Fwaya Erick Victor Onyango / Hema Kesa

The fourth industrial revolution: Implications for hotels in South Africa and Kenya

Abstract

In this research note we seek to highlight the implications of the fourth industrial revolution for hotels in South Africa (SA) and Kenya. We have demonstrated that South Africa has excelled in mobile phone penetration as well as social media use compared to Kenya. However, Kenya is ahead of South Africa in mobile money transfer systems and has the fastest and lowest internet rates in Africa. It is evident that tourist arrivals are being consumed by uncontrolled sectors fuelled by online marketing agencies, which are gradually replacing the traditional distribution channels in the hotel industry. In addition hotels in SA and Kenya are experiencing a sharp escalation in web-based bookings. The first implication of this is that established hotel companies are facing competition from facilities that cannot be regularized particularly for the leisure travelers. Secondly, web-based booking has made it necessary for new tech savvy talent to be recruited at the expense of the erstwhile-preferred extrovert tourism executive. We have also found out that hotels use mobile social media in communication, sales promotions, relationship development and loyalty programs as well as marketing research. The spontaneous and unpredictable aspect of social media represents a real challenge for hoteliers.

Key words: fourth industrial revolution; mobile phone; social media; hotels; South Africa; Kenya

Introduction

From the Twitter handle *@realDonaldTrump* which Donald Trump, the US President, uses to communicate in an immediate way to millions of people worldwide; to Kenya's M-PESA, the mobile phone-based money transfer service that allows users to make convenient transactions; to Facebook, a technology that has nurtured a global connected community; to Hilton hotels' chatbot, *Connie,* who assists guests at check-in and advises them on local attractions; and the existence of more mobile phones than taxis, TV's, and radios combined in South Africa (SA), the fourth industrial revolution (FIR), also known as Industry 4.0, is indeed here with us. Schwab (2016) defines FIR as "technological revolution that will fundamentally alter the way we live, work and relate to one another." The FIR is characterized by the emergence of technological breakthroughs in artificial intelligence, automation and robotics, connectivity with mobile devices, and access to data and knowledge. Whilst FIR may have its own benefits and challenges, it is interesting to understand the implications for the hotel industry in SA and Kenya. Evidence demonstrates that the two countries have been experiencing the technological advances associated with the phenomenon of Industry 4.0. Therefore, this research note aims to: highlight the general dimensions of FIR currently in use; examine specific dimensions of FIR prioritized by hotels; and analyze the challenges faced by hotels from the dimensions of the FIR.

Fwaya Erick Victor Onyango, PhD, School of Tourism & Natural Resource Management, Maasai Mara University, Narok, Kenya; E-mail: erickfwaya@gmail.com

Hema Kesa, PhD, School of Tourism & Hospitality, University of Johannesburg, Johannesburg, South Africa; E-mail: hemak@uj.ac.za

The FIR dimensions in use in South Africa and Kenya

The FIR has disruptive effect on all countries and economic sectors, including hotel industry. In our view, a unique mix of high mobile phone penetration, fast mobile internet, mobile money transfer, and pervasive social media use provides hotels in SA and Kenya with opportunities for investment. Our observation and experience show massive use of the mix compared to other dimensions of the FIR in the two countries.

Mobile devices and internet connectivity

Most regions of the world are increasingly gaining access to the mobile phones and internet, with mobile phones driving a great deal of the gains. Apart from being cheap and easy to use, mobile phones do not require much literacy or numeracy. In addition, mobile phones provide numerous interactive opportunities through apps, text messaging, calling, and internet browsing. In our opinion mobile phone penetration is one area in which SA and Kenya have made significant achievement. Mobile telephone penetration currently stands at around 128% for SA (World Wide Worx & Fuseware, 2016) and 88.7% for Kenya (CAK, 2017), figures significantly higher than African average of 65% (Praekelt, 2012). The implication is that if a business wanted to broadcast its message to several people in the two countries, the mobile phone would be the perfect medium.

Additionally, investments in grid infrastructure have also expanded mobile telephony networks resulting in increased uptake of internet services. The most common uses of the internet in SA and Kenya include social networking, sending and receiving e-mails, banking and money transfer services, instant messaging, and checking facts and definitions. Internet access via phones stands at more than 60% for SA and Kenya (GSM Intelligence, 2017). According to a survey of 40 countries in the world, SA and Kenya rank positions 24 and 30, respectively, when it comes to smart phone penetration (Pew Research Center, 2017). Kenya is reported to have the highest bandwidth per person in Africa, the fastest speeds and one of the lowest internet rates (Akamai, 2016; Wangalwa, 2014). Nevertheless, SA equally has a robust mobile broadband infrastructure.

Mobile devices and money transfer

M-PESA is considered the world's most successful money transfer service launched in 2007 by Kenya's leading mobile service provider, Safaricom. The "M" stands for mobile; "pesa" is the Swahili word for money. M-PESA account holders purchase electronic funds at M-PESA agent outlets and send the electronic value to any other mobile phone user, who may then redeem it for conventional cash at any M-PESA agent outlet. Many Organizations are taking advantage of this widespread use of mobile money transfer systems as a platform for other services. Vodacom introduced M-PESA to SA in 2010 and 2014, with the service flopping in both occasions (van Zyl, 2016). In our assessment, this failure is attributable to SA's highly banked population as well as existing money transfer market.

Mobile devices and social media

We are convinced that the greatest potential for mobile usage in SA and Kenya lies in the area of social media. While a significant number of users rely on computers and tablets to access social media, it is clear that the mobile phone has become the primary means of access in SA and Kenya. A recent survey has revealed that SA has 14 million Facebook users, 7.4 million Twitter users, 8.28 million YouTube users, and 2.68 million Instagram users (World Wide Worx & Fuseware, 2016). The majority of Facebook users in SA, 85%, browse the social network through their mobile devices. While Instagram has been traditionally used by the general public and celebrities posting photos, this visual networking site is also attracting the attention of companies. To date Mr. Price and Mercedes Benz have had the most success with individual images locally (World Wide Worx & Fuseware, 2016). For the second year in a row, social media apps have also been some of the most popular free downloads on all three major app stores in SA. The fact that Instagram continued to grow at a high rate and that YouTube has seen a massive increase in engagement with brands, confirms our contention that the social media is maturing into a more stable and measurable environment that can be leveraged more effectively by hotel brands in SA.

In Kenya, social media use has grown in unimaginable leaps and bounds, making the country only second to SA in terms of social media usage in Africa. The top five social media platforms, in Kenya are Facebook, Twitter, Linkedin, Instagram and Snapchat, respectively. Facebook and Twitter account for approximately 6.2 and 2 million users, respectively (Internet World Stats, 2017). Linkedin, Instagram and Snapchat are used by as many as 4 million people combined.

The FIR dimensions and hotels in South Africa and Kenya

The 10 and 1.18 million visitor arrivals into SA and Kenya in 2016, respectively (South Africa Tourism Annual Report, 2016/2017; KNBS, 2016), come under this hammer of industry 4.0. In Kenya for instance, there's evidence that the tourist arrivals are being consumed by the uncontrolled sector fueled by online marketing agencies (Wanja, 2017). The online marketing agencies are gradually replacing the traditional distribution channels in the industry, such as tour operators and travel agencies that have been in the hotel business model for ages. Although the uptake is still low due to mistrust and extra charges for online purchase, we predict that this phenomenon will be more rampant in the near future. We have also observed that hotels in SA and Kenya are experiencing a sharp escalation in web-based bookings. The first implication of this is that established hotel companies are facing relentless competition from facilities that cannot be regularized particularly for the leisure travelers. With growing security concerns and desire for personalized service, leisure and long-staying travelers are more likely to choose boutique facilities, home-stays and furnished apartments over large, many-roomed hotels where they are just one among hundreds other guests. Secondly, web-based booking has made it necessary for new tech savvy talent, to be recruited at the expense of the erstwhile preferred extrovert tourism executive. The more labor intensive door to door marketing is being rapidly replaced by e-marketing.

As noted earlier, Facebook and Instagram are SA's social media platforms of choice. In our view, since Facebook keeps innovating and giving the user a better experience, it gives hotel brands the opportunity to be innovative as they promote their products and services. Instagram, on the other hand allows smaller and medium sized hotel brands to reach their audience in an easy to find and segmented way. Indeed, Instagram makes it much easier through hashtagging and suggested content based on what an individual already likes and follows. Hotel can also partner with users who have several followers and influence on social media to market their services. With entrenched mobile social apps, in our view, app advertising offers a great opportunity to hotels in SA. We also believe that a hotels' social media marketing strategy is also going to depend largely on the age and living standards of its target market. For instance, if a hotel is catering to Generation X, it will want to focus its efforts on the 'oldies but goodies' like Facebook. However, if a hotel wants to hit the Millennials where it counts, then it has to go for Twitter and Instagram.

Many hotels in Kenya are increasingly accepting payment for their services by M-PESA. Sarova Hotels for example, claim that it is the first hotel chain globally to implement mobile commerce into its operations. The M-PESA option gives guests the flexibility of settling their bills. According to Safaricom, M-PESA brings the benefit of secure, real-time transactions to the hotel industry. This platform offers valuable convenience to customers in the process of booking and paying for their hotel services.

Challenges of the FIR dimensions

South Africans and Kenyans have an appetite for games. In SA, for instance, games dominate the top ten lists for highest grossing apps (World Wide Worx & Fuseware, 2016). In our opinion, these statistics may be good for Facebook but bad for employers. Firstly, apart from the question of productivity of employees that use Facebook during office hours, there is the issue of the associated costs on infrastructure (du Toit, 2017). The second concern is the reputation of the business, or employees, as a result of the information published on these sites. The spontaneous and unpredictable aspect of social media represents a real challenge for hoteliers.

Conclusions

In our view, a unique mix of high mobile phone penetration, fast mobile internet, mobile money transfer, and pervasive social media use provides hotels in SA and Kenya with opportunities for investment. The operations of hotels in SA and Kenya are being disrupted by online marketing agencies and web-based bookings. The spontaneous and unpredictable aspect of social media represents a real challenge for hoteliers. In addition, there is the question of the productivity of employees that access social networking sites during office hours, as well as the associated costs on infrastructure.

Acknowledgement

This study has benefitted from financial support from The German Academic Exchange Program (DAAD). We would also like to thank School of Tourism and Hospitality (UJ) and The Technical University of Kenya.

References

Akamai. (2016). *State of the internet: Q4 2016 report*. Akamai Technologies, Inc. Retrieved 17 November 2017 from https://www.akamai.com/us/en/multimedia/documents/state-of-the-internet/q4-2016 state-of-the-internet-connectivity-report.pdf.

Communications Authority of Kenya. (2017). *Fourth quarter sector statistics report for the financial year 2016/2017*. Communications Authority of Kenya. Retrieved 2 November 2017 from file:///C:/Users/user/Desktop/Industry%204.0/Sector%20Statistics%20Report%20Q4%%202016-17.pdf.

du Toit, J. (2017). *Social media: guidelines on the policy for employees using social media for non-business purposes*. The South African Labour Guide. Retrieved 2 November 2017 from http://www.labourguide.co.za/most-recent/1358-social-media-guidelines-on-the-policy for-employees-using-social-media-for-non-business-purposes.

GSM Intelligence. (2017). *The mobile economy Sub-Saharan Africa 2017*. GSM Association. Retrieved 14 November 2017 from https://www.gsmaintelligence.com/research/?file=7bf3592e6d750144e58d9dcfac6adfa&download.

Internet World Stats. (2017). *Usage and population statistics*. Retrieved 7 November 2017 from http://www.internetworldstats.com/stats.htm.

Kenya National Bureau of Statistics [KNBS] (2016). *Economic survey 2016*. Kenya National Bureau of Statistics. Retrieved 1 November 2017 from file:///C:/Users/user/Desktop/Industry%204.0/knbs-kenya-economic-survey2016.pdf.

Pew Research Center. (2017). *Mobile fact sheet*. Retrieved 1 November 2017 from http://www.pewinternet.org/fact-sheet/mobile.

Praekelt Foundation. (2012). *Spotlight on Africa - mobile statistics & facts 2012*. Retrieved 16 November 2017 from http://blog.praekeltfoundation.org/post/27754141777/spotlight-on-africa-mobile-statistics-facts.

Schwab, K. (2016). *The fourth industrial revolution: what it means, how to respond*. World Economic Forum. Retrieved 21 October 2017 from https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution what-it-means-and-how-to-respond/.

South Africa Tourism Annual Report (2016/2017). *South African Tourism*. Retrieved 2 November 2017 from file:///C:/Users/user/Desktop/Industry%204.0/SA%20arrivals%202016.pdf.

van Zyl, G. (2016). *Why Vodacom M-PESA has flopped in SA*. Fin24. Retrieved 2 November 2017 from https://www.fin24.com/Tech/Companies/why-vodacom-M-PESA-has-flopped-in-sa20160509.

Wangalwa, E. (2014). *Kenya leads Africa's internet access and connectivity*. CNBCAFRICA. Retrieved 27 October 2017 from https://www.cnbcafrica.com/news/east-africa/2014/09/09/kenya-leads-internet/.

Wanja, M. (2017). Self-catering units a hit at the Coast. *Life and Style - Daily Nation*. Retrieved 21 October 2017 from http://www.nation.co.ke/lifestyle/dn2/Selfcatering-units-a-hit-at-the-Coast/9578604165978-ou5ghn/index.html.

World Wide Worx & Fuseware (2016). *South Africa Social Media Landscape (2016)*. Retrieved 2 November 2017 from http://worldwideworx.com/wp-content/uploads/2016/02/SA-Social-Media-Landscape2016-Executive-summary.pdf.

Received: 20/11/2017
Accepted: 20/07/2018