

TINA ODINAKACHI IIRMDUa,b, RONNIE DONALDSONC

Tourism Businesses Management Practices in the Plateau State, Nigeria, during the 'New Normal': A Chaos Theory Approach

Abstract. Due to the COVID-19 pandemic businesses in the travel and tourism industry were pushed to the edge of chaos and bifurcation and restrictions resulted in unprecedented and far-reaching impacts. Using a qualitative method, chaos theory is applied to investigate 24 tourism business managers in Plateau State in Nigeria on the business management practices employed for their businesses to promote tourism activities following the post-pandemic reopening of tourism businesses. Results reveal that most of the tourism businesses survived the pandemic with businesses gradually 'bouncing back' due to human resources and the overhauling of business operations. Bifurcation caused tourism businesses to be on paths that led to their closure (destruction), while some gained new market segments thanks to reorganization to reach self-organization facilitated by strange attractors. The incorporation of chaos theory in business management practices during the pandemic further confirms that crises are complex and unpredictable.

Keywords: tourism, business management practices, new normal, chaos theory, Plateau State

Introduction

The tourism industry is predisposed to external forces and crises ranging from infectious diseases to social events (Ritchie, 2004). Although the world's tourism system has, over the years, enjoyed relative stability, this steadiness can be disrupted without warning (Ritchie, 2004; Speakman & Sharpley, 2012; Boukas & Ziakas, 2014). In the recent past, and even now, the world has been plagued by crises and disasters so that nations around the globe are grappling with the challenges these incidents present to the tourism industry. The global tourism

^a Department of Geography and Environmental Studies, Stellenbosch University, Stellenbosch, South Africa

^b Department of Geography and Planning, University of Jos, Nigeria, iirmdut@sun.ac.za

^c Department of Geography and Environmental Studies, Stellenbosch University, Stellenbosch, South Africa, rdonaldson@sun.ac.za

industry is susceptible to a growing diversity of events like earthquakes, floods and hurricanes, social and political instability, oil crises, wars, financial and economic crises, terrorism as well as outbreaks of contagious diseases characterized by pandemics and loss of life (Kim, Chun & Lee, 2005; Mansfeld, 2006; Rosselló, Becken & Santana-Gallego, 2020).

The tourism literature has reported on a wide range of crisis events such as hurricanes (Higgins, 2005), flooding and tsunamis (Cheung & Law, 2006; Calgaro & Lloyd, 2008), earthquakes (Huang & Min, 2002), volcanic eruptions (Carlino, Somma & Mayberry, 2008), bush fires (Armstrong & Ritchie, 2008) and cultural conflicts (Su, Lin & Liu, 2012; Yang, Ryan & Zhang, 2013; Ye, Zhang & Yuen, 2013; Malikhao, 2017; Tsaur, Yens & Teng, 2018). Other tourism related studies have looked at other events such as outbreaks of foot-and-mouth disease (Keeling et al., 2003; Rodway-Dyer & Shaw, 2005), severe acute respiratory syndrome (SARS) (Brug et al., 2004; McKercher & Chon, 2004; Cooper, 2005; Au, Ramasamy & Yeung, 2005; Colizza et al., 2007), zika virus (Gray & Mishtal, 2019), Ebola (Sifolo & Sifolo, 2015; Maphanga & Henama, 2019) and, currently the SARS-COV-2 virus (COVID-19) (Cori et al., 2020; Dube, Nhamo & Chikodzi, 2020). These events have created tensions that impacted tourism businesses and the COVID-19 pandemic created transformations in the tourism industry and the world order. This transformation can be viewed as "an evolving chaotic ordering from a chaos theory perspective" (Boukas & Ziakas, 2014, p. 192). The chaotic transformations in the tourism system led to a new order due to the pandemic with massive losses of jobs in the tourism industry.

It has been estimated that the COVID-19 pandemic has removed over 50 million jobs globally and USD 2.1 trillion in tourism business revenues thus posing serious humanitarian challenges to regions and countries worldwide (UNWTO, 2020). African countries had by March 2020 lost USD 4.4 billion in revenue with the refunds of airline tickets increasing by 75% in comparison with 2019. Nigeria lost about 2.2 million overseas-bound passengers and revenue of USD 434 million as the coronavirus spread continued to escalate (Oyebade, 2020). This decline in revenue and passengers are the aftermath effects of unexpected events (Drakos & Kutan, 2003; Richards, 2007; Kapuscinski, 2014; Adeloye & Brown, 2018). For instance, Nguyen & Imamura (2017) and Ichinosawa (2006) opined that crisis events such as terrorism, conflicts and pandemics change tourists' behaviour towards a destination. This causes shifts in demand that affect the economy of destinations and tourism businesses.

The experiences of tourism business managers especially during and after a health pandemic can be explained using the chaos theory. For this paper, tourism business managers include hired managers and owners of tourism businesses managing their businesses themselves. The tourism businesses considered are specifically restaurants, hotels and tourist attractions. The aim of this paper is to use chaos theory to highlight the business management practices employed by tourism businesses in Plateau State during the COVID-19 pandemic following the post-pandemic reopening of tourism businesses in Plateau State, Nigeria.

COVID-19 and Tourism Research in Africa

The year 2020 witnessed the global emergence of the novel coronavirus (COVID-19) which is an entirely new threat described as a 'black swan' (Adam & Kimbu, 2020; Zenker & Kock, 2020). No crisis in recent history has imposed the intensity and global-scale impact of the COVID-19 pandemic (Beirman, 2021). The pandemic's debilitating impacts on the survival and functionality of the tourism industry are crucially affecting the vital contributions by the sector that is undergoing an overhaul of operations (Rogerson & Rogerson, 2021; Visser & Marais, 2021). A 'tsunami' of research has been undertaken so far in Africa on the pandemic (Persson-Fischer & Liu, 2021; Rogerson & Rogerson, 2021) findings of "which is changing African tourism and the directions of African tourism research" (Rogerson & Rogerson, 2021, p. 1027).

Across Africa, "various perspectives have been applied to investigate the impacts of the COVID-19 pandemic on tourism and hospitality" (Visser & Marais, 2021, p. 1685). Exploratory studies have been carried out on governments responses and policies during the pandemic and how the lack of such policies impacted on tourism (Nyawo, 2020; Mensah & Boakye, 2021). The responses by governments to the pandemic in Africa remained problematic due to policy responses devoid of local and national realities (Ezeh & Fonn, 2020). In Nigeria, these policies put strain on the operations and revenue generation and deprived ecotourism and leisure related nature tourism businesses of their patrons (Bello & Bello, 2021). Undoubtedly, this led to a massive sale of tourism and hospitality business facilities due to bankruptcy "worsened by poor government support and weak business recovery policy for hospitality business owners" (Bello & Bello, 2021, p. 424).

Tourism in Africa is one of the most important and fastest developing economic industry, with certain protected areas and many local populations strongly reliant on tourism and the benefits it provides. However, the COVID-19 pandemic adversely impacted these local and marginalized communities across the African continent (Dube, 2021). Consequently, the impact in Botswana was typified as "a socio-economic and ecological emergency" (Hambira, Stone & Pagiwa, 2021,

p. 1). In South Africa, small and medium enterprises in the tourism sector suffered severe economic losses from the COVID-19 shock (Rogerson & Rogerson, 2020; Booyens et al., 2022). Rogerson and Rogerson (2022) found that there was a notable change in the spatial pattern of tourism during 2020. The trend to concentrate tourism development in the South Africa's major cities appeared to have been halted and reversed by the impact of COVID-19. In addition to this, evidence document that Safari and wildlife tourism were brought to a standstill (Dube, 2021; Visser & Marais, 2021). Tourism suffered devastating impacts along with communities involved in conservation and management of natural tourism resources accompanied by losses in income and employment (Nyaruwata & Mbasera, 2021; Visser & Marais, 2021). More so, most iconic tourism attractions in Africa were shut down as the "deserted pyramids of Egypt lit up at night messaging people to 'stay home, stay safe', motionless cable cars at Cape Town's table mountain, the cessation of tours along Ghana's forts and castles as well as empty safari lodges across several countries in Eastern and Southern Africa are powerful symbols of COVID-19 ravages" on the economy of countries of Africa (Rogerson & Baum, 2020, p. 728).

Tourism in Africa faced revenue losses and a slow recovery for tourism businesses and their workforce (Fletcher et al., 2020). Admittedly, these lost revenues are "specifically due to governments making decisions that undermined two essential components of the tourism industry: the mobility to travel, and social interactions between tourists and the host populations" (Visser & Marais, 2021, p. 1686). Technology and digital transformation are a recovery route for tourism in Africa (Masaki, John & Abel, 2021; Musango & Rusibana, 2021). In Zimbabwe and Ghana, virtual tourism, ecotourism and domestic tourism have been explored as alternative means to contribute to sustainability (Chirisa et al., 2020; Soliku et al., 2021). Coping strategies and adaptive responses emerged from Ghana and South Africa (Dayour et al., 2020; Giddy & Rogerson, 2021; Rogerson, 2021; Bandoh et al., 2022) whereas a shift in mobility patterns in Africa from larger travel groups to smaller groups to reduce the risk of infection is also reported in the literature (Giddy & Rogerson, 2021; Nair & Mohanty, 2021).

Although the future of tourism research is unpredictable, however, "tourism related themes in an African context will clearly require a major reset and recalibration in the post-covid era" (Rogerson & Baum, 2020, p. 733). This transformation follows that there should be a "considerable value for African scholars to learn lessons from past experience and undertake historical tourism research studies which might resonate with contemporary debate" (Rogerson & Rogerson, 2021, p. 1029).

Chaos Theory: Order out of Disorder ('New Normal')

Events causing chaos continue to affect tourism destinations (Rindrasih et al., 2019; Aldao et al., 2021; Park, Kim & Kim, 2022). Chaos factually "implies a complete lack of order" (McKercher, 1999, p. 428). However, in the context of tourism, chaos occurs when "a system is dislodged from its steady condition by a triggering event that is as random and unpredictable as the outcome" (Russell & Faulkner, 2004, p. 557). Chaotic and extremely complex systems such as the tourism industry can be studied constructively using the chaos theory (Russell & Faulkner, 1999; Sellnow, Seeger & Ulmer, 2002; Zahra & Ryan, 2007; Speakman & Sharpley, 2012). Russell (2006, p. 110) suggests that "chaos theory reflects the change-proneness, the dynamism, and the self-healing properties of living organisms. Chaos theory and "numerous instances of recent events have demonstrated that, if anything, the only certainty about the future is that the unexpected will happen" (Faulkner & Valeiro, 1995, p. 33). Chaos theory explains non-linear complex systems (McKercher, 1999; Russell & Faulkner, 1999) and it recognizes "the random, complex, unpredictable and dynamic nature of systems" (Speakman & Sharpley, 2012, p. 68). There is agreement that chaos theory provides an insightful paradigm for investigating the changing situations that influence a non-equilibrium system and it focuses on changes that accumulate over time and that accelerate alterations in the system (Scott, Laws & Prideaux, 2008).

The butterfly effect of chaos theory described by McKercher as sensitive dependence on initial conditions (SDIC) explains how significant developments may lead to profound chain reactions that can alter or shift the system structure (McKercher, 1999). Similarly, Russell (2006) observed that tiny alterations come suddenly and can produce large catastrophic outcomes. The inability to adequately measure the impact of the disaster further complicates the situation, as single events can lead to chain changes at destination locations (Boukas & Ziakas, 2014). For example, the COVID-19 pandemic started in Wuhan, China, and spread to over 200 countries. The reaction is that it altered the tourism system and impacted tourism businesses because of the lockdown. In the tourism context, the COVID-19 is the butterfly effect that grew exponentially (McKercher, 1999) and disrupted global systems because of the travel restrictions and ban on social gatherings bringing about new protocols and guidelines referred to as 'new normal' (Ozili & Arun, 2020).

Furthermore, the lock-in effect explains how, in chaotic systems, certain past innovations that have been inherited can have a lasting effect even though the initial response has become expendable (McKercher, 1999; Russell & Faulkner, 2004; Speakman & Sharpley, 2012). As observed by McKercher (1999, p. 429) this

justifies "why accidents of history are still current today." Implying that certain incidents of the past may still be useful today. This explains why the same non-pharmaceutical interventions (NPIS) that were used during the SARS crisis were also implemented in the COVID-19 pandemic (WHO, 2003; WHO, 2020). In the context of tourism, tourists repetitive behavioural pattern describes the impact of the lockin effect which McKercher describes as 'brand loyalty' or 'our family has always gone there'. This explains "why some destinations still retain a level of appeal that would normally not be warranted" (McKercher, 1999, p. 429). This attraction or familiarity gained through previous visits influences long-term relationships that inspire repeat visits (McKercher, 1999; Tsai, 2012). Experiences of the past shapes tourists' image about a destination and improves destination image for tourists (De Nisco et al., 2015). The lock-in effect of past experiences can therefore be an important determinant of crisis management.

According to Speakman & Sharpley (2012, p. 70) "a system is always on the edge of chaos when a trigger event may directly or indirectly induce a crisis." This may be due to the existence of the possibility of system disruption despite the stability in time past. In a bid to control the uncontrollable, organizations are faced with the threat of losing control which can be frightening for the organization (McKercher, 1999). However, chaos recognizes that the frightening period of instability of the system is necessary for further change to occur in complex systems (Boukas & Ziakas, 2014). Scholars argue that instability is intrinsic to complex systems and stability can be disrupted unexpectedly (McKercher, 1999; Speakman & Sharply, 2012). Hence, systems must be ready for radical changes once they reach the point of tenuous equilibrium (steadiness) (Russell & Faulkner, 2004; Russell, 2006). This stage is the edge of chaos where dynamic complex systems evolve towards the edge of chaos taking up extreme changes to return to normal.

Bifurcation is a critical point where changes that emerge in response to a chaotic environment can lead to a breakdown or a breakthrough in a system (Paraskevas, 2006). Sellnow, Seeger & Ulmer (2002, p. 271) describes bifurcation as "the flashpoints of change where a system's direction, character, and/or structure are fundamentally disrupted." This implies that bifurcation is the point of unexpected system stability breakdown or breakthrough. Sellnow, Seeger & Ulmer (2002) further argue that all intricate systems have the potential for bifurcation despite the appearance of stability and order. During the COVID-19 pandemic most tourism businesses got to the point of breaking down or breaking through due to the impact of the pandemic.

Systems are thrown into chaos and disequilibrium like Faulkner's emergency phase of the disaster life cycle and no organization is completely insulated from crises (Faulkner, 2001). Unexpected events (UES) can leave tourism systems irreparably

damaged. Conversely, a system can emerge stronger if the system responds to the corresponding changes. The quick response by global, regional, national tourism organizations, tourists and stakeholders determines the bifurcation of the tourism system (Speakman & Sharpley, 2012). Turbulences in the tourism system are not predictable, however these turbulences allow the system to re-emerge into a more competitive system. Self-organization is a consequence of bifurcation where order and new stability emerge from a random and chaotic phase (Sellnow, Seeger & Ulmer, 2002). Sellnow, Seeger & Ulmer (2002) posits that the relationship between chaos and order is complex and dynamic. Despite the chaos, tourism operates with some order for the achievement of a new stable and adaptive system (McKercher, 1999). For example, during a crisis, information dissemination is co-ordinated and information can be assessed on daily basis. In a complex tourism industry tour organizers and managers of hotels, restaurants and tourist attractions can self-organize to satisfy the needs of customers (McKercher, 1999). Additionally, managers can prepare, train and equip workers to handle the challenges of initial conditions teaching them to 'organize the chaos' (McKercher, 1999; Lemonakis & Zairis, 2019).

Sellnow, Seeger & Ulmer (2002, p. 272) observed that "through self-organization, new forms, structures, procedures, hierarchies and understanding emerge, giving a new form to the system, often at a higher level of order and complexity." Self-organization changes the goals, activities, resource layout and directions of the system. Lemonakis & Zairis (2019) agree that self-organization leads to significant improvements in efficiency, upgrade of human resources, improves performance and increases the value of the system. They maintain that for an organization to self-organize, assessing the current state of the business must be through identifying the self-organization goals and preparing the work plan. The implementation of the work plan and evaluation of the results helps in successfully repositioning the system through the self-organization process (Lemonakis & Zairis, 2019).

Study Area and Methods

The spatial scope of this study is limited to the Jos North local government area (JNLGA) and the Jos South local government area (JSLGA) in Plateau State, Nigeria (Figure 1). These two LGAs were selected for study owing to their being home to well-established, developed and properly managed tourism businesses (hotels, guest houses and restaurants) and physical tourism attractions such as the Kurra falls, Assop Falls, Riyom rock formation, Solomon Lar amusement park, Rayfield holiday resort and the Jos Museum complex.

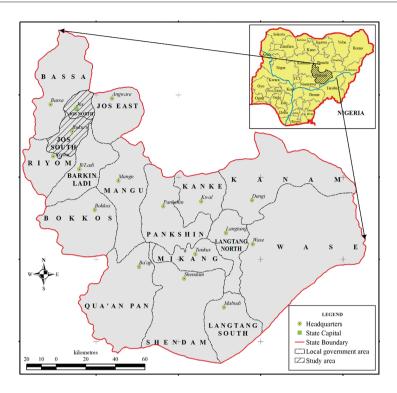


Figure 1: Plateau State, Nigeria, showing the study areas, Jos North and Jos South local government areas Source: Compiled in 2021 by the GIS Lab, Department of Geography and Planning, University of Jos, Nigeria

Purposive sampling of the most popular hotels, guest houses, tourist attractions and restaurants was used to choose the tourism business managers (TBMs) for interviews. The sample frame was used to choose a stratified random sample of 24 tourism accommodations (hotels and guesthouses), 10 restaurants and 10 tourist attractions in the study area. Interviews were performed with the managers who agreed to participate. Face-to-face interviews were conducted to determine the meanings, behaviors, situations, and perspectives of participants (Neuman, 2003). Participants were requested to sign a written informed consent form after giving their approval and assent. Interviewing was used because it allowed the interviewers to provide clarification to the respondents and obtain personal replies that would not have been feasible with a questionnaire survey. Interviewing also allowed the researchers to delve deeper into the responses of participants. This is critical for gathering pertinent information that may not have been considered or fully considered. Face-to-face interviews with consenting TBMs were undertaken to determine their roles in influencing tourism promotion in Plateau State.

The size of the sample was based on previous qualitative tourism and hospitality studies in which samples ranged from 14 to over 30 interview participants (Yap & Ineson, 2009; Phelan, 2015; Kaushal & Srivastava, 2021). In this study the 44 TBMs originally approached for participation were reduced to 24 consenting participants. Face-to-face and telephone interviews were carried out at the time of the first contact, at the option of the participants. Eighteen interviews were conducted face-to-face while six were conducted telephonically. A semi-structured face-to-face interview lasting about 50 minutes was conducted with each participant and detailed notes were taken by the researchers and the conversations were audio-taped for verbatim transcription. The telephone interview lasting about 40 minutes was conducted with each participant and the conversations were recorded for verbatim transcription. The style of questioning was formal to elicit information from the participants' perceptions and experiences during the COVID-19 pandemic. Protocol of ethics of confidentiality and anonymity was followed. The information obtained from the interviews was later subjected to thematic analysis, findings of which are reported in turn.

Business Management Practices

The business management practices put in place to manage a business during a natural disaster, terrorism, conflicts, non-natural events or a financial crisis play vital roles in the continuity of a business (McKercher & Chon, 2004; Au, Ramasamy & Yeung, 2005; Cooper, 2005; Higgins, 2005; Rodway-Dyer & Shaw, 2005; Cheung & Law, 2006; Armstrong & Ritchie, 2008; Calgaro & Lloyd, 2008; Carlino, Somma & Mayberry, 2008; Su, Lin & Liu, 2012; Yang, Ryan & Zhang, 2013; Ye, Zhang & Yuen, 2013; Malikhao, 2017; Tsaur, Yens & Teng, 2018; Gray & Mishtal, 2019; Maphanga & Henama, 2019). Crises and disasters affect the current and future performance of most tourism businesses. Cook (2015) found that 75% of businesses without sustainability or continuity plans fail within three years after a crisis or disaster. Aside from the lack of sustainability plans, factors like loss of income due to absence of workers and declines in cash reserves continue to impact businesses due to the COVID-19 pandemic (Fabeil, Pazim & Langgat, 2020a). Business management practices work well with a business survival strategy. This position is supported by authors who call attention to the importance of a survival strategy for organizations during a crisis (Fabeil, Pazim & Langgat, 2020b) who call attention to the importance of a survival strategy for organizations during a crisis.

The interviews revealed that many business managers began to diversify and shift to alternative business management practices to continue operating and sus-

Maintenance

taining their businesses. Table 1 summarizes the business management themes and practices that were identified in the study.

Theme Practice

Strange attractors Providing multiple promotions

Self-organization Overhauling of human resources and the business operations

Government intervention Getting tax holiday and government intervention fund

Lock-in effect Quality and good manager-customer mutual relationships

Table 1: Emerged themes of business management practices identified by the interviewed business managers

through cost cuts by limiting services

Source: Field survey, 2021

Rendering tailored products and services

Developing maintenance plans for strategic cost reductions

Five themes emerged during the interviews with participants about the business management practices employed by businesses during the pandemic namely strange attractors, self-organization, government interventions, lock-in effect and maintenance practices. These practices are described in turn in the following five subsections. To preserve the anonymity of the participants in the descriptions, they are referred to by participant numbers, for example P1, P21 and P8.

Strange Attractors

The concept of the strange attractor in chaos theory points to techniques that can be used during a crisis to encourage order from chaos (Speakman & Sharpley, 2012). The use of various strange attractors by tourism business managers is an indication that stability can be brought to a chaotic situation by facilitating methods that will help the tourism industry work in unison towards achieving its common goals (Zahra & Ryan, 2007). Various promotion strategies were introduced. While some managers reduced their promotional costs, others saw the crisis as an opportunity to explore new segments. A participant described it as an opportunity "to market tourism products and services to domestic tourists with a major focus on the specific attributes of the location such as the beautiful scenery, unique weather of Jos, the waterfalls, hills and mountains" (P6). Another participant said that the pandemic expanded "our thinking faculty to play around with new products and food menu. We introduced specials such as the naman ridi (sesame seed or benniseed coated meat), fresh palm wine and dry fish pepper soup. This has become

a big bait for the surge in our big clients from the government reserved area [GRA]. We even receive orders for the naman ridi and the fresh palm wine from clients outside Jos" (P21).

The promotion of price drops on special offers and a reduction in list prices enhanced patronage as attested to by most of the respondents: "We lowered prices to compensate for the reduction in demand during the COVID-19 pandemic period, this in a way increased patronage" (P8). Promoting domestic tourism and encouraging Nigerians to travel within their own country, especially to Plateau State, all the interviewed managers affirmed that they began aggressive promotion of new products and services to new segments. There was a surge in conference tourism by non-governmental organizations (NGOS) and the corporate industries because the pandemic was not as great a threat in Plateau State as in Lagos State where most of the conferences were cancelled and rescheduled to be hosted in Jos.

One of the respondents affirmed that "we saw an explosion in the number of conferences that were moved from Lagos, Port Harcourt, Abuja and Warri to Jos. Plateau State in this period has become the centre of conference tourism" (P2). Confirming this, another respondent stated that "there was a sudden surge in our bookings and reservations for rooms and conference halls" (P4). Other strange attractors introduced are discounts, social media promotion of products, deliveries, airport pick-up shuttle services for clients arriving from outside Jos, and the adoption of cash on delivery (COD) which hitherto was not available to clients. These stimulated the domestic market with offers that exploited the lock-in effect.

Self-Organization

A major component of chaos theory is the ability of tourism businesses that have gone through a chaotic event to self-organize into "communicative structures and relationships, understandings and procedure" (Sellnow, Seeger & Ulmer, 2002, p. 274). Plateau State is known as the *Home of peace and tourism* that houses diverse and complex tourism sectors. The study found that most of the tourism businesses have survived the pandemic with businesses gradually 'bouncing back' thanks to human resources and the overhauling of business operations. This did, however, create some problems that involved workers being laid off to reduce the size of the labour force, using unpaid leave, rotating workers per week, reducing salaries (salary cuts) and reducing the number of workdays per week. Providing multiple responses, Figure 2 highlights some of the problems reported by the respondents.

Confirming that tourism businesses faced some challenges, a respondent stated that "we had to reduce overhead costs, put all investment on hold, reduce workers by 70% and reduce salaries by 50% as our monthly income drastically fell from N20 million to N2 million" (P12). Some respondents had to put up their businesses for sale while others resorted to partial business operations. The accommodation sector suffered the major brunt of the problems. A similar scenario with the case in South Africa (Rogerson & Rogerson, 2020).

The PSTC (Plateau State Tourism Corporation) initiated a 'tourism rescue plan' "which acted as a strange attractor in a way and as a means of harnessing a common vision, sense of meaning, strategy, or value system that drives people to achieve a common goal" (Zahra & Ryan, 2007, p. 855). In a bid to keep businesses and workspaces safe for employers and employees during the pandemic, the Plateau State government (PSG) also organized risk management training for tourism business managers. Forty-five per cent of the interviewed managers attended the course while the remaining managers did not attend. Those who had not attended and all those who had attended confirmed their eagerness to attend any future training seminars and workshops on the COVID-19 health crisis and its impacts on tourism businesses. Eighty-three per cent businesses that did not have any plans for contactless transactions and payment options were considering the option to keep in line with the physical and social distancing prescriptions to minimize human contacts.

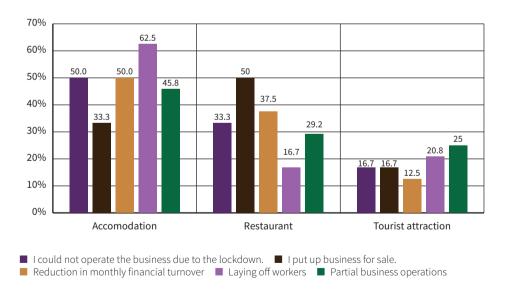


Figure 2: Problems faced by tourism businesses Source: Field survey, 2021

Self-organization is vital in addressing an extremely disorderly occurrence like the pandemic which affects the dynamism and complexities in the tourism system where activities are inextricably linked (Sellnow, Seeger & Ulmer, 2002). Tourism managers create and implement specific contingency plans with protocols for the entire organization as effective crisis management practices to salvage their businesses. Studies have shown that in crisis management practices employees can also self-organize to handle any crises impacting tourism businesses (Israeli, Mohsin & Kumar, 2011; Hao, Xiao & Chon, 2020). This study identified certain human resources measures that were put in place by tourism business managers, namely training programmes to ensure employees' and clients' safety and security; improved communication channels; and an emergency communication network that was open for employees to stay informed during the pandemic. This is consistent with other research findings (Hao, Xiao & Chon, 2020; Garrido-Moreno, Garcia-Morales & Marin-Rojas, 2021) and they offer managers a framework to react appropriately to crises (Speakman & Sharpley, 2012).

Government Interventions

Despite the enormous potential of the tourism industry in developing countries, the sector can suffer internal and external shocks and governments can wade in to salvage the industry. For example, De Sausmarez (2004, p. 168) suggests that government measures during a crisis may include "incentives to stimulate foreign investment, tax relief and extended credit to tourism businesses, increased funding to national tourism organizations, and the stimulation of domestic tourism in the absence of international visitors."

Three out of four interviewees reported having asked the government for a grace period on tax payment, tax holidays or cancellation of taxes during the lockdown period as there was no steady income as usual. The remaining 25% did not ask for grace periods on tax payments because their businesses were not affected as they offered essential services during this period. Four out of five respondents requested a grace period on local government tax payments. Only nine (37%) managers or owners had benefited from the government intervention fund. The application procedure to apply for the recovery funding was available online on a designated federal government website where basic credentials of the business had to be inputted, including bank details of the business and contact telephone number. Although the respondents complained about the prolonged delays in receiving funds, the few tourism business managers who received the funds injected

these back into their businesses, principally to pay workers' salaries. In April 2021 a respondent (P21) pointed out the low rate of government intervention through the fund:

There was a sort of government intervention and funding tagged 'COVID-19 relief fund' for businesses. I can confirm that it is not all tourism businesses that were helped but only selected businesses received the funds. I have called my fellow managers that I know asking them if they received the fund. So far, all the responses have been negative.

Although the Nigerian government rolled out a COVID-19 intervention programme, it was adjudged by most of the respondents to be lopsided in favour of government-owned businesses. This contrasted with the situation in other parts of the world as reported in the literature where private businesses received bailout funds. According to respondent P7:

The government acknowledged that businesses needed interventions and asked managers to compile a list of 10 workers to receive palliative (salary or wage) from the government. The selection of beneficiaries was done selectively and haphazardly. Up till today, none of the staff here received anything after submitting their information online on the government portal.

The answers given by most (58%) of the interviewees confirmed that the Nigerian government's intervention was for selected households, while 42% confirmed that the intervention mainly entailed a wage subsidy for selected businesses for their employees. This is consistent with the verdict by Edokwe (2021) that the move was aimed to enrich a few and curry favour going into the 2023 election year. Respondent P23 argued in June 2021 that:

We have not received any government assistance during this COVID-19 pandemic. Of all the names and bank information of 10 employees the government asked us to send, up till today I am having this conversation with you, not even one person has received any cash transfer or alert. This government can make fake promises. This N5000 monthly cash transfer I heard they said they are doing, is far less than the current poverty line of N11 450 (USD 28) per month, which is not even enough to ensure a decent standard of living anywhere in Nigeria. They just do not care about the masses, raising our hopes in this difficult time. This is far from what is happening in other parts of the world.

According to respondent P24:

I do not know where Nigeria is heading to. There are a lot of injustices in the system. There are no rights to common food which we are producing. There is even no right to life as insecurity has gone over the roof. There is no adequate standard of living. The cost of living and doing business in Nigeria is so high. Compared to 2015, the inflation rate was 9%, this year 2021 it is 18.12%. The unemployment rate was 8.19% in 2015, in 2021 it is 33.28% while the GDP growth rate was 2.79% in 2015, in 2021 it is 0.51%. I am a businessman I follow the trends and these key indicators to help me plan (Interview in May 2021).

The continued echoing of the threats to life and security by the respondents in the tourism industry in Plateau State in particular but also in Nigeria generally, amplify the already dire situation in which the tourism industry is languishing.

Lock-in Effect (Brand Loyalty)

Lock-in effects are activated by the strange attractors that bring and retain customers as a driving force for competition. "Repeat purchases or recommendations to other people are mostly referred to as consumer loyalty" (Yoon & Uysal, 2005, p. 48). Brand loyalty is characterized by behavioural or attitudinal loyalty with a sequence of customers' repeat purchases, the proportion of patronage or the probability of purchase with a form of commitment or statement of preference (Yoon & Uysal, 2005; Pike et al., 2021; Stavrianea & Kamenidou, 2021). This commitment is enhanced by "developing a mutually beneficial relationship between the businesses and customers" (Chen & Gursory, 2001, p. 80).

Confirming Chen & Gursory's (2001) statement, interviewee P4 stated that their businesses thrived based on quality and mutual benefit. Another manager (P11) asserted that they treated customers importantly and therefore have very loyal customers with positive attitudes towards their businesses who will always patronize them despite the circumstances. Corroborating good manager-customer mutual relationships, respondent P8 stated that "our customer services and relational experiences keep bringing back our customers for revisits, not just the facilities alone."

Return visits, enhanced by quality offerings, increase patronage as "quality is a determining factor for brand loyalty" (P17). In order not to miss the quality they received from the business, some managers revealed that their loyal customers were the ones who gave them the option of product delivery. Consequently, some of the interviewed managers at restaurants started food delivery during lockdown. The study found that a way of appreciating loyal customers and sustaining brand loyalty was for managers to gather information about the preferences of

their loyal customers and then use the information to win customers' loyalty by rendering tailored products and services. This is consistent with research findings by Chen & Gursory (2001), Kusdibyo (2021), Li, Liu & Soutar (2021) and Pike et al. (2021).

To maintain business appeal, customers were given 'loyalty rewards' of onenight free hotel accommodation on their next visit (this varied among respondents as some made it a two-night giveaway); free entrance tickets at tourist sites were made available to customers who presented receipts for at least three past visits within the month; and free meals were offered at restaurants to customers who had eat-ins or take-aways or deliveries five times within a specified period.

Such offers encouraged the habit of keeping receipts where most customers were tended to discard their receipts after the purchase of products and services. The introduction of these strange attractors and the lock-in effect impacted the patronage by customers positively as attested to by respondent P4:

We witnessed a surge in bookings due to these loyalty rewards the management introduced. You know, a lot of people like freebies especially now that many Nigerians are suffering a reduction in cash flow and purchasing power. The clients are happy with the development and they feel valued for rewarding their loyalty. This way, we are sure that our clients will remain indebted to us (Interview in June 2021).

The lock-in effect introduced in the form of brand loyalty for customers during the pandemic is emphasized in the literature regarding that which brings and retains customers in the tourism business, especially during a pandemic. This is also consistent with the global trend as a means of sustenance for businesses.

Maintenance

Facilities are integral parts of the tourism industry that promote tourism development by increasing the attractiveness and competitiveness of tourism businesses (Mandić, Mrnjavac & Kordić, 2018). These facilities are amenities that help make tourism products enjoyable, reliable and sustainable (Khadaroo & Seetanah, 2007). The maintenance of these tourism facilities and infrastructures is important for businesses to thrive and compete because maintenance is a key to business prosperity and economic growth. Maintenance does not connote just maintaining production as it also requires minimizing maintenance costs and ensuring a safe environment (Khadaroo & Seetanah, 2007).

Consistent maintenance is vital to preserve the functionality of infrastructures and facilities and to ensure that they remain high-value assets for businesses (Abdullah, Razak & Jaafar, 2014). The lack of maintenance, on the other hand, can lead to deterioration or damage of facilities. Abdullah Razak & Jaafar (2014) point out that inadequate maintenance can cause premature deterioration of facilities. However, the interviews revealed that because of the economic impacts of the pandemic, most of the respondents did not continue with their 100% maintenance schemes but developed maintenance plans for strategic cost reductions. These included cost cuts by limiting services such as shortening the hours of using generators during load shedding and power outages, postponement of the physical maintenance of business buildings and postponing maintenance of the engineering systems of the businesses. According to respondent P1 this was "necessitated to cushion the financial burden and constraints on business operations" because "financial resource is a great constraint to effective maintenance of business facilities" as claimed by respondent P15.

Despite the reduction in maintenance due to financial constraints, respondent P11 contended that "there should be a revival of maintenance culture. Once business facilities are maintained regularly as at when due, then those facilities will be sustained. We should stop paying eye and lip services and singing 'maintenance culture' like a mantra, we need to mean it and act it." Tourism businesses have resorted to cutting extra costs on maintenance expenses to save money due to the uncertainty surrounding future lockdowns.

Since crises are inevitable and unpredictable, and business organizations not immune to potential crisis, businesses should expect the unexpected. All businesses are susceptible to a crisis, therefore crisis preparedness and decisions made during a crisis are crucially important to avoid what could be an irreparable downfall. Although decisions about business management practices during a crisis are described as complex because they are made quickly, the components of chaos theory can be infused into this complex decision-making process of what managers can do during a crisis. Through the application of strange attractors, tourism businesses quickly self-organized, became creative and searched for new brand stories to retain, market and attract new customers.

The government's role in mitigating the impacts of a crisis is vital in the business recovery process. The foregoing findings shed light on the business and crisis management practices instituted by tourism business managers and owners in Plateau State. These practices were put in place to increase long-term operational efficiency and competitiveness through innovative thinking aimed at business survival by ensuring safety and maintaining profitability during the pandemic.

Recommendations

During the COVID-19 crisis, tourism business management methods in Africa faced a number of challenges, including knowledge, financial, and organizational limits. Furthermore, limited technological application and development impedes the implementation of technology and innovation mechanisms to address Africa's crisis. During the pre-crisis period, we propose working on and developing these areas.

According to the findings of this study, many (75%) tourism businesses lacked proper crisis planning and readiness. Natural catastrophes, terrorist attacks, and health problems should all be included in crisis readiness and tourism preparedness. Extant literature focuses on individual crises situations rather than crisis management practices as a broader phenomena and area of concern. This gives an important overview of areas related to the pre-crisis period, such as tourism and travel sectors' readiness and preparedness, which leads to research fragmentation and limits our understanding of an integrated viewpoint of tourism crisis management research in Africa. Future research "should move away from identifying existing response practices and evaluating the effectiveness of alternative approaches identified in the literature" (Senbeto, 2022, p. 5).

Conclusion

This study found that the vast majority (92%) of tourism business managers employed self-rescue practices to confront the uncertainty of the impact of COVID-19. Management practices identified are lower operating costs, closure of certain facilities, flexible staff assignment or rotation, and halts to further investment. Tourism companies invested in promotion campaigns to attract new markets while creating a new set of weird attractors. These strange attractors were introduced by tourism business managers to keep their regular clients and to hopefully get new ones. The attractors are new products and services, loyalty and reward programmes, promotions, updated and improved channels for contacting, attracting and selling to customers, and digitized media channels. These strange attractors are consistent with those reported in the literature on what is happening in the tourism sector around the world (Israeli, Mohsin & Kumar, 2011; Hao, Xiao & Chon, 2020; Heredia-Colaco & Rodrigues, 2021).

Uncertainty surrounds business continuity. Existing literature confirms that the complex tourism industry can be thrown off balance by triggering butterfly effect events. Tourism systems have been found presently to be on distinctive ways compared to where they were some time recently before the COVID-19 pandemic. This study found that bifurcation caused tourism businesses to be on paths that led to their closure (destruction), while some gained new market segments thanks to reorganization to reach self-organization facilitated by strange attractors. Moreover, the incorporation of chaos theory in business management practices during the 'new normal' (COVID-19 pandemic) further confirmed that crises are complex and unpredictable as every crisis is unique and requires a dedicated approach to reach a new order and gain new stability as exemplified by the studied tourism businesses.

The effects of continuous crises may be less visible than the effects of one-time catastrophes. Understanding the effects and solutions to ongoing crises will transform crisis management into a more practical and day-to-day concern. Using chaos theory to strengthen the theoretical foundations will help to develop innovative viewpoints and insights into the existing literature. Chaos theory therefore provides a framework for identifying real-world, pertinent, and operative strategies for the sustenance of tourism businesses during a crisis, especially the COVID-19 pandemic.

Acknowledgment

The authors are grateful to the Nigerian Tertiary Education Trust Fund (TET-Fund) grant (TETF/ES/UNIV/PLATEAU STATE/TSAS/2019 VOL. 1) for supporting this research. The authors thank immensely the research participants in the survey for their voluntary participation. The contributions of the reviewers are also duly acknowledged.

References

- Abdullah, S., Razak, A.A., & Jaafar, M. (2014). Public tourism infrastructure: Challenges in the development and maintenance activities. SHS Web of Conferences, 12, 1–8.
- Adam, I., & Kimbu, A.N. (2020). Strategies Africa's tourism requires to manage blow from coronavirus. https://theconversation.com/strategies-africas-tourism-requires-to-manage-blow-from-coronavirus-135858
- Adeloye, D., & Brown, L. (2018). Terrorism and domestic tourist risk perceptions. *Journal of Tourism and Cultural Change*, 16(3), 217–233. https://doi.org/10.1080/14766825.2017.1304399
- Aldao, C., Blasco, D., Espallargas, P.M., & Rubio, P.S. (2021). Modelling the crisis management and impacts of 21st century disruptive events in tourism: The case of the COVID-19 pandemic. *Tour-ism Review*, 76(4), 929–941. http://dx.doi.org/10.1108/TR-07-2020-0297

- Armstrong, E.K., & Ritchie, B.W. (2008). The Heart Recovery Marketing Campaign: Destination recovery after a major bushfire in Australia's National Capital. *Journal of Travel & Tourism Marketing*, 23, 175–189. https://doi.org/10.1300/J073v23n02_14
- Au, A.K., Ramasamy, B., & Yeung, M.C. (2005). The effects of SARS on Hong Kong tourism industry: An empirical evaluation. *Asia Pacific Journal of Tourism Research*, 10, 85–95. https://doi.org/10.1080/1094166042000330236
- Bandoh, D.A., Odikro, M.A., Frimpong, J.A., Malm, K.L. Asiedu-Bekoe, F., & Kenu, E. (2022). Strategies adopted by Ghana during first and second waves of COVID-19 in Ghana. *Journal of Interventional Epidemiology and Public Health*, 4(3). https://doi.org/10.37432/jieph.supp.2022.5.1.04.3
- Beirman, D. (2021). *Tourism crisis management. Lessons for all businesses and how crisis management found me.* https://www.socialsciencespace.com/2021/08/tourisms-crisis-management-lessons-for-all-businesses-and-how-crisis-management-found-me/
- Bello, M.B., & Bello, Y.O. (2021). Consequences of COVID-19 pandemic on hospitality industry: The Nigeria experience. *International Journal of Research and Innovation in Social Science*, 5(1), 422–425. https://doi.org/10.47772/IJRISS.2021.5119
- Booyens, I., Rogerson, C.M., Rogerson, J.M., & Baum, T. (2022). Covid-19 crisis management responses of small tourism firms in South Africa. *Tourism Review International*, 26(1), 121–137. https://doi.org/10.3727/154427221X16245632411872
- Boukas, N., & Ziakas, V. (2014). A chaos theory perspective of destination crisis and sustainable tourism development in Islands: The case of Cyprus. *Tourism Planning and Development*, 11(2), 191–209. https://doi.org/10.1080/21568316.2013.864995
- Brug, J., Aro, A.R., Oenema, A., De-Zwart, O., Richardus, J.H., & Bishop, G.D. (2004). SARS risk perception, knowledge, precautions, and information sources, the Netherlands. *Emerging Infec*tious Disease, 10(8), 1486–1489. https://doi.org/10.3201/eid1008.040283
- Calgaro, E., & Lloyd, K. (2008). Sun, sea, sand and tsunami: Examining disaster vulnerability in the tourism community of Khao Lak, Thailand. Singapore Journal of Tropical Geography, 29, 288–306. https://doi.org/10.1111/j.1467-9493.2008.00335.x
- Carlino, S., Somma, R., & Mayberry, G. (2008). Volcanic risk perception of young people in the urban areas of Vesuvius: Comparisons with other volcanic areas and implications for emergency management. *Journal of Volcanology and Geothermal Research*, 172, 229–243. https://doi.org/10.1016/j.jvolgeores.2007.12.010
- Chen, J.S., & Gursory, D. (2001). An investigation of tourists' destination loyalty and preferences. *International Journal of Contemporary Hospitality Management*, 13(2), 79–85. https://doi.org/10.1108/09596110110381870/full/html#idm46325393246928
- Cheung, C., & Law, R. (2006). How can hotel guests be protected during the occurrence of a Tsunami? Asia Pacific Journal of Tourism Research, 11, 289–295. https://doi.org/10.1080/10941660600753331
- Chirisa, I., Mutambisi, T., Chivenge, M., Mbasera, M., Sidambe, M., Muchenje, B., Mukwashi, T., Mabaso, E., Ncube, R., & Zengeni, D. (2020). Scope for virtual tourism in the times of COVID-19 in select African destinations. *Journal of Social Science*, 64(1–3), 1–13. https://doi.org/10.31901/24566756.2020/64.1-3.2266
- Colizza, V., Barrat, A., Barthelemy, M., & Vespignani, A. (2007). Predictability and epidemic pathways in global outbreaks of infectious diseases: The SARS case. *BMC Medicine*, *5*(1), 34. https://doi.org/10.1186/1741-7015-5-34
- Cook, J. (2015). A six-stage business continuity and disaster recovery planning cycle. SAM Advanced Management Journal, 3, 23–33.
- Cooper, C. (2005). Japanese tourism and the SARS epidemic of 2003. *Journal of Travel and Tourism Marketing*, 19(2/3), 117–131. https://doi.org/10.1300/J073v19n02_10
- Cori, L., Bianchi, F., Ennio-Cadum, E., & Anthonj, C. (2020). Risk perception and Covid-19. *International Journal of Environmental Research and Public Health*, 17, 3114. https://doi.org/10.3390/ijerph17093114

- Dayour, F., Adongo, C.A., Amuquandoh, F.E., & Adam, I. (2020). Managing the COVID-19 crisis: Coping and post-recovery strategies for hospitality and tourism businesses in Ghana. *Journal of Hospitality and Tourism Insights*, 4(4), 373–392.
- De Nisco, A., Mainolfi, G., Marino, V., & Napolitano, M.R. (2015). Tourism satisfaction effect on general country image, destination image, and post-visit intentions. *Journal of Vacation Marketing*, 21(4), 305–317. https://doi.org/10.1177/1356766715577502
- De Sausmarez, N. (2004). Crisis management for the tourism sector: Preliminary considerations in policy development. *Tourism and Hospitality Planning and Development*, 1, 157–172. https://doi.org/10.1080/1479053042000251070
- Drakos, K., & Kutan, A.M. (2003). Regional effects of terrorism on tourism: Evidence from three Mediterranean countries. *Journal of Conflict Resolution*, 47(5), 621–641. https://doi.org/10.1177/0022002703258198
- Dube, K. (2021). Implications of COVID-19 induced lockdown on the South African tourism industry and prospects for recovery. *African Journal of Hospitality, Tourism and Leisure*, *10*(1), 270–287. https://doi.org/10.46222/ajhtl.19770720-99
- Dube, K., Nhamo, G., & Chikodzi, D. (2020). Covid-19 cripples global restaurant and hospitality industry. Current Issues in Tourism, 24(11), 1487–1490, https://doi.org/10.1080/13683500.202 0.1773416
- Edokwe, B. (2021). *Kukah: N5000 payment to poor Nigerians, a big scam.* https://barristerng.com/kukah-n5000-payment-to-poor-nigerians-a-big-scam/
- Ezeh, A., & Fonn, S. (2020, 27 May). Sub-Saharan Africa needs to plug local knowledge gap to up its anti-COVID-19 game. The Conversation. https://theconversation.com/sub-saharan-africa-needs-to-plug-local-knowledge-gap-to-up-its-anti-covid-19-game-138917
- Fabeil, N.F., Pazim, K.H., & Langgat, J. (2020a). Survivability of micro-enterprises during the pandemic crisis. *Asian Journal of Entrepreneurship*, 1(4), 144–153. https://myjms.mohe.gov.my/index.php/aje/article/view/11666/5623
- Fabeil, N.F, Pazim, K.H. & Langgat, J. (2020b). The impact of COVID-19 pandemic crisis on micro enterprises: Entrepreneurs' perspectives on business continuity and recovery strategy. *Journal of Economics and Business*, 3(2), 837–844.
- Faulkner, B. (2001). A framework for tourism disaster management. *Tourism Management*, 22(2), 135–147. https://doi.org/10.1016/S0261-5177(00)00048-0
- Faulkner, B., & Valeiro, P. (1995). An integrative approach to tourism demand forecasting. *Tourism Management*, 16(1), 29–37. https://doi.org/10.1016/0261-5177(94)00005-U
- Fletcher, R., Büscher, B., Massarella, K., & Koot, K. (2020). Ecotourism and conservation under COVID-19 and beyond. *ATLAS Tourism and Leisure Review*, 2, 65–73. https://research.wur.nl/en/publications/ecotourism-and-conservation-under-covid-19-and-beyond
- Garrido-Moreno, A., Garcia-Morales, V.J., & Marin-Rojas, R. (2021). Going beyond the curve: Strategic measures to recover hotel activity in times of COVID-19. *International Journal of Hospitality Management*, 96, 102928. https://doi.org/10.1016/j.ijhm.2021.102928
- Giddy, J.K., & Rogerson, J.M. (2021). Nature-based tourism enterprise adaptive responses to COV-ID-19 in South Africa. *GeoJournal of Tourism and Geosites*, 36(2 Supplement), 698–707. https://doi.org/10.30892/gtg.362spl18-700
- Gray, D., & Mishtal, J. (2019). Managing an epidemic: Zika interventions and community responses in Belize. *Global Public Health*, 14(1), 9–22. https://doi.org/10.1080/17441692.2018.1471146
- Hambira, W.L., Stone, L.S., & Pagiwa, V. (2021). Botswana nature-based tourism and COVID-19: Transformational implications for the future. *Development Southern Africa*, 39(1), 51–67. https://doi.org/10.1080/0376835X.2021.1955661
- Hao, F., Xiao, Q., & Chon, K. (2020). COVID-19 and China's hotel industry: Impacts, a disaster management framework, and post-pandemic agenda. *International Journal of Hospitality Man*agement, 90, 102636. https://doi.org/10.1016/j.ijhm.2020.102636

- Heredia-Colaco, V., & Rodrigues H. (2021). Hosting in turbulent times: Hoteliers' perceptions and strategies to recover from the COVID-19 pandemic. *International Journal of Hospitality Management*, 96, 102835. https://doi.org/10.1016/j.ijhm.2020.102835
- Higgins, B.A. (2005). The storms of summer: Lessons learned in the aftermath of the hurricanes of 2004. *Cornell Hotel and Restaurant Administration Quarterly*, 46, 40–46. https://doi.org/10.1177/0010880404272444
- Huang, J.H., & Min, J.C.H. (2002). Earthquake devastation and recovery in tourism: The Taiwan case. *Tourism Management*, 23(2), 145–154. https://doi.org/10.1016/S0261-5177(01)00051-6
- Ichinosawa, J. (2006). Reputational disaster in Phuket: The secondary impact of tsunami on inbound tourism. *Disaster Prevention and Management*, 15(1), 111–123. https://doi.org/10.1108/09653560610654275
- Israeli, A.A., Mohsin, A., & Kumar, B. (2011). Hospitality crisis management practices: The case of Indian luxury hotels. *International Journal of Hospitality Management*, 30(2) 367–374. https://doi.org/10.1016/j.ijhm.2010.06.009
- Kapuscinski, G. (2014). The effects of news media on leisure tourist's perception of risk and willingness to travel, with specific reference to events of terrorism and political instability. Doctoral thesis. Bournemouth: Bournemouth University, Institute of Tourism. https://eprints.bournemouth. ac.uk/21778/1/Kapuscinski%2CGrzegorz_%20PhD_2014.pdf
- Kaushal, V., & Srivastava, S. (2021). Hospitality and tourism industry amid COVID-19 pandemic: Perspectives on challenges and learnings from India. *International Journal of Hospitality Management*, 92, 102707. https://doi.org/10.1016/j.ijhm.2020.102707
- Keeling, M.J., Woolhouse, M.E.J., May, R.M., Davies, G., & Grenfell, B.T. (2003). Modelling vaccination strategies against foot-and-mouth disease. *Nature*, 421, 136–142. https://doi.org/10.1038/nature01343
- Khadaroo, J., & Seetanah, B. (2007). Transport infrastructure and tourism development. *Annals of Tourism Research*, 34(4), 1021–1032. https://doi.org/10.1016/j.annals.2007.05.010
- Kim, S.S., Chun, H., & Lee, H. (2005). The effects of SARS on the Korean hotel industry and measures to overcome the crisis: A case study of six Korean five-star hotels, *Asia Pacific Journal of Tourism Research*, 10(4), 369–377. https://doi.org/10.1080/10941660500363694
- Kusdibyo, L. (2021). Tourist loyalty to hot springs destination: The role of tourist motivation, destination image, and tourist satisfaction. *Leisure*, 46(3), 381–408. https://doi.org/10.1080/14927 713.2021.1986420
- Lemonakis, C., & Zairis, A. (2019, December 11). Managing crisis and public sector organizations. *European Business Review*. https://www.europeanbusinessreview.eu/page.asp?pid=3368
- Li, T.T., Liu, F., & Soutar, G.N. (2021). Experiences, post-trip destination image, satisfaction and loyalty: A study in an ecotourism context. *Journal of Destination Marketing & Management*, 19, 100547. https://doi.org/10.1016/j.jdmm.2020.100547
- Malikhao, P. (2017). Tourism, digital social communication and development discourse: A case study of Chinese tourists in Thailand. In *Culture and Communication in Thailand* (pp. 71–87). Springer. https://doi.org/10.1007/978-981-10-4125-9_5
- Mandić, A., Mrnjavac, Z., & Kordić, K. (2018). Tourism infrastructure, recreational facilities, and tourism development. *Tourism and Hospitality Management*, 24(1), 41–62. https://doi.org/10.1063/1.4967730
- Mansfeld, Y. (2006). The role of security information in tourism crisis management: The missing link. In Y. Mansfeld, & A. Pizam (Eds.), *Tourism, security & safety from theory to practice.* Elsevier, Butterworth-Heinemann.
- Maphanga, P.M., & Henama, U.S. (2019). The tourism impact of Ebola in Africa: Lessons on crisis management. *African Journal of Hospitality, Tourism and Leisure*, 8, 1–13. https://www.ajhtl.com/uploads/7/1/6/3/7163688/article_59_vol_8_3__2019.pdf

- Masaki, E.A., John, W.F., & Abel, C. (2021). Impact of ICT tools and apps on tourism destination marketing: A case of RDB and Marriot Hotels, Kigali, Rwanda. *International Journal of Social Science and Economic Research*, 6(4), 1232–1249. https://doi.org/10.46609/IJSSER.2021.v06i04.008
- McKercher, B., & Chon, K. (2004). The over-reaction to SARS and the collapse of Asian tourism. *Annals of Tourism Research*, *31*(3), 716–719. https://doi.org/10.1016/j.annals.2003.11.002
- McKercher, B. (1999). A chaos approach to tourism. *Tourism Management*, 20(4), 425–434. https://doi.org/10.1016/S0261-5177(99)00008-4
- Mensah, E.A., & Boakye, K.A. (2021). Conceptualizing post-COVID-19 tourism recovery: A threestep framework. *Tourism Planning & Development*. https://doi.org/10.1080/21568316.2021.194 5674
- Musango, H.J., & Rusibana, C. (2021). The effect of information and communication to revenue collection in selected hotels in Kigali. *International Journal of Advanced Scientific Research and Management*, 6(3), 32–43. http://erepository.mkuit.ac.rw/handle/123456789/6843
- Nair, B.B., & Mohanty, P.P. (2021). Positioning spice tourism as an emerging form of special interest tourism: Perspectives and strategies. *Journal of Ethnic Foods*, 8, 10. https://doi.org/10.1186/s42779-021-00086-4
- Neuman, W.L. (2003). Social science research methods: Qualitative and quantitative approaches. Allyn and Bacon.
- Nguyen, D., & Imamura, F. (2017). Recovering from prolonged negative destination images in post-disaster northern Japan. Recovering from catastrophic disasters in Asia. *Community, Environment and Disaster Risk Management*, 18, 37–59. https://doi.org/10.1108/S2040-726220160000018003
- Nyaruwata, S., & Mbasera, M. (2021). A critique of contribution of tourism to jobs in Southern African Development Community (SADC): Implications for post COVID-19 pandemic. *International Tourism and Hospitality Journal*, 4(5), 1–18. https://doi.org/10.37227/ITHJ-2021-03-116
- Nyawo, J.C. (2020). Evaluation of government responses and measures on COVID-19 in the tourism sector: A case of tour guides in South Africa. African Journal of Hospitality, *Tourism and Leisure*, 9(5), 1144–1160. https://doi.org/10.46222/ajhtl.19770720-74
- Oyebade, W. (2020, March 20). Covid-19 could cost Nigerian airlines \$434 million, 22,200 Jobs. *Guardian Business Online News*. https://guardian.ng/business-services/covid-19-could-cost-nigerian-airlines-434-million-22200-jobs/
- Ozili, P., & Arun, T. (2020). Spillover of COVID-19: Impact on the global economy. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3562570
- Paraskevas, A. (2006). Crisis management or crisis response system? A complexity science approach to organizational crises management. *Management Decision*, 44(7) 892–906. https://doi.org/10.1108/00251740610680587
- Park, E., Kim, W., & Kim, S. (2022). How does COVID-19 differ from previous crises? A comparative study of health-related crisis research in the tourism and hospitality context. *International Journal* of Hospitality Management, 103. 103199. https://doi.org/10.1016/j.ijhm.2022.103199
- Persson-Fischer, U., & Liu, S. (2021). The impact of a global crisis on areas and topics of research. Sustainability, 13(2) 906. https://doi.org/10.3390/su13020906
- Phelan, K.V. (2015). Elephants, orphans and HIV/AIDS: Examining the voluntourist experience in Botswana. *Worldwide Hospitality and Tourism Themes*, 7(2), 127–140. https://doi.org/10.1108/WHATT-12-2014-0049
- Pike, S., Kotsi, F., Mathmann, F., & Wang, D. (2021). Making the right stopover destination choice: The effect of assessment orientation on attitudinal stopover destination loyalty. *Journal of Hospitality and Tourism Management*, 47, 462–467. https://doi.org/10.1016/j.jhtm.2021.04.008
- Richards, B. (2007). Emotional governance: Politics, media and terror. Macmillan.
- Rindrasih, E., Witte, P., Spit, T., & Zoomers, A. (2019). Tourism and disaster: Impact of disaster events on tourism development in Indonesia 1998–2016 and structural approach policy responses. *Journal of Service Sciences and Management*, 12, 93–115. https://doi.org/10.4236/jssm.2019.122006

- Ritchie, B.W. (2004). Chaos, crises and disaster: A strategic approach to crisis management in the tourism industry. *Tourism Management*, 25, 669–683. https://doi.org/10.1016/j.tourman.2003.09.004
- Rodway-Dyer, S., & Shaw, G. (2005). The Effects of the foot-and-mouth outbreak on visitor behaviour: The Case of Dartmoor National Park, South-West England. *Journal of Sustainable Tourism*, 13, 63–81. https://doi.org/10.1080/17501220508668473
- Rogerson, C.M., & Baum, T. (2020). Covid-19 and African tourism research agendas. *Development Southern Africa*, *37*(5), 727–741. https://doi.org/10.1080/0376835X.2020.1818551
- Rogerson, C.M., & Rogerson, J.M. (2021). African tourism in uncertain times: COVID-19 research progress. *GeoJournal of Tourism Geosites*, 38(4), 1026–1032. https://doi.org/10.30892/gtg.38406-740
- Rogerson, C.M., & Rogerson J.M. (2020). COVID-19 tourism impacts in South Africa: Government and industry responses. *Geojournal of Tourism and Geosites*, *31*(3), 1083–1091. https://doi.org/10.30892/gtg.31321-544
- Rogerson, C.M., & Rogerson, J.M. (2022). The first round impacts of COVID-19 for rural tourism in South Africa. *Studia Periegetica*, *37*(1), 63–86. https://doi.org/10.5604/01.3001.0015.8579
- Rosselló, J., Becken, S., & Santana-Gallego, M. (2020). The effects of natural disasters on international tourism: A global analysish. *Tourism Management*, 79, 1–10. https://doi.org/10.1016/j. tourman.2020.104080
- Russell, R., & Faulkner, B. (1999). Movers and shakers: Chaos makers in tourism development. *Tourism Management 20*(4), 411–423. https://doi.org/10.1016/S0261-5177(99)00014-X
- Russell, R., & Faulkner, B. (2004). Entrepreneurship, chaos and the tourism area lifecycle. *Annals of Tourism Research*, 32(3), 556–579. https://doi.org/10.1016/j.annals.2004.01.008
- Russell, R.A. (2006). Chaos theory and managerial approaches. In D. Buhalis & C. Costa (Eds.), Tourism management dynamics: Trend, management and tools (pp. 108–115). Butterworth-Heinemann.
- Scott, N., Laws, E., & Prideaux, B. (2008). Tourism crises and marketing recovery strategies. *Journal of Travel and Tourism Marketing*, 23(2–4), 1–13. https://doi.org/10.1300/J073v23n02_01
- Sifolo, N., & Sifolo, P.P.S. (2015). The tourism inconvenience of the Ebola epidemic: Lessons for the South African tourism sector. *African Journal of Hospitality, Tourism and Leisure*, 4(1), 1–11. http://www.ajhtl.com/uploads/7/1/6/3/7163688/article43vol4(1)2015_.pdf
- Sellnow, T.L., Seeger, M.W., & Ulmer, R.R. (2002). Chaos theory, information needs and natural disasters. *Journal of Applied Communication Research*, 30(4), 269–292. https://doi.org/10.1080/00909880216599
- Senbeto, D.L. (2022). Crisis and Africa's tourism industry: A comprehensive review and agenda for future research. *Tourism Managegement Perspectives*, 43, 1000992. https://doi.org/10.1016/j. tmp.2022.100992
- Soliku, O., Kyiire, B., Mahama, A., & Kunio, C. (2021). Tourism and COVID-19 pandemic: Impacts and implications for building resilience in the eco-tourism sector in Ghana's Savannah region. *Heliyon*, 7, e07892. https://doi.org/10.1016/j.heliyon.2021.e07892
- Speakman, M., & Sharpley, R. (2012). A chaos theory perspective on destination crisis management: Evidence from Mexico. *Journal of Destination Management and Marketing*, 1(1–2), 67–77. https://doi.org/10.1016/j.jdmm.2012.05.003
- Stavrianea, A., & Kamenidou, I.E. (2021). Memorable tourism experiences, destination image, satisfaction, and loyalty: An empirical study of Santorini Island. *Euro Med Journal of Business*, *17*(1), 1–20. https://doi.org/10.1108/EMJB-10-2020-0106
- Su, Y.W., Lin, H.L., & Liu, L.M. (2012). Chinese tourists in Taiwan: Crowding-out effects, opening policy and its implications. *Tourism Management Perspectives*, 4, 45–55. https://doi.org/10.1016/j. tmp.2012.04.003
- Tsai, S.P. (2012). Place attachment and tourism marketing: Investigating international tourists in Singapore. *International Journal of Tourism Research*, 14(2), 139–152. https://doi.org/10.1002/jtr.842

- Tsaur, S.H, Yens, C.H., & Teng, H.Y. (2018). Tourist-residents' conflicts: A scale development and empirical study. *Journal of Destination Marketing and Management*, 10, 152–163. https://doi.org/10.1016/j.jdmm.2018.09.002
- UNWTO (United Nations World Tourism Organization) (2020, January). World tourism barometer and statistical annex. https://www.e-unwto.org/doi/abs/10.18111/wtobarometereng.2020.18.1.1
- Visser, G., & Marais, M. (2021). The impact of COVID-19 on safari lodges in Northern Kwazulu-Natal, South Africa. *African Journal of Hospitality and Leisure*, 10(5), 1683–1694.
- WHO (World Health Organization) (2003). Consensus document on the epidemiology of severe acute respiratory syndrome (SARS). https://apps.who.int/iris/bitstream/handle/10665/70863/WHO_CDS_CSR_GAR_2003.11_eng.pdf (2020.03.16).
- WHO (2020). Operational considerations for Covid-19 management in the accommodation sector. https://apps.who.int/iris/bitstream/handle/10665/331638/WHO-2019-nCoV-Hotels-2020.1-eng. pdf (2020.06.25).
- Yang, J., Ryan, C., & Zhang, L. (2013). Social conflict in communities impacted by tourism. *Tourism Management*, 35, 82–93. https://doi.org/10.1016/j.tourman.2012.06.002
- Yap, M.H.T. & Ineson, E. M. (2009). HIV-Infected employees in the Asian hospitality industry. *Journal of Service Management*, 20(5), 503–520. https://doi.org/10.1108/09564230910995116
- Ye, B., Zhang, H.Q., & Yuen, P.P. (2013). Cultural conflicts or cultural cushion? *Annals of Tourism Research*, 43, 321–349. https://doi.org/10.1016/j.annals.2013.07.003
- Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. *Tourism Management*, 26(1), 45–56. https://doi.org/10.1016/j.tourman.2003.08.016
- Zahra, A., & Ryan, C. (2007). From chaos to cohesion-complexity in tourism structures: An analysis of New Zealand's regional tourism organization. *Tourism Management*, 28(3), 854–862. https://doi.org/10.1016/j.tourman.2006.06.004
- Zenker, S., & Kock, F. (2020). The Coronavirus pandemic a critical tourism research agenda. *Tourism Management*, 81, 104164. https://doi.org/10.1016/j.tourman.2020.104164

Praktyki zarządzania przedsiębiorstwami turystycznymi w stanie Plateau w Nigerii w dobie "nowej normalności": podejście oparte na teorii chaosu

Streszczenie. W wyniku pandemii COVID-19 firmy z branży turystycznej znalazły się na skraju chaosu i stanęły w obliczu dramatycznej zmiany warunków funkcjonowania ze względu na ograniczenia, które pociągnęły za sobą bezprecedensowe i dalekosiężne skutki. Odwołując się do teorii chaosu, autorzy artykułu analizują dane jakościowe uzyskane od 24 menedżerów przedsiębiorstw turystycznych w stanie Plateau w Nigerii na temat praktyk zarządzania stosowanych w celu promowania działalności turystycznej po ponownym otwarciu przedsiębiorstw turystycznych po pandemii. Wyniki pokazują, że większość badanych firm turystycznych przetrwała pandemię i stopniowo "dochodziły do siebie" dzięki pracownikom i zmianie sposobu funkcjonowania. W wyniku nagłej zmiany warunków, które w teorii chaosu noszą miano bifurkacji, wiele przedsiębiorstw turystycznych musiało zaprzestać działalności, podczas gdy niektórym udało się zdobyć nowe segmenty rynku dzięki reorganizacji. Możliwość zastosowania teorii chaosu do analizy praktyk zarządzania przedsiębiorstwem podczas pandemii stanowi dalsze potwierdzenie złożonego i nieprzewidywalnego charakteru tego kryzysu.

Słowa kluczowe: turystyka, praktyki zarządzania przedsiębiorstwem, nowa normalność, teoria chaosu, stan Plateau



Copyright and license. This article is published under the terms of the Creative Commons Attribution — NoDerivates 4.0 International (CC BY-ND 4.0) License, https://creativecommons.org/licenses/by-nd/4.0/