Institution: Bournemouth University

Unit of Assessment: 24

Title of case study: Digitisation of tourism and hospitality marketing: towards smart ecosystems

Period when the underpinning research was undertaken: 2007-2020

Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Professor Dimitrios Buhalis	Role(s) (e.g. job title): Professor and Deputy Head International Centre for Tourism and Hospitality Research	Period(s) employed by submitting HEI: September 2007-current

Period when the claimed impact occurred: August 2013-December 2020

Is this case study continued from a case study submitted in 2014? No

1. Summary of the impact (indicative maximum 100 words)

Technological revolutions propel innovative digital marketing, providing unprecedented opportunities for global tourism. Tourism businesses and governments can use smart technologies strategically. Professor Dimitrios Buhalis' research into smart digital marketing has transformed strategies for tourism industry organisations and governments, supporting their competitiveness. Through close collaboration with leading international organisations, including: the United Nations World Tourism Organisation, the European Travel Commission and the Pacific Asia Tourism Association, his research has been used in the UK and in over 10 other countries, including: Greece, China, Egypt, Spain, Turkey, Lithuania and Portugal, to increase their competitiveness and benefits from tourism.

2. Underpinning research (indicative maximum 500 words)

With intensified competition globally, it is paramount for tourism businesses and governments to explore technology to optimise processes, deliver more meaningful and personalised experiences to consumers and enhance competitiveness and profitability. Professor Buhalis has spent the past 20 years researching how Information Communication Technologies (ICTs) can revolutionise marketing in tourism and hospitality. Since his arrival at Bournemouth University in September 2007 his key focus has been how to use digital technology to engage with the consumer; and how tourism organisations and destinations can develop their competitiveness and improve their profitability by developing smart networks. By dynamically connecting all members of the tourism ecosystems, "smart" networks co-create value for all stakeholders [R6].

Professor Buhalis has been at the forefront of establishing e-tourism as a leading area of research, with the impact noted in this case study based on his body of research between 2007 and 2020. His research during this period has focused on the following key areas:

- The use of the internet (Web 1.0) to enable organisations to communicate their offerings and facilitate eCommerce transactions [R1].
- The application of social media and Web 2.0 to interact with consumers and engage with stakeholders through two-way dynamic communications [R5, R3]. This enables the 'co-creation' of experiences with customers, enabling personalisation and contextualisation generating additional value and loyalty [R2, R5].

- The development of Smart Tourism ecosystems, using technology to develop agility, facilitate value co-creation [R2] and deliver services in real time [R5]. For tourism destinations and governments, this means that they can integrate their production and supply systems, enhancing their competitiveness [R6].
- For tourism businesses, such as hotels, travel agencies and tour operators, adopting a smart ecosystem can help develop their competitiveness and profitability through interconnectivity and interoperability [R4].

He was a founding member and subsequently elected as President (2010-2014) of the International Federation for Information Technologies in Travel and Tourism (IFITT) and has chaired more than 10 of their annual ENTER conferences. His research has attracted funding from industry, local government, the National Coastal Tourism Academy, the EU and other bodies [G1].

3. References to the research (indicative maximum of six references)
All publications below are published in peer reviewed journals:

R1 Buhalis, D. and Law, R., 2008. Progress in information technology and tourism management: 20 years on and 10 years after the Internet -The state of eTourism research. *Tourism Management*, 29(4), pp.609-623. DOI**: 10.1016/j.tourman.2008.01.005**

R2 Zhang, H., Gordon, S., Buhalis, D. and Ding, X., 2017. Experience Value Cocreation on Destination Online Platforms. *Journal of Travel Research*, 57(8), pp.1093-1107. DOI: 10.1177/0047287517733557

R3 Williams, N., Inversini, A., Ferdinand, N. and Buhalis, D., 2017. Destination eWOM: A macro and meso network approach? *Annals of Tourism Research*, 64, pp.87-101. http://doi.org/10.1016/j.annals.2017.02.007

R4 Buhalis, D. and Leung, R., 2018. Smart Hospitality – Interconnectivity and Interoperability towards an Ecosystem, *International Journal of Hospitality Management*, Vol.71, pp.41-50 https://doi.org/10.1016/j.ijhm.2017.11.011

R5 Buhalis, D., Sinarta, Y., 2019, Real-time co-creation and nowness service: lessons from tourism and hospitality, *Journal of Travel & Tourism Marketing*, 36(5), 563-582 https://doi.org/10.1080/10548408.2019.1592059

R6 Buhalis, D. 2020, Technology in tourism-from information communication technologies to eTourism and smart tourism towards ambient intelligence tourism: a perspective article, *Tourism Review* 75(1), 267-272 https://doi.org/10.1108/TR-06-2019-0258

Grant:
G1 European Commission, 2011, *Digital Interactive Graffiti*, GBP166,282.

4. Details of the impact (indicative maximum 750 words)

The work of Professor Buhalis has had a clear, sustained and significant impact on the competitiveness and profitability of many tourism organisations and destinations around the world.

Tourism businesses
Individual tourism practitioners and organisations have applied insights from Professor Buhalis' research to enhance their profitability and competitiveness. His work on co-creation has informed social media strategies for hotels across the world enhancing their online brand reputation; improve customer engagement and increase repeat business.

The President of Wyndham Hotels & Resorts, EMEA states that they have collaborated *"with Professor Buhalis and his team on the visionary approach they are taking to research, as we all look towards the way hospitality will look in 2030"* [E1]. Wyndham Hotels & Resorts is the world's largest franchisor of hotels, encompassing 8,900 hotels with 796,000 rooms in 95 countries under 20 hotel brands [E1].

Aliathon Resort in Cyprus,developed its online engagement and reputation as a result of Buhalis' work, starting that *"by engaging with our guests…on social media we have managed to increase our conversion rate, support customer experience and improve satisfaction as realistic expectations are built before customer arrivals"* [E2]. The Aliathon Resort estimates that Buhalis' insights have extended the tourist season, increased the loyalty of guests and enhanced revenue by approximately EUR4,000,000 annually, between 2013-2019 [E2].

Aquis Hotels and Resorts has achieved an occupancy rate 10% above and average room rate 8% above the competition, which their CEO attributes to insights gleaned from Professor Buhalis [E3]. Aquis states that *"the dynamic use of social media recommended by [Buhalis] to engage in conversation with consumers and to push special offers, based on a comprehensive revenue management methodology, meant that Aquis Hotels developed significant competitive advantage, resulting in faster growth and market penetration"* [E3].

Professor Buhalis's research into "smart ecosystems" has fed directly into the development of the Omnibees Booking Engine, which helps hotels to manage online travel agencies, tour operators, travel management companies and booking engines. Ominbees states: *"We have been following [Buhalis's] research outputs for more than 10 years and he has been advising us since 2010, enabling us to develop our distribution management solution globally. Over that period Dimitrios' strategic approach towards an integrated distribution mechanism has enabled us to develop the Omnibees Booking Engine as a booking engine that has the best conversion rate on the market"* [E4].

In China, Professor Buhalis' research into smart tourism has reached more than 1,000 key policy and business decision makers [E8], including the Zhejiang Drore Technology Company - the leading smart tourism technology company in China. A board member of the company states that his company engineers, who deliver a tourism cloud service that integrates technologies, such as 3D live maps and augmented reality, have *"studied [Buhalis'] research and publications to better understand the potential of technology to develop industry solutions for smart tourism"* [E7]. This has resulted in a company investment of USD4,000,000 into the Israel-headquartered Tourism Tech Company Acoustiguide that offers devices and apps for multimedia guided tours, including at the British Museum [E7].

National governments
Professor Buhalis has worked with over 100 national governments and tourism bodies to develop e-tourism strategies, strengthen the competitiveness of destinations, and increase tourism revenue. This includes: Visit Britain, the British Hospitality Association, Tourism Australia, the Ministry of Tourism in Jamaica, the African Tourism Leadership Forum, the Ministry of Tourism in Oman and the Agency for Development of Human Resources in Cyprus, a country where he has trained more than 1,000 hotel owners and managers in the creative use of social media [E3, E6b].

Egypt's Ex-Minister of Tourism states: *"Buhalis created a strategy to redevelop our digital presence, redevelop the web site and engage social media in promotion of Egypt. He trained employees…to develop a new comprehensive web site (*http://www.egypt.travel/*) internally at 1/10 of the cost. The new web site was dynamic, adaptive and could be easily updated locally. He enabled the country to communicate better and promote its tourism industry"* [E5].

International organisations
Professor Buhalis has acted as an adviser to the UN World Tourism Organisation since 2006, a position that has helped him to put technology and digital at the top of the tourism agenda

globally. In 2018 the UNWTO's World Tourism Day was themed around digital technologies, with the UNWTO stating that Buhalis' research is "a major feature" in the debate around big data, artificial intelligence and digital platforms, which all form a *"central part of the solution to the challenge of marrying continued growth with a more sustainable and responsible tourism sector"* [E6a].

The UNWTO also testified that Buhalis *"influenced the key agendas and policies of the UNWTO. Professor Buhalis is a world leader in innovations emerging from technology and his research demonstrates pragmatic ways in which these technological innovations can be implemented. Between 2013 and 2018 Professor Buhalis worked closely with the UNWTO to incorporate findings from his research into global tourism policy and best practice. He engaged in active dialogue with UNWTO executives and regional directors, as well as being elected Vice Chairman of the Affiliate Members"* [E6b].

Covid-19
During the Covid-19 pandemic he collaborated with the UNWTO, TravelDailyNews, hotel associations and other media organisations channels to facilitate more than 150 online live sessions and discussion forums; training industry and governments around the world on how to use smart technologies to restart tourism, adopt hygiene protocols and communicate dynamically with stakeholders. He was also in demand from global media organisations for insights into the effect of the pandemic on the industry [E9, E9a].

Buhalis also contributed to the Travelworks Public Relations white paper 'Voices of Clarity' which brought together the views of 32 hospitality leaders and academics from the UK, EU and US to map out a road to recovery for the industry post Covid-19 [E9b].

The UNWTO notes that Buhalis *"joined forces with several Ministers and industry leaders to assist African governments and tourism organisations to address Covid-19 related challenges and restart tourism"* [E6b].

5. Sources to corroborate the impact (indicative maximum of 10 references)

E1 Wyndham Hotels & Resorts, 2021, *testimonial letter*, 23 February.

E2 Aliathon Resort, 2019, *testimonial letter*, 9 January.

E3 Aquis Hotels, 2019, *testimonial letter*, 7 January.

E4 OMNIBEES Brazil and Portugal, 2019, *testimonial email*, 3 February.

E5 Ex-Minister of Tourism, Egypt, 2020, *testimonial letter*, 22 April.

E6a United Nations World Tourism Organisation, 2019, *testimonial letter*, 14 January.
E6b United Nations World Tourism Organisation, 2020, *testimonial letter*, 14 December.

E7 Zhejiang Drore Technology Company, 2019, *testimonial letter*, 8 January.

E8 UNWTO Recommendations, March 2016, 1975–2015, March 2016, https://www.e-unwto.org/doi/pdf/10.18111/9789284417797, p.105

E9 BBC, *BBC News*, 2020, 3 July https://www.youtube.com/watch?v=BexBmi0Ydq0
E9a Online Media interviews, forums and conferences, 2020-2021.
E9b Travelworks PR, 2020, *Voices of Clarity*, white paper, pp171-185. Available online: https://travelworkspr.com/wp-content/uploads/2020/05/Travelworks-Whitepaper02-Voices-of-Clarity.pdf