI and robotics could help

What is the role of AI in transforming the industry and making it more feasible for patients?

Does COVID 19 change the future of medical tourism by creating a new niche Market through AI and Robotics?

Does AI reshape the future of Medical Tourism?

How does COVID-19 change the Medical Tourism industry?

What are the possible modifications to help the medical tourism sector to revive and continue its growth through AI and Robotics?

Will Remote surgeries and Robotics have benefits for medical tourists?

Do Robotics and AI play a role in improving Medical tourism?

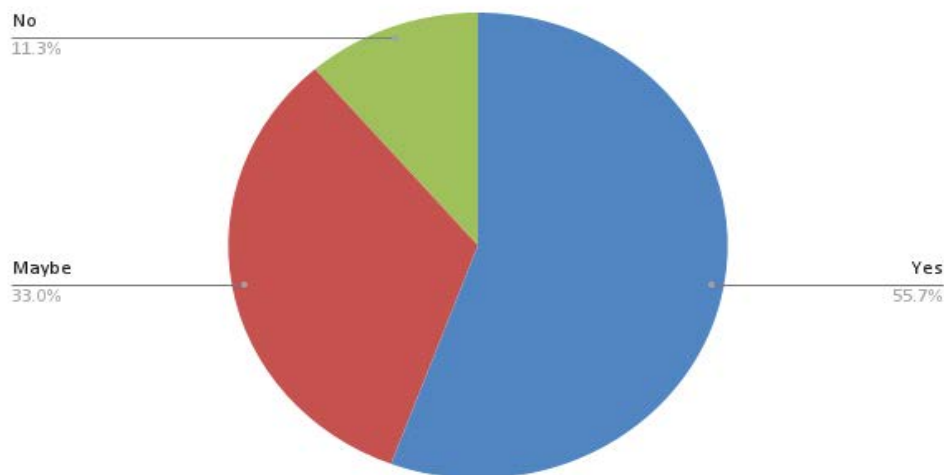
Summary

We found out important findings pertaining to the reasons behind the growth of medical tourism sector as more people in Lebanon (locals and visitors) sought to consider purchasing medical tourism packages especially in times of COVID, although the WHO travel restrictions and the UNWTO guidelines controlled the industry through strict regulations with mass tourism as such activities ceased or dramatically decreased during the successive lockdown periods. Experts in the domain indeed demonstrated that AI and Robotics play a role in reviving medical tourism during COVID-19, for many reasons as at times specialists/doctors were not present during interventions but communicated with colleagues or other surgeons using ICT tools. In terms of robotics, many surgeries became less invasive and made easier through such automated techniques.

Among the various roles of AI in transforming the industry, and making it more feasible for patients, is the ease of conducting complex procedures, and decreasing recovery periods at times while being cost beneficial for patients, among other advantages. Indeed, the COVID 19 has changed the future of medical tourism by creating a new niche Market through AI and Robotics, as mainly pre Covid, such systems were already been in use by the sector. While, the industry took advantage of the increased demand for medical tourism packages, tied to wellness and other health tourism needs patients be voiced as a result for the COVID pandemic.

Figure 5. Bulk Response Results for the Quantitative Survey

There is a link with Robotics, and AI on Medical Tourism



As a result, AI tools have reshaped the future of Medical Tourism partly due to the COVID-19 induced changes on the sector, and partly for other issues as well. This also has compelled changes in consumption behavior, profiling and demand, and whereby new tourism specific marketing strategies need to be considered (Frochot, & Legohérel, 2007; Dechavanne, 2014; Sheth, 2020). Although Remote surgeries and Robotics may have benefits for medical tourists, in some cases, this could be a weakness or a threat, in terms of the loss of market share.

Conclusion

To conclude, our research does hint out that medical tourism will be enhanced in the near future since patients seeking such types of tourism desire to look for treatments at a cheaper cost in countries providing a short stay for them whilst they recover from any surgery or medical intervention (Lunt et al., 2020; Gopalan et al., 2021). This research, now coming to a close, saw a positive link between AI and robotics in reshaping Medical tourism, and thus accepting H1.

In this regard, the authors confirm from research that medical tourism in the Middle East, and especially in Lebanon is an important sector in the tourism activities these countries rely on. If one includes the countries in the entire MENA region, it is noticed that several nations, like Tunisia, Morocco, Turkey and Iran have consequent activities generating from medical Tourism (Ghassemi et al., 2020). Algeria may be considered too (Harouat, 2011-2012).

The below research question responses will provide further evidence to our study.

So "What are the reasons behind the growth of medical sectors?" was the first question that was posed in the current research. It was noticed that there were many causes for the boom in this type of tourism, in terms of attracting tourists worldwide for benefitting for cheaper treatments, so countries like Turkey,

Lebanon and Iran appear on the map as tourism in these respective countries (of course pre epidemic) were high sources of GDP income (see: Lunt et al., 2020; Gopalan et al., 2021). Besides, in the case of medical tourism, for Lebanon, there are many types of cosmetic surgery products which highly attract worldwide tourists, as well as in-vitro fertilization (IVF).

Several HORECA experts in Lebanon, including Mr Pierre Achkar ascertain that in countries like Lebanon, tourism activities contribute to 20% of its GDP pre pandemic. There are no state intentions to focus on improving this sector, in spite of the urgent needs to valorize this sector and to enhance the activities revolving around medical or wellness or other related tourism activities.

The second question "*Do AI and Robotics play a role in reviving medical tourism during COVID-19?*" indeed was showing a link as both AI and robotic surgery (among other techniques utilizing ICT tools) did improve during the times of COVID 19. While the expert surgeons in one part of the world would assist other resident surgeons in other parts, and was deemed helpful for dealing with specific cases remotely. In our case, expert robotic surgeons, among other specialist in the medical or dental field had mostly agreed to this. However we notified that in the dental domain, CAD CAM machines (robotics) are used in the dental lab phase and not in dentistry itself (see: Gergely, 2020). ICT tools help in other ways the tourism sector, and not just AI. This is namely in terms of attracting touristic locates to potential customers. The authors consider that any other tool using IT and technology can be beneficial, like augmented reality (AR) or virtual reality (VR).

The third question "*what is the role of AI in transforming the industry and Making it more feasible for patients?*" was somehow positively responded for the patients' points of view as well. Why? Because, in some cases, during the early stages of the pandemic, we considered the plane loads of incoming Iranian COVID positive patients as medical tourists, even though this was a political move and not something enhancing tourism, as seems that the Lebanese oligarchy wants the pandemic to propagate. But, in terms of this question, indeed the pandemic having caused changes, caused the professionals in the sector to faces issues with mental health and wellbeing which needed immediately to find solutions (Hachache, 2021).

The fourth question "*Does COVID 19 change the future of medical tourism by creating a new niche Market through AI and Robotics?*" addressing the role of the pandemic indeed seems to have triggered a change, and yes, our findings indeed noticed this change (see: Wong & Hazley, 2020). Although, at this stage, we have seen a modification of how the sector plans to generate revenues; bottom line is that we now consider a change in the tourism market from luxury to wellness and nature based tourism (both included in eco and sustainable tourism), two types that could blend in with post op recovery from surgeries, and together with cultural and domestic tourism, could be included as packages under the umbrella of medical tourism.

The part related to AI and Robotics indeed sees a change and is also addressed in the fifth question "*Does AI reshape the future of Medical Tourism?*" to which the answer is yes. Yet, in terms of the sixth question "*How does COVID-19*

changes the Medical Tourism industry?" we obtained a preliminary response from our research to satisfy our research aims, so further research is suggested in this domain, especially in estimating the impact of the coronavirus endemic on the global recovery of the industry, not expected to fully recover until after 2025 (UNWTO, 2020a, b).

Although the last two questions were well covered in our surveying research design, we also suggest further research in these areas. So, the seventh question "*What are the possible modifications to help the medical tourism sector to revive and continue its growth through AI and Robotics?"* could be responded by having hybrid options whereby surgeons in one place meet up with the others in other places, in which the surgeries or treatments occur. Finally, in terms of the eighth question "*Will Remote surgeries and Robotics have benefits for medical tourists?"* it was found out that both remote surgeries and robotics help in certain cases, in terms of the WHO recommendations to avoid too much contact with treating physicians and patients.

Finally in terms of recommendations, mostly we propose further research in these domains and global efforts to correctly and effectively use medical tourism as a way to improve the activities in all countries, especially Lebanon contingent on tourism for economic growth and development, post pandemic.

A more thorough and in depth analysis is needed, such as a thorough analysis if this question targeting larger sample, hereby targeting customer reactivity and overall satisfaction pertaining to the services provided if they had formerly visited Lebanon for treatment. And If not, why or why not. *In case any barriers are considered in customer purchase decisions, what are the constraints they feel are preventing them from purchasing such packages?*

Throughout the pandemic as worldwide tourism activities were altered as per the WHO imposed travel restrictions and the UNWTO statistics pointing to a near 1 trillion USD global loss of revenues during the pandemic lockdown phases, it becomes important to see what re the future trends in tourism activities I terms of the market demand, especially In medical tourism

As a result, here are some potential reasons why the authors suggest future in depth studies to investigate further this issue, stressing on different modes of inquiry, based on what the future research contexts and scopes will be.

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The Tourism Department of Sultan Qaboos University Undergraduate Program Accreditation by AQAS: The Journey and What it Entails

*By Masooma Al-Balushi**

The Tourism Department of Sultan Qaboos University (SQU) undergraduate program (Study Plan 2010) was accredited by the Agency for Quality Assurance through Accreditation of Study Programs (AQAS) in August 2016 for five years. The accreditation was conditional. Within a period of nine months, an action plan to fulfill the condition had to be established and reported to AQAS. How was the accreditation mission accomplished? This study aims to demonstrate the Tourism Department journey to fulfill the AQAS accreditation certification requirements and condition

Keywords: *AQAS, Education, Hospitality, Program Accreditation, Oman, Quality, Sultan Qaboos University, Tourism.*

Introduction

The tourism undergraduate program (Study Plan 2010) offered by Sultan Qaboos University (Sultanate of Oman) was accredited according to the Agency for Quality Assurance through Accreditation of Study Programs (AQAS) criteria for program accreditation in August 2016 for five years until September 30th, 2021.

AQAS is an independent non-profit organization for accreditation of higher education institutions and programs in Germany and is a full member of The European Association for Quality Assurance in Higher Education (ENQA) and listed in the European Quality Assurance Register for Higher Education (EQAR). The agency is dedicated to continuous quality improvement and assurance in higher education. AQAS offers program accreditation at all levels and across all disciplines (AQAS, 2021).

The accreditation of the Tourism Department Undergraduate Program (Study Plan 2010) was conditional. One condition was required. Within a period of nine months, the condition had to be resolved, documented, and reported to AQAS no later than May 31st, 2017. The offered responses to the AQAS condition were realistic, achievable, and convincing which led to the decision of granting the Tourism Department Undergraduate Program (Study Plan 2010) the unconditional accreditation privilege for a period of five years until September 30th, 2021. How was the accreditation mission accomplished? This study aims to demonstrate the Tourism Department journey to fulfill the AQAS accreditation certification requirements and condition.

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Achieving an international accreditation by AQAS certifies that the accredited program conforms to the quality standards of the European Higher Education Area (EHEA). Upon successful completion of the procedures, accredited entities receive a certificate as well as report on the quality of the program. The benefits of an international accreditation are summarized in the following (AQAS, 2021):

- An international program accreditation is a quality enhancement tool. External reviews from experts outside the national higher education system provide expertise and guidance.
- An international accreditation increases international acceptance of degrees and foster mobility of students, staff, and research activities.

Structure of the Tourism Undergraduate Program (Study Plan 2010)

The tourism undergraduate program study plan (2010) was composed of 120 credit hours, including seven course categories as follows:

1. University Requirements
2. University Electives
3. College Requirements
4. College Electives
5. Major Requirements
6. Major Electives (6 course levels of the chosen foreign language and 2 Elective Courses)
7. Specialization Requirements

All students registering in the Tourism Department should study the major requirements courses, which include 12 courses (34 credit hours). Students study these courses during their first four semesters in the department. Students would then proceed towards the specialization requirements courses, which includes 12 courses (36 credit hours) in one of the department specializations (Tourism Management - Hospitality Management) for 4 semesters.

A comprehensive study of the tourism undergraduate study plan (2010) indicated that the 12 “Specialization Requirements” courses (See Table 1) based on the courses files analysis could be classified as “Operational” and/or “Managerial” courses (Atef, 2018):

Table 1. *Specialization Requirements Courses Analysis*

Specialization Requirements			
Tourism Management		Hospitality Management	
Tourism Companies and Travel Agencies Operations	O	Hospitality Management	M
Airlines Operations and Management	O&M	Food Production	O
Economics of Tourism	M	Service in Hospitality	O
Event Management	M	Front Office Operations and management	O&M

IT Applications for Tourism	O	IT Applications for Hospitality	O
Tourism Planning and Development	M	Housekeeping Operations and Management	O&M
Managerial Accounting for Tourism	M	Managerial Accounting for Hospitality	M
Tourism Marketing	M	Hospitality Marketing	M
Human Resources Management for Tourism and Hospitality			M
Statistics for Tourism and Hospitality			M
Feasibility Study of Tourism and Hospitality Projects			M
Graduation Project			O&M

Note: O=Operational, M=Managerial, O&M=Operational & Managerial

Adapted from: Atef, 2018

Literature Review

Quality of Education is not easily defined, nonetheless, it could be regarded as the elements that form the inputs, processes and outputs of an educational system and the set of services provided to meet stakeholders' expectations and needs (Cheng and Tam, 1997; Becket and Brookes, 2005). In the same context, it could be defined as the degree to which the expectations and the perceptions of stakeholders tend to perfectly match, in other words, the congruency between perceptions and expectations or exceeding expectations means quality (Parasuraman et al., 1985; Rabbitt and Bergh, 1994; Becket and Brookes, 2008).

Generally speaking, the term quality carries different meanings, for example, a degree of excellence (Peters and Waterman, 1982); the consistent delivery of services and products based on established standards (Rey and Wieland, 1987); fitness for use or purpose (Juran, 1988); and the Fulfilment of an institution's mission and objectives (Harvey and Green, 1993).

Universities follow various paths and apply different methods to assure adherence to the highest institutional and program quality standards. Quality assurance processes in higher education institutions include assessing, monitoring, guaranteeing, maintaining, and improving system processes and outcomes. The ability of an educational institution to assure the sustainable application of a continuous quality improvement process is what differentiates it from other competitors. With this emphasis on quality, accreditation is the most preferred method of quality assurance (Dill et al., 1996; Yorke, 1999; Sripun and Ladkin, 2001; Kohler, 2003; Vlasceanu et al., 2007; Blanco-Ramirez, 2015).

Global trends in higher education such as internationalization, competition, and rankings has added to the necessity of institutional and program accreditation (Ulker and Bakioglu, 2019).

The function of accreditation in higher education is to ensure adherence to quality standards, accountability, transparency, and planning for continuous improvement based on periodic reviews under the guidance of a recognized accrediting organization (Lim, 2001; Brown, 2004; Eaton, 2011; Anderson, 2020; Manimala et al., 2020; Papanikos, 2022).

Accreditation entails a process of self-review and peer-review that focuses on an institution's mission and objectives, evaluating how they are carried out through programs, instructors, graduates, facilities, internationalization and mobility policies, and industry collaborations (Airey et al., 2015), these practices consequently, improve the public confidence in the worth of an institution/program, the value of its degree/certificate, and its ability to live up to its promises (Eaton, 2011).

Accreditation serves many stakeholders: governments, institutional managers, heads of departments, instructors, students, and employers. The reason is that accreditation evaluates the educational quality of an institution/program that prepares graduates to join a specific job or profession (Barnett, 1992; Hail et al., 2019).

The accreditation procedures commonly followed fall within four phases: proof of adherence to standards (self-study report done by applying entity), in site visit by accrediting agency auditors, results and decision of being accredited or not (sometimes the outcomes are published), and periodic reviews to assure conformance to standards. These phases are reflected in the following steps (Allyn, 1966; Atef et al., 2019; Manimala et al., 2020):

1. Expression of interest
2. Preparation of the self-study report
3. Constituting the peer-review team
4. Peer-visit and review
5. Judgement and recommendation
6. Award of accreditation
7. Continuous improvement

The key element of an accrediting organization is that it should be independent from ministries and other stakeholders and have autonomous responsibility for operations (ENQA, 2009).

The accrediting organization and the accredited entity collaborate to set standards that would assure maintenance of educational quality and application of continuous system improvement mechanisms (Eaton, 2015).

Accreditation decisions are time limited. The accreditation status validity is established by the accrediting organization, which through audits and reviews holds the right to renew or suspend the accreditation privilege, based on how well an institution conforms to the established accreditation criteria and quality standards (Vlasceanu et al., 2007).

Methodology

The current paper is a case study of the Tourism Department undergraduate program (Study Plan 2010) accreditation by AQAS.

A case study takes many forms, it could be descriptive, explanatory, and exploratory (Yin, 2013). Case studies do not require any specific data collection

methods but focus on holistic description and explanation (Merriam, 1998). A descriptive case study may take a narrative approach, reflected in a chronological report or told as a story (McDonough and McDonough, 1997; Gustafsson, 2017)

The Tourism Department case study adopts a descriptive explanatory approach. The accreditation journey is described and explained based on:

1. The related literature
The body of academic literature on quality and accreditation was reviewed aiming to stress the functions, aims, and benefits of going through the accreditation journey and seeking an international program accreditation certification.
2. The related Tourism Department documents and AQAS reports, were cross examined, summarized and presented in a chronological order, main events and actions taken were stated and narrated, comments were added when necessary to clarify ambiguities. The following are the documents and reports employed:
 - Self Evaluation Report (SER) submitted to AQAS
The report outline is provided in the current study to demonstrate the department SER components and writing approach.
 - AQAS panel of experts audit report
This report conveyed the required program improvements. It was analyzed and broken down into amendment actions that informed the condition fulfillment plan.
 - Condition fulfillment action report
The courses of actions taken to fulfil the AQAS accreditation condition are demonstrated and explained.
3. The author own experience as a member of the Tourism Department and as a member of the department quality and accreditation committee. This fact provides credibility to the narrations/comments and sequence of events established.

Understanding AQAS Accreditation System/Cycle

AQAS officials conducted a workshop for the Tourism Department members explaining the agency's accreditation philosophy and the different aspects of the application/Self Evaluation Report (SER) for accreditation. It was conducted at the College of Arts and Social Sciences - SQU (2 - 4 November 2015). A certificate was given to those who completed the workshop at the final day. Completing the workshop, participants were able to grasp a solid understating of:

- The position of the agency and the application processing phases
- The accreditation procedures, different steps, and possible outcomes
- The time schedules for the planned accreditation procedures

- The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) based criteria and indicators
- The structure of SER and the core information/documents required
- The schedule for a site visit
- The composition, tasks, and perspective of the panel of experts
- The follow-up procedure (In case of a conditional accreditation)

AQAS Accreditation Phases

The Tourism Department Undergraduate Program (Study Plan 2010) accreditation journey comprised the following steps:

1. AQAS workshop for the college on writing the application/Self Evaluation Report (SER) for accreditation
2. Submission of the application/Self Evaluation Report (SER) of the program
3. AQAS feedback on the application/Self Evaluation Report (SER)
4. The decision on the initialization of the accreditation procedure
5. Submission of the (revised) application/Self Evaluation Report (SER)
6. The panel of experts' nomination
7. The panel of experts site visit and report
8. The accreditation commission for program accreditation decision (Conditional Accreditation)
9. The Tourism Department response to the AQAS Accreditation Condition
10. Program accreditation (Unconditional)

The Application/Self Evaluation Report (SER)

The Tourism Department compiled and submitted a Self-Evaluation Report (SER) to AQAS (December 2015) which was guided by the AQAS criteria and format. The Report consisted of the following sections:

INTRODUCTION

Part ONE: Sultan Qaboos University (SQU)

Part TWO: The Tourism Department in the College of Arts and Social Sciences (CASS)

Part THREE: Tourism Undergraduate Program (Study Plan 2010)

1. Policy and Procedures for Quality Assurance
 - Vision Statement
 - Mission Statement
 - Objectives
 - Student Outcomes
 - Quality Assurance Plan
2. Quality of the Curriculum
 - Curricular structure and study plan

- Courses Monitoring
3. Learning, Teaching and Assessment of Students
 - Learning and teaching
 - Study organization and feasibility
 - Assessment and key performance indicators
 - Examinations and examination organization
 4. Student Admission, Progression, Recognition and Certification
 - Admission criteria
 - Foundation program
 - Evaluating student performance
 - Students in special life situations
 5. Teaching Staff
 6. Learning Resources and Student Support
 7. Information (Communication and Feedback)
 8. External Quality Assurance

It is worth noting that in 2013, the Tourism Department of Sultan Qaboos University crossed a milestone by being the first Middle Eastern tourism department to achieve the United Nations World Tourism Organization/Themis Foundation-TedQual certification (UNWTO.Themis Foundation-TedQual certification), which was then renewed in 2015 until September 2018, and for three more years from January 2019 until January 2022 (Atef et al., 2019).

Based on the department accumulated accreditation experience, the adopted report writing technique was that the Tourism Department Quality and Accreditation Committee Head had the task of compiling the report from A to Z then a panel of the Tourism Department members took the responsibility of checking the report thoroughly criticizing, proposing additions or amendments where necessary. This approach was possible since the department members attended the AQAS workshop on writing the application/Self Evaluation Report (SER) for accreditation.

Feedback and Comments Regarding the Self Evaluation Report (January 2016)

A mini report was sent to the Tourism Department indicating some points that needed further explanation or supporting data/documents. The following is a quoted section of the AQAS feedback and comments report (AQAS, 2016):

“...it consists of feedback or suggestions where some additional explanation or further information might be helpful. Please understand these remarks as helpful tool to facilitate the accreditation process. Due to AQAS experience it is possible to anticipate certain expectations of the experts and the early feedback at this stage might help to reduce potential misunderstandings or misperceptions...”

The Accreditation Cycle Initiation

The accreditation cycle was officially initialized by a decision of the Accreditation Commission of Agency for Quality Assurance through Accreditation of Study Programs (AQAS) in February 2016 (The Accreditation Commission of AQAS, 2016a). An official letter (email) was sent by the “Commissioner for International Affairs” to the “Tourism Department Quality and Accreditation Committee Head” indicating the official initialization of the cycle.

Revised Self Evaluation Report (SER) Submission (March 2016)

The Tourism Department guided by the AQAS feedback and comments report (January 2016) regarding the Tourism Undergraduate Program Self Evaluation Report did the necessary amendments and added the required supporting data/documents, then resent the amended (SER) to AQAS as required.

The Panel of Experts’ Nomination (March-April 2016)

All European Quality Assurance (QA) systems are “Peer-Centred”. AQAS relies on the expertise of experts from different fields. Experts must check the given criteria (ESG) but also to bring in their experience and knowledge. They are free in their judgement responding to no influence by any party. AQAS nominates a panel of experts consisting of:

- Three members with experience in internal QA and administration of a university
- A student member with experience in university administration and accreditation
- A representative of employers/employees

AQAS Accreditation Commission nominated an expert panel, and the Tourism Department did not raise any concerns against the composition of the panel.

Panel of Experts

- Chairman of the panel - Professor from the University of Applied Sciences Worms, Faculty of Tourism/Traffic, Germany
- Panel member - Representative from the Omani labour market
- Panel member (Student expert) - The University of Applied Sciences Bremerhaven, Cruise Tourism Management, Germany
- Panel member - Professor from Minia University, Faculty of Tourism and Hotel Management, Egypt
- Coordinator from AQAS

The Panel of Experts Site Visit and Report (April 2016)

Onsite, the experts interviewed different stakeholders: Representatives of the governmental tourism and hospitality sector, representatives of the tourism and hospitality private sector, alumni, and department students. Furthermore, the panel asked for additional documentation, some were department related and others were students' academic performance related.

The visit concluded with the presentation of the preliminary findings by the group of experts to the Tourism Department representatives.

Following the site visit the expert compiled a report, assessing the fulfilment of the AQAS program accreditation criteria. The report was sent to the Tourism Department for comments. The report, together with the comments of the department, formed the basis for the AQAS Accreditation Commission to decide on accrediting the program.

Decision of the Accreditation Commission of AQAS (August 2016)

In August 2016, the Tourism undergraduate program of Sultan Qaboos University was accredited according to the AQAS program accreditation criteria. The accreditation was conditional (The Accreditation Commission of AQAS, 2016b).

The Tourism Department Head received an email indicating the AQAS Accreditation Commission decision in addition to the panel of experts audit report, which was also published on AQAS official website (www.aqas.de).

The study program essentially showed compliance with the requirements defined by the criteria and thus the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and the European Qualifications Framework (EQF). The required condition was to be resolved, documented, and reported to AQAS no later than May 31st, 2017, within a period of nine months. Otherwise, the accreditation that was given for a period of five years until September 30th, 2021, would be withdrawn.

The AQAS Audit Report Condition

The AQAS Accreditation Commission decision of conditional accreditation the Tourism Department Undergraduate program was conveyed in the following words/statements:

"...The explicit academic parts of the program should be enhanced. The academic character of the program as well as elements of the curriculum developing scientific qualifications in management, methodology, and academic working skills have to be strengthened in order to ensure that the Bachelor level of the EQF is fully met. The condition is given based on the expert's assessment, as the Accreditation Commission concludes that the criterion "Quality of the Curriculum" is only partially met..." (The Accreditation Commission of AQAS, 2016b).

The Tourism Department considered the condition as an opportunity to excel in the provision of Tourism and Hospitality education.

The Tourism Department Response to the AQAS Accreditation Condition

Based on the AQAS Accreditation Commission decision of conditional accreditation the Tourism Department prepared an action plan and reported it (Tourism Department, 2016):

Changes in the Academic Plan (Plan 2010)

There were three courses which covered methodological skills and methods (Semester 1: Critical Thinking and Problem Solving, Semester 4: Research Methodology in Tourism and Hospitality, Semester 7: Statistics for Tourism and Hospitality). To assure a smoother flow of the Academic Plan courses and to strengthen students grasp of academic research skills the following course level changes were to be done:

- Statistics for Tourism and Hospitality (TOUR 4021 Specialization Requirement) course to be moved from semester 7 to semester 3 with a new code (TOUR 2021 Major Requirement).
- Tourist Behavior (TOUR 2011 Major Requirement) course to be moved from semester 3 to semester 7 with a new code (TOUR 4011 Specialization Requirement).

Addition of New Courses to the Major Electives List in the Current Academic Plan (Plan 2010)

In the short term, three new courses on general management were to be added to the study plan (Plan 2010) Major Elective: “Introduction to Management”, “Principles of Marketing”, and “Introduction to Organisational Behaviour”, leading to a stronger proficiency in using the general management skills (See Table 2).

Table 2. *To be added Major Electives*

Course Name
Introduction to Management
Principles of Marketing
Introduction to Organizational Behavior

Major Changes in the Coming-up Academic Plan

In the long term, two of the three courses previously added to the academic plan 2010 as Department Electives were to be considered in the New Academic Plan as Major Requirements, (Introduction to Management, Principles of Marketing) in addition to a course on “Principles of Accounting”, these courses would replace and update some of the study plan (Plan 2010) courses leading to a stronger proficiency in using general management skills (See Table 3).

Table 3. *To be added Major Requirements (New Academic Plan)*

Courses (To be replaced)	Proposed Courses
Tourism Authorities and Organizations	Introduction to Management
Introduction to Tourism Guidance	Principles of Accounting
Communication Skills for Tourism English I	Communication Skills for Tourism English
Communication Skills for Tourism English II	Principles of Marketing

The introduced new academic plan courses were intended to equip department students with those skills and competencies needed by the job market, improve their chances to be employed in supervisory and managerial positions, and at the same time better prepare those who intend to join the Department Master’s program.

Program Accreditation (Unconditional)

The offered responses to the AQAS condition granted the Tourism Department Undergraduate Program (Study plan 2010) the accreditation privilege for a period of five years until September 30th, 2021. AQAS trusted that the Tourism Department showed an achievable action plan to resolve the condition, and that the department was keen and dedicated to accomplishing the proposed action plan.

The accreditation status demands continuous quality assurance activities in a dynamic educational environment. Institutions should actively develop their own quality assurance plans and to inform current and future affiliates (staff, lecturers, and students) about the role and benefits of quality assurance and accreditation status on the institutions’ existence and sustainability (Nguyen et al., 2017, Atef et al., 2019).

Conclusions

This case although a success story tackles a critical issue and poses questions for discussion: The condition interferes with the very conceptual model upon which the study plan (2010) was constructed. Sure, there was an aim and a philosophy that guided the structure and the composition of the study plan (2010). To accept the condition is to change and amend, were those changes and amendments based

on the fact that the study plan (2010) was going to be changed anyway? and that those amendments support the new conceptual model that is going to guide the new study plan structuring? What about the industry? One might say that the AQAS panel of experts already met different stakeholders and based on this fact and with reference to the Standards and Guidelines for Quality Assurance in the European Higher Education Area they have done the department a favour, they provided a supportive unbiased basis for the development of a new study plan, AQAS has done the field study on behalf of the Tourism Department, simply stated, OR: The Tourism Department just accepted the condition to get the accreditation stamp? But, and as a reminder, the program has already been accredited by the United Nations World Tourism Organization/Themis Foundation (UNWTO.Themis Foundation-TedQual certification) in 2013 which was renewed in 2015 for three more years.

Back to the condition required amendments, do they accord with the TedQual certification accreditation criteria, paradigm, and work frame? To answer this important question, let us go to the basics and the very meaning of accreditation: “External accreditation is the process by which university programs in professional fields are subjected to external review and accreditation by professional bodies. Accreditation by professional bodies ensures that the programs, teaching and learning resources and scholarly activities are of consistently high quality to meet stakeholders’ expectations and to support future professionals with the required competences and skill set” (Bowker, 2017). Accreditation systems do not clash as they are all based on the same conceptual model and apply similar processes. It is common to see educational institutions who are accredited by the formal local accrediting entity hold an accreditation certification of an international entity. As long as, the academic program is well established, well managed, and maintained with clear quality measures it would pass any kind of audit or review.

Limitations and Future Research Directions

The tourism undergraduate program (Study Plan 2010) offered by the Tourism Department at the College of Arts and Social Sciences (CASS) of by Sultan Qaboos University (SQU) has received accreditation from two prestigious international accreditation institutions: United Nations World Tourism Organization/Themis Foundation (UNWTO.Themis Foundation-TedQual certification) and the Agency for Quality Assurance through Accreditation of Study Programs-AQAS), the current study relates to the tourism undergraduate program (Study Plan 2010) accreditation by AQAS only, it would be recommended to evaluate and compare between the two accreditation systems based on criteria, standards, and requirements in addition to the merits gained from each.

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Theoretical Foundations of Marketing Research in Tourist Destinations

By Svetoslav Kaleychev*

The current development of most tourist destinations is still determined by the continuing impact of the global pandemic of COVID-19, which in 2020 managed to have an unprecedented negative impact on the global tourism industry, returning it to levels known in the 1990s. According to the World Tourism Organization, the loss of international tourist arrivals is 74% in 2020 compared to the previous 2019. The same year saw a loss of revenue from international tourism of \$1.3 trillion. In these extremely difficult conditions of existence, most of the tourist organizations turn their attention to destination marketing, as the only tool that allows for successful market positioning and preservation of the existing market share. Because of that this paper will present the theoretical foundations of marketing research in order to raise awareness of their ability to provide complete and plain information, leading to motivated decisions for the strategic development of individual tourist destinations.

Keywords: *tourist destinations, marketing research, theoretical foundations*

Introduction

The global pandemic of COVID-19 has caused an unprecedented economic and social crisis in all spheres of life in modern society, making science a major source of effective proposals for economic and social recovery. It is an indisputable fact that the tourism industry was the most affected sector of the world economy. According to the United Nations World Tourism Organization (2021), "Tourism is one of the sectors most affected by the COVID-19 pandemic, impacting economies, livelihoods, public services and opportunities on all continents" (UNWO, 2020). In 2020 United Nations World Tourism Organization reports: „-74% loss of international tourist arrivals, international tourism could plunge to levels of 1990s, loss of international tourist arrivals 1 billion, loss in international tourism receipts US \$ 1.3 trillion, Estimated loss in global GDP over US \$ 2 trillion and 100-120 million direct tourism jobs at risk“ (UNWO, 2021). The data presented from UNWO really show the extremely negative effect of the pandemic on the development of the modern tourism industry. The current reality shows that this negative impact influence the development of tourist destinations, as one of the most essential elements of tourism worldwide. In this regard analysing the nature and features of modern tourism it is noteworthy that tourist destinations are the places that attract the largest number of actual and potential tourists. “The destination is defined as a geographical area that is perceived by visitors as a unique site with political and legislative framework for tourism marketing and planning” (Ianeva et al. 2021, p. 9). Tourists who prefer specific experiences travel

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to destinations to satisfy their personal desires and interests related to visiting anthropogenic or natural landmarks, participating in various recreational activities and realizing specific personal experiences that form positive emotions from their interaction with the destination and the tourist opportunities it offers. "The mission of each tourist destination should be to attract tourists and to create sustainable livelihoods for local people, contributing in the sometime to the conservation and development of natural, cultural and human resources" (Stankova 2011). It is an indisputable fact that in different periods of their existence, tourist destinations go through different cycles of development, which in turn affects their attractiveness and the way they are perceived by real and potential tourists. Such a negative period took place between 2019 and 2021. „The COVID-19 pandemic has, without doubt, been the biggest, and the most damaging, issue for the tourist industry in the past two years and, not surprisingly, plans, initiatives, and strategies designed to respond to the pandemic, and to support the recovery of the tourism industry“ (Jones 2022, p.10). As a result, it can be rightly argued that maintaining a sustainable positive image in the minds of modern tourists is one of the biggest challenges facing tourism marketing. That is why marketing research occupies an extremely important place in modern tourism, as their main goal is to establish and understand the principles of effective and sustainable interaction between tourists on the one side and tourism organizations functioning and embodying the destination itself.

In today's highly competitive tourism market, the need for accurate, timely and complete information is essential for the management and size of the market share of any destination, whether new or established. It can rightly be argued that marketing research allows tourist destinations to acquire information that will lead to the efficient use of their resources to meet the dynamically changing needs, preferences and interests of modern tourists, as well as to overcome the challenges posed by the COVID 19 pandemic to the development of the global tourism industry. Without the use of marketing research, destinations will not have the necessary information to enable them to strategically effectively positioning, which serves as a basis for creating the necessary competitive advantage. Also, because tourist destinations "have a significant role in stimulating and creating demand and need to know whether their marketing and management efforts are reaching their target markets and whether their targeted customers are responding in the desired way" (Fyall and Leask 2006), which in turn also is a function of marketing research. In this regard, in order to establish the nature, features and specific characteristics of marketing research, it is essential to understand and understand the marketing of the destination. That is why one of the most frequently cited definitions of destination marketing in the 1970s was presented by Wahab et al. (1976), according to which "the management process through which the National Tourists Organizations and/or tourist enterprises identify their selected tourists, actual and potential, communicate with them to ascertain and influence their wishes, needs, motivations, likes and dislikes, on local, regional, national and international levels and to formulate and adapt their tourist products accordingly in view of achieving optimal tourist's satisfaction thereby fulfilling their objectives" (Wahab et al. 1976). Also of interest is the opinion of Murphy et al. (2000),

according to which “destination marketing is then an amalgamation of individual or collective efforts and activities created to form a total experience of a visited place” (Murphy et al. 2000). That’s why “destination marketing has become an integral part of developing and retaining the essence of the tourism macro-product” (Vukonic 1997).

The presented opinions on destination marketing provide an opportunity to establish their essential importance for tourism and the opportunities it provides for the optimal and effective supply of modern products and services that meet market needs and expectations. Understanding the dynamics of the market is essential for the management of the destination and the overall tourist experience it offers. “Hence, destination marketing research may cover almost any exploratory effort by any organization to understand the market, promote the place, or enhance and augment the existing tourism goods and services through positioning strategies that support the sustainability of tourism business” (Muzaffer et al. 2011).

Literature Review

The present study focuses on the theoretical foundations of marketing research of tourist destinations, but it should be noted that in the process of its creation the essence and characteristics of marketing research, tourism marketing, destination marketing and marketing research of a tourist destination are considered. The review of the literature on those subjects shows the existence of a wide variety of different scientific research. Regarding marketing research, the publications of Bagozzi (1994), McDaniel (2018), Bradley (2007), Kent (1999), Juska (2021) and Babin et al. (2020). Regarding tourism marketing, publications of Wahab et al. (1976), Kotler et al. (2021), Fyall and Garrod (2011) and Oelkers (2006). Regarding destination marketing, the publications of Harrill (2005), Wang and Russo (2007), Fyall and Leask (2006). About tourism destination marketing research can be noted the papers of Perdue and Pitegoff (1990), Vukonic (1997), Muzaffer et al. (2011) and Ghiuta (2009). Regarding the valuable Bulgarian developments in the study area, the publications of Anastasova (2013) and Zhelev (1995) can be distinguished. All of the presented scientific publications add value to scientific knowledge and in particular to the present study. At the same time, they provide an opportunity for analysis of the views and theoretical formulations presented from the authors and related to the subject of this paper.

Methodology

The methodological approaches used in the creation of scientific papers are extremely diverse, which significantly complicates the choice of an appropriate set of methods based on the specifics of current research. To achieve the objectives of the present study, a methodological apparatus was used, including a set of methods such as: observation, analogy, comparative analysis and synthesis. In their entirety, they are the subject of an inductive-deductive and systematic approach to issues related to tourism marketing and in particular are aimed at presenting the theoretical foundations of marketing research on tourist destinations. The general methodological

framework is based on a review of the literature on the topic, including searching for and reviewing sources of information, using a multi-attribute approach. The overall logical construction is based on the opinion that each study contributes to the emergence of new conclusions and statements, which in turn lead to new knowledge and opportunities for informed management decisions.

Results

The process of conducting each marketing research is aimed at collecting data and generating information. Because of that, they can answer a variety of research questions and identify the most effective solutions to the difficulties encountered in the management of tourist destinations. In today's highly competitive tourism market, marketing research of destinations is a continuous process involving a large number of participants - from tourists, through providers of tourism products and services and leads to the administrative management of the destination. In today contemporary conditions and imposed principles of social distance from the emergence of the global pandemic of COVID19, in a highly competitive tourism market, destination marketing research is a continuous process involving a large number of participants - from tourists, through providers of tourism products and services and the administrative management of the territory in which the destination is located is reached. It can be rightly argued that there are two leading goals in terms of destination marketing research: (i) to increase demand for the destination while maintaining a sustainable competitive edge in the minds of actual and potential visitors; and (ii) to facilitate effective destination management" (Muzaffer et al. 2011, p. 103). Therefore, it can be assumed that the main function of destination marketing research is to provide information that will form effective processes aimed at making strategic decisions about the destination's marketing policy and the goals and objectives of its management.

Taking into account the specificity and complex nature of tourist destinations, six main types of research can be identified, which are widely used in marketing research:

1. *Market and customer research*, which are aimed at providing information on the size of markets and market segments, the size of the market share of tourist destinations, specific characteristics, preferences and motivations of tourists, market forecasts, consumer behaviour research etc.
2. *Product studies (including services)* provide information on the opportunities associated with the creation and offering of new tourism products or services, specific characteristics of the products sought, the usefulness of the products and services offered, comparability between products and direct competitors and identification of the specific stage of the life cycle of the specific product or service.
3. *Studies of promotional activities* provide information aimed at selecting and identifying the most effective methods and tools to promote the product or service, emotional impact on consumers, to select the most

appropriate communication channels in a particular marketing campaign, for evaluation of the effectiveness of the conducted marketing campaigns, etc.

4. *Research of the distribution activities*, which should direct the marketing managers to the preferred transport from the target group determined for research; the preferred season for a given tourist activity; which destinations are more attractive for tourists, etc.
5. *The sales research* is aimed at assessing the effectiveness of the methods used, techniques and methods for selling tourism products and services, establishing the preferred consumer methods of payment, establishing customer satisfaction in the purchase process.
6. *The study of the marketing environment* provides complete and accurate information about the marketing environment with its six components: “natural, economic, political, legislative and technological, demographic/ socio-cultural environment” (Ghiuta 2009, p. 2).

Also, in order to reveal the nature and peculiarities of marketing research in relation to tourist destinations, their goals and functions must be taken into account. In this regard, according to Anastasova regarding the goals associated with the assignment or implementation of a marketing study, there are four main groups:

- Through the results of a study to systematize information that will affect a particular consumer audience.
- Create a new or modify or transform an existing product or service in a way that will arouse the interest of a specific target audience.
- Gathering information about the behaviour, preferences and interests of consumers.
- To identify the needs of the organization’s customers who were not met at the time of purchase.

On the other side, the main functions of marketing research also have their diverse nature, but it can be argued that the most important function is related to the ability to informed strategic decisions for the management of the organization. Other features that need to be presented and that play an important role are:

- To carry out continuous communication between the client and the organization to gather up-to-date information about market trends.
- To provide complete and reliable information for strategic management decisions.
- To assist in resolving difficulties related to the management and functioning of the organization.
- To support the creation of new management strategies.

In terms of methodology, according to Middleton (2001) there are ten types of marketing research in tourism and they are grouped as follows:

1. *Continuum research and ad hoc research* are used to obtain information related to certain key variables. Ad hoc research is conducted expeditiously and is aimed at clarifying a specific problem. A typical example in this regard is their use when there is a need to establish a systematic decline in revenue of an office of a particular travel company. On the other side, long-term research is carried out continuously in different time ranges (daily, weekly, monthly). Examples of key variables studied could be the percentage occupancy of hotel rooms in the destination, the volume of tourist products and services sold, etc. It should also be noted that in terms of marketing practice, the presented surveys can be used together. Because most of the marketing research is a mixture of continuous research that aims to identify key market trends and Ad hoc research, which aims to periodically identify specific threats and business opportunities for the tourism organization.

2. *Quantitative and qualitative research*. Of interest in this type of research is the fact that qualitative research focuses on questions such as WHAT, HOW and WHY, while quantitative research answers questions such as WHO, WHERE, WHEN and HOW MUCH.

That is why qualitative research is used to:

- Determining the parameters of the market.
- To present the opinion and attitude of customers to a product or service.
- To establish customer behaviour.
- To clarify the attitude of customers to the brand and the specific organization.

On the other hand, qualitative research has the ability to establish:

- Opportunities in a market.
- Changes in consumer behaviour.
- New markets.

According to Gordham and Langmaid (1988), there are 5 types of information that can be obtained from qualitative research, namely:

- "To define the perceptions and opinions of customers about the market and/or product in order to help competitors understand the relationship between different types of products and/or varieties in each product category from the customer's point of view rather than from the point of view of the manufacturer.
- To segment the market in relation to the product or its brands, namely psychographic segmentation. That is, in terms of lifestyle.
- To choose the dimensions, the characteristics that vary between the different varieties of the brand, the criteria and the emotional settings. This is necessary because more and more emotional beliefs and attitudes come into play in the process of making purchasing decisions - whether they are decisions of companies or individual customers.

- To better understand the purchasing decision-making process and/or customer consumption pattern.
- To generate hypotheses” (Gorden and Langmaid 1988).

Analyzing the nature of qualitative research can be deduced their important role determined by their ability to clarify the issues to be studied and the research parameters that need to be determined to achieve a complete and reliable study.

According to Anastasova (2015), qualitative research can be divided into four main groups:

- Studies of the initial study of the problem.
- Diagnostic tests.
- Evaluation research.
- Development research.

On the other hand, Kent’s opinion is of interest, according to which “the validity of information in qualitative research depends on the following factors:

- Data quality - accuracy, comprehensiveness, relevance to the problem of data collected from individuals or groups of individuals.
- The status of the results of quality techniques - their reliability, truthfulness, possibility of generalization, i.e., the degree to which they can be defined as scientific” (Kent 1993, p. 125).

It can be said that the main purpose of quantitative methods is to gather sufficient information on public attitudes and preferences, which is later analyzed by statistical methods. Quantitative testing means such testing in which the numerical values obtained can be measured. Quantitative research is always based on structured questionnaires, which ask each respondent to answer the same questions, and individual variations are not possible. Quantitative methods are most often used to characterize some basic signs of motivation. They also use sampling methods, which are used in connection with the reduction of time and costs to achieve research goals. The obtained results are presented in quantitative measures, such as ratings, evaluation, etc.

3. *Primary research and secondary research.* Primary research is carried out in cases where the desired data are collected directly from the surveyors, using methods such as observation, experiment and market research. Secondary research focuses on the use of information gathered through other studies or references, often for purposes other than those related to the particular study, and which may be used by the organization for the purposes of its research process. For example, all published sources, including data from statistical institutes and organizations such as Eurostat, or information found, through the use of the Internet and through surveys of certain tourist associations, etc.

4. *Omnibus research and collective research.* Due to the large scale of the tourism market, large market research companies sell their own research to a range of interested smaller tourism organizations. Such research is known as the

omnibus because it is potentially open to all users. “The principle is that a particular research marketing agency works for multiple clients, each of whom orders, pays and is the sole owner of the information about the variables of interest included in one research tool (questionnaire, diary, survey, etc.)” (Tsonev 2013, p. 9). On the other hand, the collective surveys are similar to the omnibus surveys, but their implementation is carried out by a group of clients who share the costs of conducting the survey itself, taking into account the number of questions asked.

Omnibus and collective research allows for full-fledged low-cost research due to the possibility of sharing the costs of their implementation. That is why this type of research is preferred by small companies, for which the costs allocated to special research are often burdensome for the budget.

5. *Consumer and distributor research.* User-level research is based on the use of user panels. In this type of research, the separate panels are based on a representative sample consisting of individuals or households within a particular country, who on their own consent keep a complete record of their purchases for a specific period of time. The purpose of these studies is to accumulate information that will answer the question of what exactly the surveyed customers buy. Dedicated panels have the ability to generate information to be used in making strategically important decisions for the future activities of the organization. In this regard, Parti (1999) classifies the analysis of data from these studies into three groups:

- An analysis of trends is prepared, which is based on periodic surveys, for example every month or every three months, and which reveals the dynamics of the market and the activity of the main brands.
- Preparation of an analysis focused on the characteristics of determining customer behavior.
- Preparation of an analysis of the research aimed at the typical types of customer behavior and the impact of the marketing environment on them.

Distributor-level surveys are used less in the tourism market and in particular for tourist destinations, as they focus mainly on the trend in the fight for reservations, marketing activities of the organization operating in the destination and others.

With regard to the tourist construction, three other types of marketing research are impressive, creating an opportunity to assess the success and value of the policy or implemented programs in connection with the development of tourist destinations.

1. *Descriptive research*, they are widespread in tourism because of their ability to provide information about new trends in practice and to effectively identify changes in nature and phenomena. Descriptive research can provide information on specific activities or destinations that have not been thoroughly studied to date. As tourism is a new field of study, there is a requirement for a territorial map.

2. *Explicit research* makes it possible to explain the observed trends through the use of descriptive research. This type of research examines causal relationships. Once the cause is identified and analyzed, the information obtained can be used to create different types and ranges of forecasts.
3. *Evaluation research*, this type of research is aimed at establishing an assessment of the success or effectiveness of the policies and strategies used. Giving a certain numerical value allows for a quick analysis of the success of the implemented strategy or policy, which in turn leads to effective management decisions.

Analysing the specifics of marketing research of tourist destinations in terms of their strategic orientation, two main types are identified according to Azar (Azar and Tumanov 1998, p. 45).

- Research aimed at discovering new opportunities.
- Research aimed at using the newly discovered opportunities.

The first type may include product studies, segmentation studies, motivation studies, image studies and price studies. The second type includes all studies related to advertising and distribution channels used to carry out the activities of the organization.

It is essential for any marketing research not to create a program that represents the “theoretical, methodological and organizational framework of marketing research” (Желев 2012, p. 118). Research programs are generally divided into three types:

- *Formulative research programs* that focus on research aimed at identifying the most effective available management or research problems, to formulate research hypotheses; identify different lines of action; to generate ideas and proposals for specific actions, etc. In this type of program, the main methods of communication are in-depth interviews, group discussions, talks with experts, secondary data processing.
- *Descriptive research programs*. “They seek to describe and quantify the variables of interest to them, such as market penetration, market shares, levels of consumer loyalty, brand awareness, and more. The descriptive program is applied to structured research problems and precisely formulated hypotheses” (Tsonev 2013, p. 101). This type of program answers six main questions:
 - Who: Who are the loyal buyers of the brand? Who gave it up?
 - What: what do consumers prefer in one case or another that influences their choices?
 - How much: How often do you buy the product? Quantity of the product that is bought with one standard purchase.
 - Where: Where do buyers prefer to make purchases? Where is the consumption made?

- When: When are purchases planned? When are they actually performed?
 - How: How do users make suggestions? How do consumers express their satisfaction or dissatisfaction?
- *Experimental (causal) research programs.* They are used in establishing and studying causal relationships between the phenomena of interest to us. They provide answers to important questions such as: which variables are causes and which are consequences in order to logically explain the causal relationships.

Establishing the nature and features of the theoretical foundations of marketing research in tourist destinations, some new trends must be presented, having all the necessary characteristics to become an integral part of current and future theoretical basis of marketing research in tourism and in particular tourist destinations.

The ongoing global pandemic of COVID-19 has led to far-reaching changes in the way of life of modern society, which in turn has affected many socio-economic sectors. In this regard, the dynamic development of digital technologies has led to the emergence of new marketing approaches, methods, techniques and ways to conduct marketing research. Some of them are in fact the application of new or innovative technologies to the research tools established over the years.

The dynamic development of information and communication technologies in recent years has allowed the collection, processing and analysis of large data sets to be done in an extremely easy way through the Internet and technologies based on artificial intelligence. That is why some of the modern marketing research that is widely applicable to tourist destinations are:

- *Mobile methods of marketing research:* modern smartphones, tablets, smart watches and high-tech computers allow access to a large amount of information indefinitely. The ubiquity of these digital devices has made them a preferred platform for many companies, due to the ability to quickly access the minds of many modern users. That is why marketing research has focused on using much of the digital technology known so far to meet the challenges posed by the highly competitive tourism market. For example, specialized marketing research that focuses on the selection of a particular market segment may use technologies that conduct localized research (through the location of the user determined by mobile phone). Also, “the use of user location information enables marketers to gather detailed information through mobile phones about consumer behavior, enabling them to better understand consumer habits, lifestyles and preferences” (Anastasova 2015).
- *Virtual shopping:* this method is performed by conducting an experiment representing a virtual simulation of a store, which simulates and explores the customers shopping experience. This method gives effective results in conducting marketing research focused mainly on the location of the offered, the interior of the store, packaging and merchandising. The

positive side of the method is the re-creation of a real situation that will predispose clients to their normal reactions, thus achieving maximum reliability of the study.

- *Biometric research techniques*: they are aimed at measuring and establishing physical reactions formed under the influence of various external stimuli such as videos, advertisements, internet banners etc. The specificity of the method is the high reliability of the information received due to the formation of natural reactions from customers, which otherwise they would not show. Examples of biometric research techniques include measuring heart rate, respiration rate, eye movement, brain activity etc.
- *Marketing research through social networks*: it is an indisputable fact that various social platforms such as Facebook, Twitter, Tik Tok, Instagram are dominant in the global Internet. That is why modern marketers are focusing their efforts on finding ways, means and methods through which to use modern digital technologies for the needs of marketing research. The opportunities provided by this type of research are related to market research of the social networks themselves and the implementation of marketing research based on information from social networks.

Conclusions

The ongoing global pandemic of COVID-19 has completely changed the principles, methods and techniques that define the well-known tourism industry. Marketing, and in particular its research, has become a major tool for combating competition and gaining a sustainable market share for many tourism organizations, which in turn determine the appearance of modern tourist destinations. Much of the marketing research of tourist destinations aims to reveal the social, economic and psychological motives determining the behavior of modern tourists, as well as the ability of individual destinations to create an environment that offers a full tourist experience determined by the satisfaction of specific desires, preferences and needs.

Also, this type of research has the opportunity, through collected data and analyzed information to identify trends and future prospects characterizing the behavior of individual market segments. In this regard, it is extremely important for tourist destinations to establish the overall set of processes, principles, models and good practices that determine the functioning of the modern tourism industry and model the preferences and interests of real and potential tourists. „In the face of the continuing unpredictability of the future of the COVID-19 pandemic, planning for the recovery of the tourism sector, poses a complex series of challenges“ (Jones, 2022 p.15). It is noteworthy that tourist destinations are greatly influenced by the political and economic environment, social and cultural differences and characteristics, environmental environment, management practices and government regulations. That is why the proper planning and conduct of marketing research of destinations can provide information that will be the basis of their strategic management.

It can be rightly argued that the foundations of modern marketing and in particular marketing research will always be the same, but with the change in the marketing environment determined mainly by the increasing use of digital technologies, “the most important thing is how the fundamental postulates of marketing are activated, supplemented and applied” (Anastasova 2013, p. 8)

Analysing the possibilities and applications of marketing research in terms of tourist destinations and their effectiveness in overcoming the challenges facing the tourism industry from the global pandemic of COVID 19, it can be reasonably suggested that they should be focused not only on demand issues, but they also focus on supply, as only the synergy between them will lead to the supply of a quality and sustainable tourism product. Also, marketing research must be based on sound theoretical foundations that provide the necessary scientific knowledge and good practices, creating the necessary competitive advantage and market success of the destination.

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