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Digital Technology Adaptability: Insights from Destination Network Practices for Tourism Businesses in South Africa

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Abstract

How digital information is used, and interacted with, and how it impacts the destination's image is a crucial factor in determining travel decisions. Therefore, the capabilities of organisations in adopting technology are critical to effectively deliver excellent services and quality goods. The study aims to establish the current state of digital technologies adopted by the selected businesses in travel, tourism, and hospitality sectors in destination South Africa. This study adopted the use of Gephi, which is a valuable tool for network analysis and visualisation through the assessment of digital technology adaptability in various tourism business networks which is critical in South Africa as a developing destination. The results revealed interconnected relationships, communication patterns, and collaborative interaction patterns within the network of tourism businesses as best practices for digital technology adaptability to improve the destination's competitiveness and efficiency.

Keywords: Digital technology adaptability; destination network practices; tourism businesses; Gephi

Introduction

The multi-tourism industry is diverse; it is centered around providing services to individuals traveling for leisure, business, or other purposes to destinations away from their usual place of residence. Establishing interactions with various stakeholders, such as hotels, airlines, travel agencies, tour operators, restaurants, local communities, and governments, is paramount for the competitiveness of the destination. According to Dredge and Gyimóthy (2017), digital collaboration enhances internet connection whilst facilitating global market access to a range of previously untapped products, services, and experiences. Customer satisfaction and experience are of utmost importance, driving the industry's customer-centric approach. Additionally, the tourism sector significantly contributes to the economies of many destinations, generating income and employment opportunities. However, the industry faces sustainability challenges, some are often associated with contributions from lifestyle entrepreneurs' orientation whose aim is to balance a combination of economically sustainable goals (Getz & Peterson, 2005; Bredvold & Skålén, 2016; Sheldon & Daniele, 2017). There is a need to prioritise responsible practices (Fuchs, 2022). Embracing technological advancements and fostering innovation are essential for enhancing operations and customer experiences. Despite the industry’s resilience to disruptions, effective collaboration and adherence to regulatory frameworks are crucial for sustainable growth and positive economic and social outcomes.

Digital technologies provide opportunities for businesses to embrace, integrate, and adapt to various digital tools, platforms, and innovations to achieve business objectives or personal goals. According to Roldan (2023), technology contributes to social progress, operated through online platforms known as digital tourism to satisfy and meet the needs of the clients. Digital adoption in South Africa keeps on improving as a result of South Africans' interaction with and participation in technology. More than 43 million people are on the internet, of which 25.80 million people (59.3%) are on Social Media (CSA, 2022). Adaptability

is a necessity for an organisation's ability to effectively and flexibly incorporate and utilise digital technologies to address challenges, improve processes, and stay relevant in a rapidly evolving digital landscape. Consequently, strengthening collaboration at all levels, whilst leveraging technological and digital solutions is paramount in a destination.

Literature review

Tourism destination South Africa

The pandemic undoubtedly left a dent in the tourism industry worldwide. Destination South Africa (SA) was also impacted. However, SA strives by projecting inbound tourism numbers beyond pre-covid levels. The travel and tourism industry are among the prioritised sectors when it comes to national development planning in South Africa. The industry is anticipated to increase by 7.6% over the next ten years in South Africa (greatly exceeding the nation's 1.8% overall economic growth rate) according to the World Travel & Tourism Council (WTTC's) Economic Impact Report (EIR), (WTTC, 2022). The sector might contribute more than ZAR 554.6 billion to GDP by 2032 (7.4% of the entire economy), bringing in close to ZAR 287 billion (WTTC, 2022). Moreover, the sector is anticipated to add more than 800,000 employment opportunities bringing the total to more than 1.9 million by 2032 (WTTC, 2022). South Africa boasts its' natural landscape, cultural diversity, and rich history. The country contributes towards captivating and memorable destinations for travellers' seeking an unforgettable experience. This is possible through diverse stakeholders, such as individuals and public or private groups, each with their interests, resources, and requirements. Despite their differences, these actors collaborate to achieve shared goals within the destination. The insights on destination network practices for tourism businesses are minimally shared.

South Africa was ranked number 27 among the countries that are most visited in the world with 3,886,600 international tourists in 2022 (Wisevoter, 2023). The country is vast with 9 provinces. The estimated population of South Africa in January 2023 is 60.14 million people with 28,827,400 Facebook users and was ranked number 24 when it comes to Facebook users, with a median internet speed of 40.12Mbps and ranked number 98 (Wisevoter, 2023). The modern world is seeing a growth in the usage of digital devices, as well as a shift away from paperwork and towards digital dependency (Salama, 2020). Technology is transforming the workplace, and as a result, people must expand their skill sets to advance in their professions. A tourist destination is considered a relational system composed of diverse tourism actors (Ledesma et al., 2021). The industry encompasses a wide range of activities and businesses, from accommodation, transportation, hospitality, and tour operations. These players collaborate to learn about the guests' requirements and preferences and to create a one-of-a-kind experience for them. Moreover, the industry players also take due cognisance of the different stakeholders in the community because the structure of the tourism industry demands constructed participation of several stakeholders, such as individuals and public or private entities, each with its own set of interests, resources, and needs. Despite their differences, these players work together to achieve common objectives within the destination.

Problem definition

Multi-destination technological networks in tourist destinations have been given little attention in developing countries (Shih, 2005). Yet, strengthening collaboration at all levels, whilst leveraging technological and digital solutions remains crucial for the tourism destinations to satisfy the changing demands and expectations of tourists. South Africa is becoming increasingly dependent on digital technologies. Assessing the degree of digital technology adaptability across tourism enterprises inside destination networks is still lacking. The lack of

insights into destination network practices and sharing of successful applications of digital technology hinders the inclusion of small businesses and entrepreneurs in the value chain.

Research goal

This study intends to establish the current state of digital technology adaptability of tourism businesses working within destination networks in South Africa. This study aims to present evidence-based recommendations and tactics to promote increased digital technology adoption, cooperation, and use by obtaining insightful information from destination network practices.

Tourism destination network characteristics and digital technology adaptability practices in destination South Africa

The role of network characteristics in shaping tourism destinations is critical to consider. Interconnected relationships, collaboration patterns, and communication flows among stakeholders within a destination's tourism ecosystem are critical elements in a tourism destination (Ritchie & Crouch, 2003). According to Shih (2005), the appropriate tourism destination must have functioning facilities and quality services to its network position on various touring routes. The significance of stakeholder diversity, interdependence, collaboration, and digital connectivity in enhancing the overall performance and sustainability of tourism destinations is emphasised in the literature. The visitor flows, local community involvement, and feedback mechanisms in optimising resource allocation and ensuring responsible tourism practices remain at the centre of the tourism business. By understanding and leveraging these destination network characteristics, resilience, adaptability, and long-term growth in the global tourism industry are possible to achieve. WTTC (2022) calls for the tourism stakeholders (hotel operators, owners, associations, and investors) to work across their networks to implement the criteria to ensure a sustainable transition for the global hotel industry.

COVID-19 accelerated the digital technologies adoption worldwide. Although the COVID-19 pandemic hard hit the hospitality industry, technology has enhanced the way of doing business in the tourism industry in South Africa (Henama & Manavhela, 2020) and digital adoption in South Africa. Puckett (2022, p. 621) stated that technology adaptability considers "the efficient design logic which assists in developing awareness that technology is designed to achieve goals whilst managing the frustration and boredom of those involved and their willingness to try and fail and trying out models' approach to learning technology". Digitalisation among Small, Micro, and Medium Enterprises (SMMEs) has been slow in South Africa due to constraints such as a lack of infrastructure, networks, technologies, and related skills to fast-track digital transition (Sifolo, 2023; Anwar et al., 2014). Although some South African tourism-related establishments adopted digital technologies (long time ago) to meet customer-driven demand in the travel, tourism, and hospitality sector, Information Computer Technologies (ICT) adoption continues to be constrained by regulatory frameworks, limited financial resources, and low ICT skills (Fuchs & Sigala, 2022). In this study, digital technology adaptability involves assessing how effectively the business incorporates and utilises digital technology to enhance its operations, marketing, and customer experience. Factors such as website and online presence, online booking, and payment, mobile-friendly, digital marketing, social media engagement, online reviews, reputation management, use of analytics and data, technology integration, digital customer service, innovation and upgrades, training and tech savviness, partnerships, and collaborations were examined. One can gauge the level of digital technology adaptability in the tourism business and determine how well it aligns with the evolving digital landscape by observing these factors.

It would be myopic to neglect the role that government authorities play in continuously developing and improving upon the current e-tourism infrastructures to keep up with the increasing competitiveness in the sector, to enable South Africa to be digitally connected and be competitive (Tichaawa et al., 2017). For example, Hotel Sky in Johannesburg is the first African hotel to deploy robot staff members in 2021, with the introduction of digital travel portals and digital health passes among other technologies. Developing digital solutions promotes the safe revival of inbound and international travel. This indicates the commitment of the tourism stakeholders and innovative ways to get more people to visit a destination to promote effective destination networks.

Theoretical background

The study of network representations of social phenomena draws on theories and methods from many disciplines and aims to describe the relations among the entities involved and analyse the structures that emerge from these relations to better understand their functions and dynamic behaviors (Baggio, 2023). This paper is supported by two prominent theories (post-mechanistic economic theory and technological determinism) that provide explanations of the complex reality of tourism businesses in destination South Africa when it comes to digital technology adaptability. Firstly, with its roots in neoclassical economic theories, the post-mechanistic economic theory puts creativity in the center, where human action is all about the creation of diversity (goods, linkages, ideas, and so forth), surplus and selection (Fuchs & Baggio, 2017). Historically, it was founded on mechanistic and reductionist concepts and gave rise to post-mechanistic economic theory. The theory tried to overcome some of the shortcomings of conventional economic theories in understanding intricate economic events, and it started to gain traction in the late 20th century. Framed within the concept of "post-mechanistic" economic theory, according to Fuchs and Baggio (2022, p. 4-7), the post-mechanistic theory considers creativity in the networks of socio-economic relationships (see also, Brodbeck 2001) and places emphasis on socially interconnectedness and communication. This study is grounded within the networking practices of destination South Africa, to assess the adaptability of digital technology in various tourism business networks. As a developing destination, South African tourism businesses incorporate all the elements of a post-mechanist economic theory which includes freedom of choice, cognitive relativity, social interconnectedness, and communication, as well as creativity. Post-mechanistic economic theory resonates with the study's objective on open networks with the capacity to create quasi-autonomous realities by continuously generating and mutually relating new facts (Brodbeck 2003, p. 7). Moreover, the theory considers economies as complex adaptive and creative systems, thus, applying destination network analysis to study the topological configurations encouraging the emergence of creative processes and social capital (Baggio, 2014).

Secondly, the technological determinism theory is relevant to this study because it advocates for the idea that technology is the primary driving force behind the transformation of society. Through the use of Gephi, text mining was possible to present visual and network analysis to give an advantage of finding useful features in data or a network. Studies on social network analysis are not new in tourism. Casanueva et al. (2016), agree that social network analysis helps to study the relationships among different nodes of a network and get valuable insights. In this case, the data gathered from statistical analysis of digital technology and the destination network practices of tourism enhances businesses in South Africa. The origin of technological determinism theory is mainly attributed to Thorstein Veblen (a sociologist, who discussed the causal relationship between technology and society (Hauer, 2017). In the process of assessing and predicting the internal network behavior of tourism businesses in destination South Africa, Gephi was used to solve problems such as routing optimisation, network

management, and anomaly detection (Majeed et al., 2020). Technological determinism is infused with the concept that technological advancement is equivalent to social progress and the shaping of society through digital technologies and, therefore, capitalist evolution (Papageorgiou & Michaelides, 2016). One may argue that technological determinism transforms society through digital technologies among other elements. The history of digital technologies stems from the field of education which involves a broader context of learning (Sinclair et al., 2010), digital information use, and interaction does affect the perceived destination image, which is a key tool in travel decision-making. However, it is important to note that acquiring direct internal measurements from all parts of the destination network is not practical due to the distributed nature of the Internet.

Research methodology

The methodology research for this study is based on social network analysis. According to Valeri and Baggio (2021), social network analysis studies are possible when one looks at the unit of analysis as a collection of private organisations and their common relations with stakeholders. The studies focusing on social network analysis have adopted both qualitative and quantitative methodologies. Table 1 presents the summary of the methodologies applied in the social network analysis studies using Gephi.

Table 1: Research methodologies adopted in social network analysis

The topic of the article	Method	Sample	Source
How to Visually Analyse Networks Using Gephi.	A mix of qualitative and quantitative methods	Tweets (or, for larger datasets, at least a representative sample of all tweets) to identify the key themes, tone, and sentiment of the discussion.	Bruns & Snee (2022)
Network science and sustainable performance of family businesses in tourism	Content analysis was performed to analyse the relationship between network analysis methods and sustainable performance within the tourism family business domain.	Literature on research papers published in the last twenty years.	Baggio & Valeri (2022)
Italian tourism intermediaries: a social network analysis Exploration	Social Network Analysis (SNA) represents a relevant guide to comprehending the evaluations of organisational dynamics in both qualitative and quantitative terms	Italian travel agencies and tour operators' system	Valeri & Baggio (2021)
Visitor Mobility and Spatial Structure in a Local Urban Tourism Destination: GPS Tracking and Network Analysis	A quantitative analysis methodology to explore the relationship between visitor movement and its spatial factors due to site complexity.	155 visitors agreed to participate in the survey. Of this group, 147 viable GPS log	Sugimoto, Ota, & Suzuki (2019)
Tourist destination development and social network analysis: What does degree centrality contribute?	Qualitative and quantitative methods	Social Network Analysis. Analytical Model was applied.	Ledesma Gonzalez, Merinero-Rodríguez, & Pulido-Fernández, (2021).
Network characteristics of driving tourism destinations: An application of network analysis in tourism	Quantitative method and a network analysis	16 destinations in Nantou, Taiwan, various touring routes	Shih (2006)
Social network analysis: Organisational implications in tourism management	Qualitative and consists of the review literature.	Network characteristics of tourism destinations	Valeri & Baggio (2021)
Social network analysis in tourism	A mix of quantitative and qualitative methods	Social Network Analysis and the use of the 19 journals that appear in the section on Hospitality, Leisure, Sport & Tourism, in the 2013 edition of the Thompson Reuters Journal Citation Report	Casanueva, C., Gallego, & García-Sánchez (2016)
Visitor Mobility and Spatial Structure in a Local Urban Tourism Destination: GPS Tracking and Network Analysis	Applies quantitative analysis	155 visitors through the survey. Of those 147 viable GPS log samples wound up were suitable for analysis	Sugimoto, Ota & Suzuki (2019)

Data collection

The purpose of this paper was to establish the state of digital technology adaptability of tourism, travel, and hospitality businesses in destination South Africa. The pre-processing stage

demanded getting information from several records or sources. Statistics South Africa (StatsSA) was a first point of departure as the national statistical service producing official demographic, economic, and social censuses and surveys. Based on the scope of the study, the Nesstar tool could not be used due to restricted access. Obtaining archival or official records was not possible due to the processes that had to be followed, hence the choice of the Google search engine. Documents from the government were explored but limited access was also a limitation. Data scrapping was done manually.

Data was collected from a Google search in June 2023 by identifying the formally registered businesses in the Tourism and Travel Services, Hospitality, Sports, Recreation & Fitness, Arts, Culture and Heritage, Gaming and Lotteries, and Conservation sub-sectors as described by the Culture, Arts, Tourism, Hospitality and Sport Sector Education and Training Authority (CATHSSETA, 2023). Only the top 10 businesses in Tourism and Travel Services, and Hospitality with strong online presence from 2022 to 2023 on Instagram, Facebook, and Twitter were considered for this study. Upon research, 39,900,000 tourism businesses appeared on as the first top the top 10 businesses in the travel, tourism, and hospitality sectors in South Africa (those that appeared twice in 2 different sectors were captured once). The sample sizes differ from small to larger scale.

Gephi0.9.2 was used to analyse the complex networks of the businesses. Studies utilising Gephi in the African context are limited. The choice of such a representative unit is due to the study focus which is on digital technology adaptability, to get insights from tourism business practices in South Africa as they play a critical role within the national and international tourist system. A network size of 57 businesses was used. Although the size is very small, the hyperlinks of tourism organisations' websites or social media accounts and the number of active users, are good indicators for the configuration of the real-world relationships (links) between destination stakeholders (Éber et al., 2018). The network data used in this work considers the websites and names of the top 10 businesses with strong online presence in different categories in South Africa as nodes. The geographic location, company size, digital technology adaptability, and the number of platform users are edges as indicated in Figure 2.

Research design and operationalisation

The research question for the study is; What insights can be derived when analysing digital technology adaptability among the top 10 travel, tourism, and hospitality businesses across the industry in South Africa using Gephi?

The purpose is to establish the current state of digital technology adaptability of tourism businesses working within destination networks in South Africa.

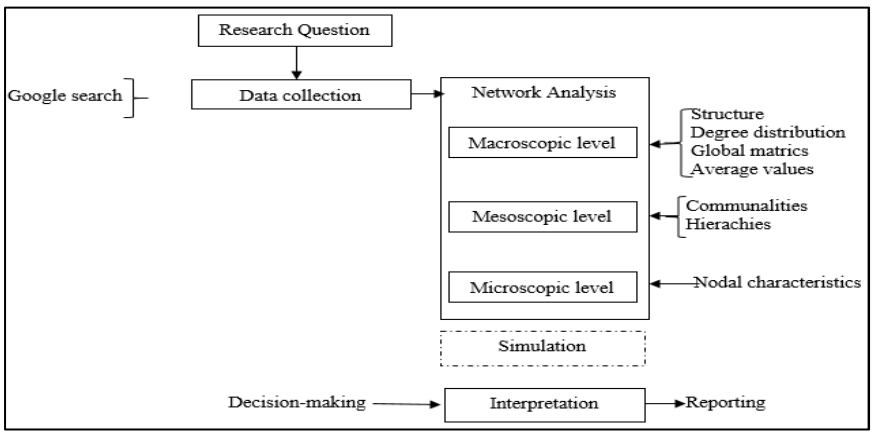

Figure 1: Summary of the processes followed in the study
Source: Adapted from Baggio (2023:77)

Figure 1 presents the process adopted from Baggio (2023) when using Gephi in this study. Moreover, presenting evidence-based recommendations and tactics to promote increased digital technology adoption, cooperation, and use by obtaining insightful information from destination network practices is paramount. As a result, by using network analysis techniques, one gained insight into the relationships, connections, and interactions among different elements in a digital technology ecosystem.

Research results

Sampling may be an issue when dealing with non-homogeneous networks. Éber, Baggio, and Fuchs (2018) agree that the relatively small network size can be considered sufficient to analyse the topology of the underlying tourism network to provide meaningful empirical insights (see also, Ying et al., 2016). They further state that the analysis incorporating the three levels: macro (i.e. the global properties of the network), meso (i.e. the intermediate structure of the network), and micro (i.e. the characteristics of the most prominent actors) is critical in such studies (Éber, et al. 2018). The final sample included the 57 tourism businesses across the tourism value chain in South Africa from the travel (tour operators, transportation, travel services), tourism (destination marketing organisations, digital marketing), and hospitality sector (food and beverage category, accommodation, and so forth). This was due to the repetition from different platforms as some businesses appear 2 to even 4 times in the top 10 list. Figure 2 shows the different locations (cities and towns) where the businesses are located which covers all 9 provinces in South Africa and the sizes of the businesses. Some businesses appeared in various locations, as they were available nationwide.

The results reveal the 57 different businesses in the travel, tourism, and hospitality sectors with strong online presence in South Africa were across all the provinces with the majority of the businesses in different towns Capetown, Gauteng, and KwaZulu Natal. Moreover, each province has different kinds of small to large businesses.

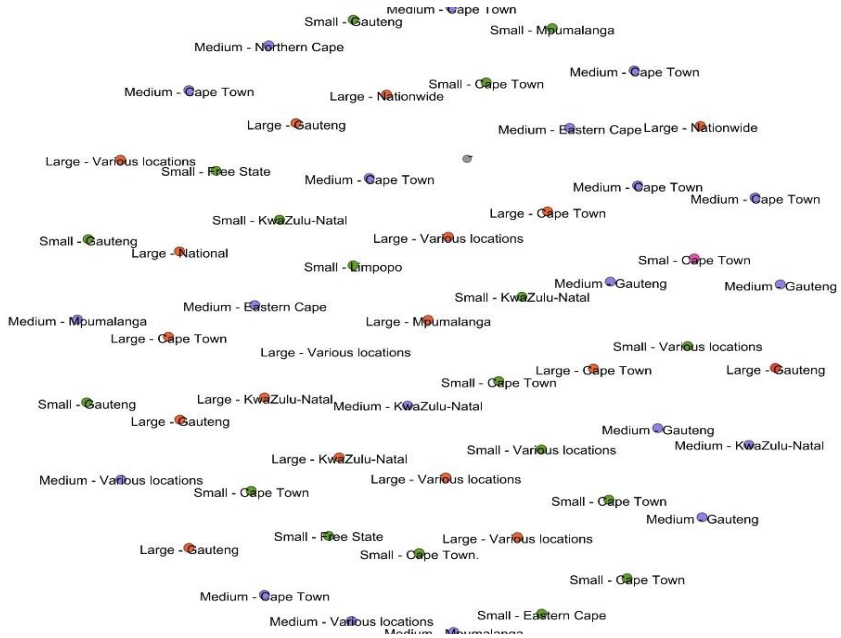

Figure 2: Network graph on the geographic location of the top 10 travel, tourism, and hospitality businesses with strong online presence in South Africa

Figure 3 revealed that 3 businesses were in various locations whilst 19 businesses were large, 13 medium, and 22 were small businesses. The classification considered the number of users of the website and social media platforms namely; LinkedIn, Facebook, Twitter, and Instagram.

If businesses had less than 1000 users, it was a small business. If a business had above 1001 to 99 999, it was classified as a medium business. Whereas a business with more than 100,000 users, was classified as a large business.

The results confirm the current state (ability to effectively and flexibly incorporate and utilise digital technologies to address challenges, improve processes, and stay relevant in a rapidly evolving digital landscape) of the tourism businesses sampled in the study. Figure 3 indicates a cluster of cities with different levels of adaptability. The businesses with high adaptability were noted to be at the National level (1100g 600 adaptable), and are in Gauteng and exists in various locations. The businesses with moderate adaptability are in KwaZulu-Natal (1000+ Various locations), Free State (Small), Eastern Cape businesses had low adaptability, together with businesses in Limpopo (2000 and Northern Cape), whilst Cape Town had Medium. Figure 3 shows that there were large businesses with low digital adaptability. The results also revealed that some of the SMMEs had high technological adaptability. The cities with the highest level of adaptability are concentrated in the central and southern parts of the country, while the cities with the lowest level of adaptability are located in the north and east. This is likely due to a number of factors, including the availability of resources, infrastructure, and economic opportunities. It is also worth noting that the spread of cities with different levels of adaptability is not uniform across all provinces. For example, in Gauteng, all of the cities have a high level of adaptability, while in the Eastern Cape, all of the cities have a low level of adaptability. This confirms that the SMMEs are significant players in the creation of wealth and increasing the living standard of people worldwide; they contribute to the South African Gross Domestic Product (GDP) ranging from 70 % to 95 % (Mokoena & Liambo, 2023; Rogerson & Baum 2020). The results indicated that from the 57 businesses, only 10 effectively incorporate and utilise digital technology to enhance their operations, marketing, and customer experience with high digital technology.

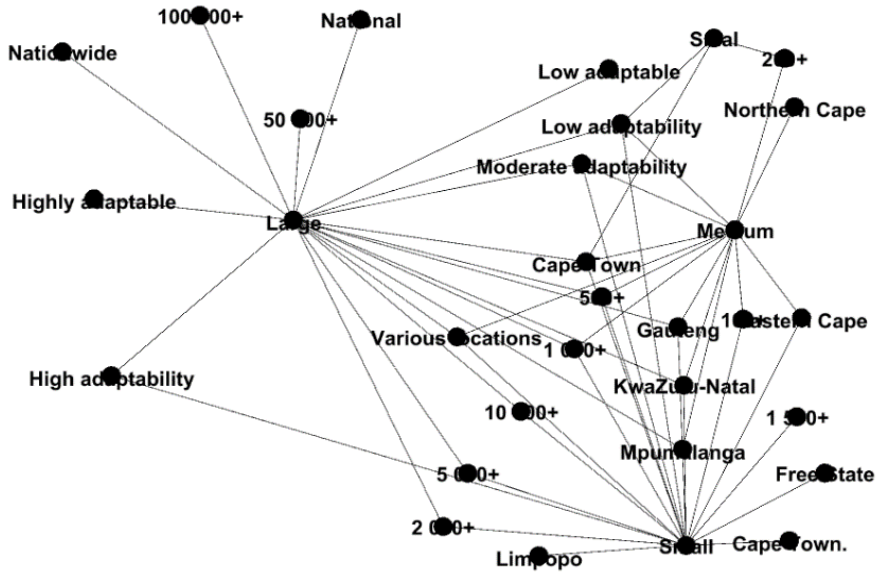

Figure 3: Network graph on the interconnection in various tourism business networks and the digital technology adaptability

Figure 3 shows that large businesses are effective if digital technology is adaptable. About 25 were low in digital adaptability, and 22 businesses were moderately adaptable when it comes to digital technology. According to Budiakova (2021), organisations that actively use technology and new management techniques are, on average, 26% more profitable than their competitors; organisations that invest heavily in digital technology, but pay little attention to

management, have financial performance 11% lower; more conservative companies that improve only management gain 9% in profit, but could potentially acquire three times more with digital technology; those that have not yet chosen a growth strategy have negative financial performance compared to other market players

This paper is restricted to unweighted and undirected networks and the possible extensions for weighted and directed networks are discussed in the end.

Table 2. Main network metrics

	Directed (figure 2)	Undirected (figure 3)
Node count:	35	35
Density:	0,048	0,096
No. of components	57	57
Diameter:	1	4
Average path length:	1.0	2.265
Clustering coefficient:	0.000	0.000
Modularity (main component)	0.099 Maximum	0.271
No. communities:	2	5
Degree distribution exponent:	2.93 ± 0.25	3,257

After manually examining the complex networks of the businesses with strong online presence in the travel, tourism, and hospitality from South Africa from 2022 to 2023, the degree of a node ($d_i(n_i)$) is its number of connections; the large businesses have a node of 19 using the force atlas. Isolated nodes can highlight potential bottlenecks and communication gaps that could hinder technology adaptability. The (directed) network graph of various travel, tourism, and hospitality business sizes in South Africa is visualised in Figure 3. Its network density is extremely low (0,048), indicating a very sparse network, with a substantial proportion of nodes at 35%. This sparseness is further confirmed by the small value of the average clustering coefficient, an indicator of local density (0.000). The Average Path Length refers to the average geodesic distance between any two nodes in the network. The average path length for Figure 2 is 1.0 whereas for Figure 3 is 4, indicating that there are four nodes (users) connected by one intermediary node. Under normal circumstances, on average, two nodes are connected by one intermediary node, hence the size of the average path length depends on the size and topology of the network.

The indirect network density was at 0,096 symbolising that the ratio of existing or all possible ties in the network between large, medium, and small businesses is strong. The clustering coefficient in Figure 6 is 0.000.

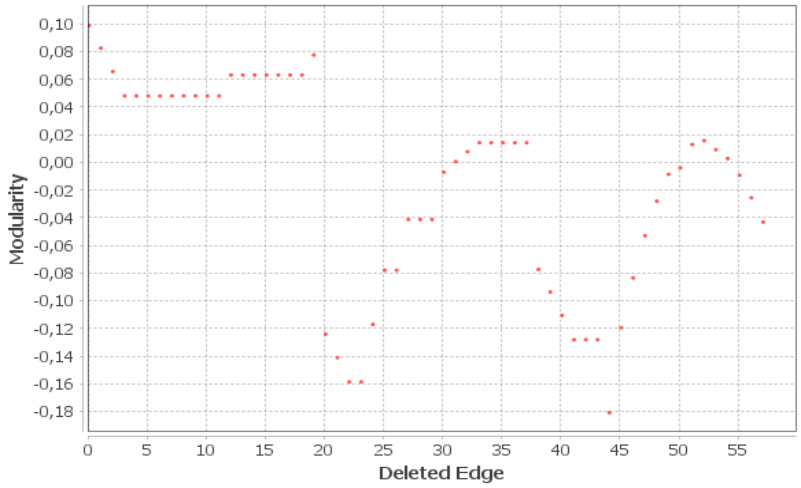

Figure 6: Modularity report

This means that although there is a mutual relationship between the businesses, there isn't an indication of the direction of the effect. The modularity (Figure 1) is 0.099, whereas for Figure 2 is 0.271. According to (Cherven, 2013), the modularity function provides a simple way of determining the number of communities present within a graph (in this case, the travel, tourism, and hospitality sectors). The maximum and the degree distribution exponent range between 2.93 ± 0.25 and 3,257. The clustering coefficient for both directed and undirected is 0.000 meaning that a central device (the hub) is connected to multiple other devices (the spokes).

Research implications: Policy, managerial, and ethical implication

This study contributes to the broader literature on social network analysis in the African continent using Gephi. Creativity is critical in the socio-economic tourism network to develop a competitive advantage in a destination. To promote the competitiveness of destination South Africa, online presence, online booking and payment, mobile-friendly, digital marketing, social media engagement, online reviews, reputation management, use of analytics and data, technology integration, digital customer service, innovation and upgrades, training and tech savviness, partnerships, and collaborations are critical across all levels (macro, meso, and micro). The results revealed interconnected relationships, communication patterns, and collaborative interaction patterns within the network of tourism businesses as best practices for digital technology adaptability to improve the destination's competitiveness and efficiency. Investing in digital information improves the destination's image to influence travel decisions. Therefore, increasing the number of users of the website and social media platforms is critical to improving the competence of small businesses in the sector. The scope of the study focused mainly on the top 57 businesses across different industries in travel, tourism, and hospitality in South Africa, making it difficult to identify businesses that are least adapting technology since the majority of the SMMEs were excluded from the search (based on the results from google search). Further studies are needed for inclusivity.

There is a need to build networks and socio-economic relationships with the communities for sustainability purposes. Understanding the technology ecosystem's important players and how they fit into the overall technology ecosystem can be aided by network analysis. The quality of the data obtained could be improved by getting permission for mining data from database warehouses. Moreover, the diverse industry players from the private and public sectors and mining email addresses are not easy without permission from the regulators. Furthermore, the POPI Act sets out the minimum standards regarding accessing and 'processing' any personal information belonging to another.

Conclusion

The adoption of digital technology has emerged as a key factor in promoting sustainable tourism worldwide as it can enhance destination marketing, improve the management of tourist resources, and enhance the visitor experience (El Archi, Benbba, Kabil & Dávid, 2023). Digital technologies, such as social media, mobile applications, and big data analytics, have an impact on the destination network and continue to revolutionise the way tourism destinations operate, communicate, and engage with tourists and stakeholders (El Archi et al. 2023). Digital adaptability is critical to strengthening collaboration within the tourism network.

Longitudinal studies that focus on the perspectives of other African countries are required to see how ICT can best be used to assist organisations in achieving competitiveness and reaching their future potential markets. Access to travel and tourism-related business information remains an influence on individuals' gaze, thoughts, and perceptions; hence, the perceived destination image is a key tool in travel decision-making. Networking between

buyers and sellers is not only costly but also is determined "by proximity and pre-existing ties." (Moons, 2012:149). Investing in the destination network and digital technology adaptability is necessary for businesses in the tourism value chain.

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