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Segmenting Digital Tourists: Perceptions, Preferences and Motivations

Abstract. The fundamental insight behind marketing segmentation is consumer diversity. Ignoring digital tourist heterogeneity can disadvantage tourism businesses and destinations. Using a multidimensional framework, this study segments digital tourists based on their perceptions, preferences, and motivations for digital marketing. Based on a survey administered to tourists (n=401), findings revealed two factors, each for perceptions and preferences and one factor for motives as the segmentation basis. Cluster analysis revealed three segments (the tech-savvy digital tourists, sceptical digital users, and balanced digital enthusiasts). Through the findings in terms of the identified segments, the study's contribution extends the segmentation theory by demonstrating the diversity of digital tourists, especially in digital engagement and trust in digital marketing, while enriching the understanding of digital consumer behaviour. The implications include advancing the understanding of tourist behaviour in the digital era. The study recommends incorporating demographic insights into digital marketing strategies to enhance tourist engagement and satisfaction.

Keywords: digital marketing, digital tourists, segmentation

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1. Introduction

Tourism, a cornerstone of the global economy, has suffered several crises during the last decades (Gössling et al., 2020). The industry urgently needs a transformation towards a new paradigm based on sustainability, a task in which technology is bound to play a fundamental role in revolutionising the tourism industry. Technological innovations have a long-standing history of supporting tourism development (Deb et al., 2022), promoting innovative marketing techniques (Chou et al., 2022), and creating new marketing avenues (Koohang et al., 2023). The tourism

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industry's reliance on information presents a significant opportunity for digitalisation (Zillinger, 2020), with digital marketing effectively facilitating communication between tourists, tourism stakeholders, and destination marketers (Trunfio & Della-Lucia, 2019). Successful marketing relies on market segmentation, which is the process of dividing a heterogeneous market into homogeneous groups of tourists with similar needs or characteristics (Dolnicar, 2022).

The importance of analysing market segments has been acknowledged for several decades as a crucial tool that can guarantee the success of tourist organisations in the competitive and complex global environment (Dyk et al., 2020; Kotler, 1983). The widespread and fast-paced development, adoption, and use of digital technologies after the Covid-19 pandemic have changed tourists' behaviours, particularly when it comes to their preferences for digital marketing tools and platforms, motivations for use, and perceptions of digital marketing platforms (Chamboko-Mpotaringa & Tichaawa, 2021; Şchiopu et al., 2016). Wearable and mobile devices, accompanied by advances in ICT infrastructure have given tourists instant access to information (Mirzaei et al., 2024), enabling personalised experiences through immersive content and providing 24/7 customer support (Tsai, 2022). The technology has presented tourism stakeholders and destination marketers with unprecedented opportunities to target specific market segments more effectively and efficiently to optimise their marketing efforts (Natocheeva et al., 2020). By understanding tourists' changing needs and preferences businesses can adjust marketing strategies to improve customer satisfaction and loyalty (Pandey et al., 2023). Consequently, tourism stakeholders increasingly invest in diversifying their offerings to cater to tourists' changing needs and expectations.

Through a comprehensive review of existing studies, we have identified significant research gaps. Previous studies mainly focus on the impact of digital marketing channels on customer purchasing behaviour in the tourism industry (see Dastane, 2020; Mathew & Soliman, 2021), managing digital campaigns for sustainable tourism destinations (Rodrigues et al., 2023), the effect of digital marketing tools on low-density tourism regions and demarketing tourism for sustainability (Hall & Wood, 2021). While these studies acknowledge that digital marketing is a necessary instrument for survival, they do not offer useful insights into tourist behaviour and different segments of tourists that destinations and marketers could benefit from. Although a few other studies (see Agyeiwaah & Bangwayo-Skeete, 2023; Jackman & Naitram, 2023; Li et al., 2023; Zhou & Chen, 2023) have attempted to close this gap, we argue that they failed to consider the progress that has been made in the field of digital technologies. In addition, tourist behaviour patterns keep changing under the influence of various factors such as experiences, technology, changing demographic profiles, preferences, sustainability concerns, evolving

travel motivations and perceptions (Chamboko-Mpotaringa & Tichaawa, 2023b; Nandasena et al., 2022; Santos et al., 2016).

One of the most salient gaps in segmentation research is failure to account for tourists' preferences, perceptions, motivations, socio-demographics and digital marketing strategies preferences. In an effort to bridge this gap, we set ourselves three specific objectives. The first was to explore tourists' perceptions of digital marketing, digital marketing preferences and motivations for using digital marketing services. The second was to segment digital tourists based on their perceptions, preferences, and motivations. The third was to identify differences in socio-demographic and digital marketing strategy preferences among segments of digital tourists.

2. Literature Review

2.1. Digital Marketing in Tourism

Technological advances have led to an increasingly competitive global marketplace (Solomon et al., 2022), in which many products and services can be obtained anywhere in the world, 24/7 (Stylos et al., 2021). The practical disappearance of territorial boundaries thanks to the internet has created a worldwide market and has levelled the playing field for all marketers. Online presence achieved through websites, travel applications, and social media platforms can stimulate brand awareness, boost sales and improve competitive advantage (Bassano et al., 2019). These developments have eliminated intermediaries, enabling marketers and customers to engage directly in real-time communications.

Digital platforms (e.g. websites and social media) enable tourists to give feedback and eliminate barriers like time, distance and location (Leung et al., 2019). Online information can be updated quickly, efficiently and at any time. Blogs, travel reviews and social media allow tourists to communicate with each other (Chen & Law, 2016; Molina et al., 2020). Consequently, it is increasingly difficult for service providers to deceive customers without being exposed online (Rao, 2021). Thanks to data mining, marketers can analyse tourists' travel behaviour history, profile tourists and recommend tourism destinations in order to offer tourists serviced that are more personalised (Leal et al., 2018). Artificial intelligence (AI), such as chatbots and text messaging customer support services, can provide fast, accurate, and 24/7 customer assistance. Given the growing variety of digital technologies, marketers need to keep up-to-date on tourists' changing digital marketing percep-

tions, preferences, and motivations in order to be able to provide online content when and where customers need it.

2.2. Digital Tourists

Insights from the literature documenting how information technology developments have changed the way tourists use technology during their trips have given rise to new conceptual frameworks for defining tourists in this context (Gajdošík, 2020). Previously, the focus was on the informed tourist, who was characterised as more demanding, experienced, and empowered, thanks to the possibilities offered by ICT. More recently, the proliferation of smartphones in everyday life and travel has been associated with the concept of the digital tourist, described as well-travelled and expecting personalised experiences. Digital tourists continue to play an increasingly important role as new technologies become available (immersive technologies, such as virtual reality, augmented reality, Metaverse, IoT, and cloud computing) (Gajdošík, 2022).

The concept of digital tourists has been identified as a distinct social category of sophisticated customers (González-Reverté & Liviano-Solís, 2019). They are defined as hybrid tourists who use different technologies and channels (Tiwari & Tripathi, 2023). Digital tourists own various digital devices, which allow them to engage at multiple digital touchpoints to purchase travel products. As a result, they are often literally a 'click away' from information (Moutinho & Vargas-Sanchez, 2018), which they can use to plan their trips independently without the help of agents (Gajdošík, 2022). Digital tourists do not shy away from sharing information and views (Alghizzawi et al., 2020) as they look for diverse tourism experiences. The availability of travel blogs and social media platforms, such as Facebook, Instagram, TikTok, and Twitter, has made it easy for digital tourists to access customer reviews before using a digital marketing platform (Tran, 2020). Online reviews are now the first source of information for many digital tourists. They play a role in content generation and are highly interactive (Starcevic & Konjikusic, 2018), forcing marketers to engage with them (Buhalis, 2021). As digital tourists become more informed, they are also eager to adopt and learn any new technology they perceive as useful (Gajdošík, 2022).

2.3. Theoretical framework

Since digital marketing platforms are now such a popular tool that tourists use to search for information about tourism services and share their opinions, market segmentation theory (MST) can be used to enhance the use of digital platforms and im-

prove the overall tourist experience, while the technology acceptance model (TAM) and updated DeLone and McLean Information System Success Model (DMISSM) (See Figure 1) can be applied to explain the dynamics and complexity of the use of technology in terms of tourists' perceptions, preferences and motivations.

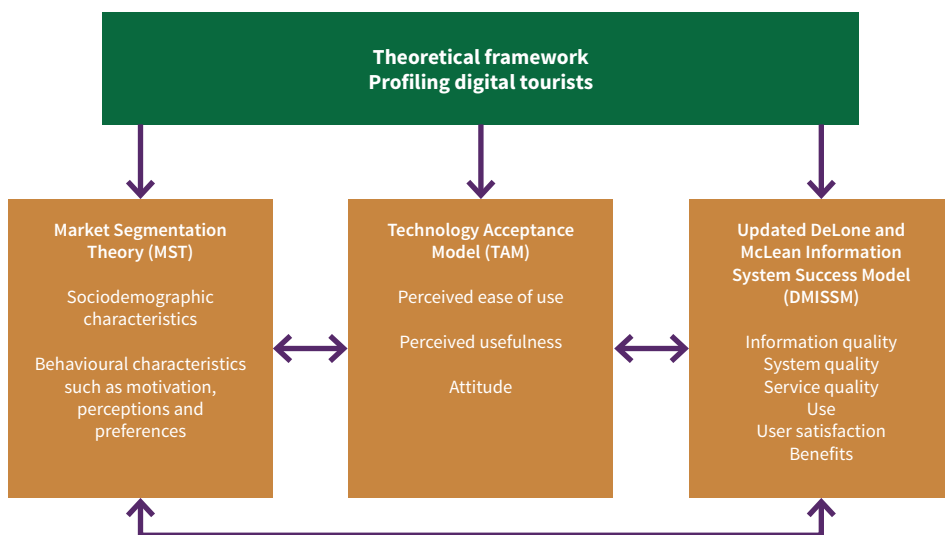


Fig. 1. Theoretical framework

Source: Authors

The existence of interrelationships between the theories, which are depicted by the arrows in Figure 1, means that different market segments may differ in their attitudes towards digital platforms and their perceptions regarding their ease of use and usefulness. While segmentation helps to tailor information systems, such as travel apps, to meet specific tourist needs and enhance the success of the system, knowledge about the information-seeking behaviour of different types of tourists can provide insights into preferences of different tourist segments regarding digital platforms (Chamboko-Mpotaringa & Tichaawa, 2023a). The success of digital marketing platforms depends on the extent to which they are widely recognised, accepted, adopted, and utilised, which in turn depends to the extent to which they meet and exceed tourists' expectations (Khasawneh et al., 2023).

2.4. Market Segmentation Theory (MST)

Introduced in 1956 by Wendell R. Smith, market segmentation has served as a tool to gain an in-depth understanding of the systematic heterogeneity of tourists (Dol-

nicar, 2022), which is used for targeted marketing and personalisation. The knowledge gained as a result of market segmentation helps marketers identify marketing opportunities and develop tailor-made products and services (Jeong et al., 2018). In the context of tourism, segmenting digital tourists involves analysing individuals' characteristics, behaviours, preferences, and needs with respect to various digital channels and platforms that tourists use to search, plan, and book travel-related products and services (Tiwari & Tripathi, 2023). Segmentation criteria can include sociodemographic and behavioural characteristics (like motivation, perceptions and preferences).

Previous segmentation studies have relied on geographic characteristics (Zhou & Chen, 2023), socio-demographic variables (Alén et al., 2017), psychological and behavioural factors, including motivation (Kruger et al., 2016; Nagy et al., 2021) and the benefit sought (Myburgh and Kruger, 2024). Technology has not only transformed tourists' expectations of destinations by providing them with a wealth of information and freedom from traditional rules (Tirado-Morueta et al., 2018) but also given rise to the emergence of different types of tourists (Gajdošík, 2020; Guerard et al., 2024). Visser (2021) argues that no single segmentation base is sufficient to accurately predict market behaviour (Visser, 2021). This is why the following study relies on multiple segmentation bases to profile digital tourists.

2.5. Technology Acceptance Model (TAM)

The technology acceptance model (Davis, 1989) is the most widely adopted and practical approach to investigate tourists' acceptance and usage of new technology (Liu & Zheng, 2023). TAM maps out two cognitive factors — perceived usefulness and ease of use — that determine how users form beliefs about potential benefits and challenges of a given technology. These factors shape tourists' attitudes and adaptive behaviours and ultimately determine the level of acceptance. TAM provides insights into how digital tourists' acceptance of technology influences their engagement and satisfaction. The easier and more useful technology is perceived to be, the more likely it is to be accepted, and consequently, be used more frequently.

Previous tourism studies have applied TAM in different contexts, e.g. to investigate the use of health QR codes in pandemic travel (Liu & Zheng, 2023), social media for outbound leisure travel (Singh & Srivastava, 2019), tourist behaviour and perceptions of digital technology platforms (Chamboko-Mpotaringa & Tichaawa, 2023; Soto et al., 2020) and sustainable marketing (Chou et al., 2022). Other scholars have applied TAM to explore tourists' motivations for using online streaming services (Camilleri & Falzon, 2021), investigate hyper-personalisation through

digital clienteling (Elsawy, 2023) and the effects of digital content marketing on tourism consumer behaviour (Mathew & Soliman, 2021).

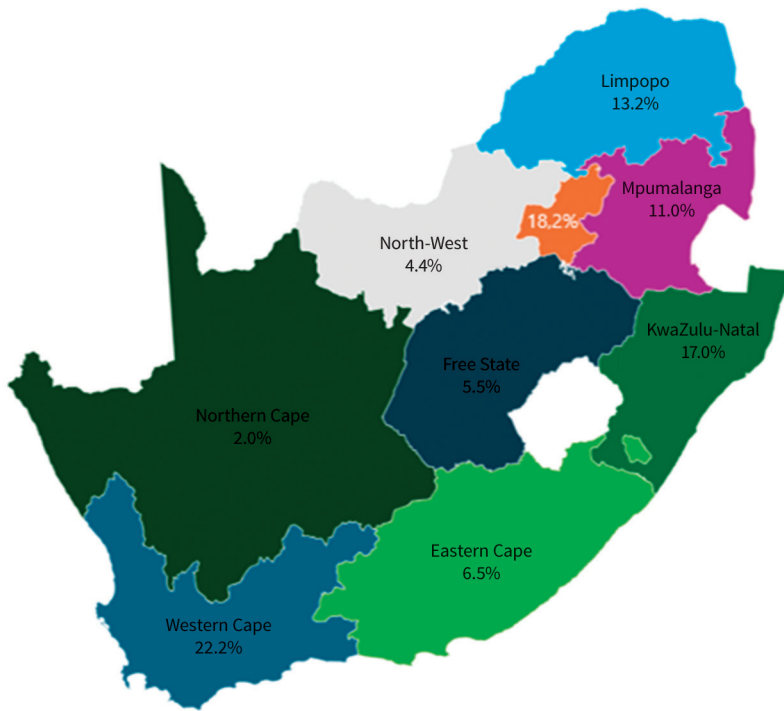
2.6. Updated DeLone and McLean Information System Success Model (DMISSM)

The updated DMISSM provides a theoretical foundation for a customer satisfaction philosophy, which seeks to identify the needs and expectations of customers and measure their perceptions. Based on six factors (information quality, system quality, service quality, system use / usage intention, user satisfaction, and net system benefit), the updated DMISSM is an extension of the original DeLone and McLean model, which measures the success of information systems (DeLone & McLean, 2003). In the context of tourism, the updated DMISSM can provide insight into how digital tourism platforms can successfully deliver value and satisfaction to tourists. The greater the overall quality of technologies, the more likely they are to mirror users' preferences and motivations (Isaac, 2019).

The updated DMISSM has been applied to evaluate e-commerce websites (Yel et al., 2020), investigate tourists' intention to use new technology (Albaom et al., 2021) and digital marketing's impact on destination image, sustainability and intention to visit (Rodrigues et al., 2023). All of these authors agree that the quality of the system, information, and service significantly influences system use (or usage intention) and user satisfaction.

3. Methods

Segmentation of digital tourists was conducted using quantitative data about tourists' perceptions, preferences, and motivations regarding digital marketing, which were collected in a face-to-face survey involving domestic tourists visiting South African tourist attractions as overnight tourists. Respondents were asked to complete the questionnaire in the presence of the researcher. Respondents had to be familiar with and have experience using or be influenced by digital marketing platforms such as social media (like Facebook, Twitter, TikTok and Instagram), websites and travel applications in their travel decisions. A non-probability convenience sample of tourists was selected to represent domestic tourist arrivals at major tourist attractions in each province, as identified by South African Tourism (South African Tourism, 2024). Figure 1 shows a map of provinces, together with a list of the main attractions and the counts of completed questionnaires in each province.



| Province and targeted attractions | Completed questionnaires | |
|---|--------------------------|------|
| | n=401 | in % |
| ■ Western Cape (Table Mountain, False Bay and Cape Point) | 89 | 22.2 |
| ■ Gauteng (National Botanical Gardens, Soweto and Apartheid Museum) | 73 | 18.2 |
| ■ KwaZulu Natal (Durban Beaches and Umhlanga Coast) | 68 | 17.0 |
| ■ Limpopo (Mapungubwe) | 53 | 13.2 |
| ■ Mpumalanga (Kruger National Park) | 44 | 11.0 |
| ■ Eastern Cape (Nelson Mandela Museum) | 26 | 6.5 |
| ■ Free State (Clarens and National Botanical Gardens) | 22 | 5.5 |
| ■ North West (Sun City) | 18 | 4.4 |
| ■ Northern Cape (The Big Hole) | 8 | 2.0 |

Fig. 1. Distribution of completed questionnaires

Source: Authors

A questionnaire consisting of 37 items designed to measure perceptions, preferences, and motivations was developed following a comprehensive literature review (Breda et al., 2019; Davis, 1989; González-Reverté & Liviano-Solís, 2019; Jeng et al., 2017; Singh & Srivastava, 2019). The degree of agreement with each statement

was measured on a five-point Likert scale (1 = “strongly disagree”, 2 = “disagree”, 3 = “neutral”, 4 = “agree”, and 5 = “strongly agree”).

After calculating descriptive statistics, the survey data were subjected to factor analysis, cluster analysis, Chi-square tests and ANOVA. Factor analysis was performed to identify factors underlying these dimensions. Reliability and mean values for the extracted factors were checked. Hierarchical and K-cluster analysis was performed to identify similar segments of tourists. The resulting cross-tabulations were analysed using chi-square tests and phi-values to determine if the differences between the segments were statistically significant. Finally, ANOVA was conducted to analyse differences between the three segments of respondents taking into account the identified factors, respondents’ socio-demographic characteristics and their preferences regarding digital marketing strategies.

4. Results

4.1. Profile of the Respondents

Table 1. Description of the sample (n=401)

| Demographic characteristics | | n | % |
|-----------------------------|--------------|-----|------|
| Sex | Female | 222 | 55.3 |
| | Male | 179 | 44.7 |
| Age | 18–30 | 144 | 35.9 |
| | 31–40 | 131 | 32.7 |
| | 41–50 | 67 | 16.7 |
| | 51–60 | 31 | 7.7 |
| | ≥61 | 28 | 7.0 |
| Monthly income | ≤R1000 | 93 | 23.3 |
| | R1001–5000 | 61 | 15.3 |
| | R5001–10000 | 43 | 10.7 |
| | R10001–15000 | 55 | 13.7 |
| | R15001–20000 | 52 | 12.9 |
| | ≥R20001 | 97 | 24.1 |

Note: Exchange rate as of 12 May 2025: 1 USD = 18.31 ZAR

Source: Authors

4.2. Results of Factor Analysis (Segmentation Variables)

Factor analysis has been widely used to identify underlying dimensions or constructs and calculate factor scores. Principal component analysis (PCA) was first applied to classify and identify three dimensions of the data: perceptions of digital

marketing, digital marketing preferences, and motives for using digital marketing. The results of principal component analysis and factor analysis are presented in Tables 2 and 3.

As for perceptions of digital marketing, Barlett's test of sphericity (8657.997, $p=.000$) and the KMO measure of sampling adequacy (.961) confirmed the validity of the constructs and adequacy of the sample size. Twenty-two items were reduced to two factors with an Eigenvalue greater than 1.0; no items were removed. The two factors — digital convenience and engagement and digital information credibility and accuracy — had an average inter-item correlation of 0.638 and 0.722 and mean scores of 4.0 and 3.9, respectively, accounting for about 70% of the variance. The factors were internally consistent since the Cronbach Alpha's were greater than the threshold of 0.70 (Nunnally, 1978).

Table 2. PCA results

| Dimensions / Factors / Items | Item loadings |
|--|---------------|
| PERCEPTIONS OF DIGITAL MARKETING | |
| Factor 1: Digital convenience and engagement | |
| Digital marketing tools and platforms enhance the quality of my trips | 0.861 |
| The information provided is easy to understand | 0.858 |
| Digital marketing tools and platforms are flexible | 0.857 |
| I find that digital marketing tools and platforms are user-friendly | 0.852 |
| Digital marketing tools and platforms are useful on my trips | 0.848 |
| Digital marketing tools and platforms enable me to have more convenient trips | 0.838 |
| I am familiar with using digital marketing platforms and tools | 0.836 |
| Content can be reached quickly and easily on digital marketing tools and platforms | 0.819 |
| Digital marketing tools are part of my lifestyle | 0.797 |
| There is a high chance of getting a response to an inquiry | 0.792 |
| I can access the information on digital marketing platforms anywhere in the world | 0.791 |
| Learning to use digital marketing tools and platforms would be easy for me | 0.789 |
| I feel involved when using interactive digital marketing tools | 0.786 |
| Digital marketing tools and platforms allow for instant feedback | 0.778 |
| Digital marketing platforms are available 24 hours per day | 0.774 |
| Digital marketing platforms have a high level of creativity (e.g., high visual media) | 0.773 |
| The information about tourism destinations, attractions, products and services, and recommendations is usually based on my interests | 0.768 |
| Digital marketing tools and platforms give me ideas about possible next trips | 0.679 |
| Factor 2: Digital information credibility and accuracy | |
| The information provided is trustworthy | 0.419 |
| The information provided is accurate and reliable | 0.378 |
| The information provided is comprehensive | 0.312 |

| Dimensions / Factors / Items | Item loadings |
|---|---------------|
| The information provided is updated | 0.302 |
| DIGITAL MARKETING PREFERENCES | |
| Factor 1: Digital tourism planning and research | |
| When planning my holiday, I prefer using/readings comments on consumer review sites | 0.733 |
| When planning my holiday, I prefer using/readings comments on blogs | 0.725 |
| When planning my holiday, I prefer using/readings comments on tourism destination websites and tourism businesses websites. | 0.703 |
| When planning my holiday, I prefer using/readings comments on online sharing economy platforms | 0.656 |
| When planning my holiday, I prefer using/readings comments on specialized search engines | 0.641 |
| Travel Applications | 0.605 |
| Factor 2: Social media engagement | |
| When planning my holiday, I prefer using/readings comments on social network sites | 0.568 |
| When planning my holiday, I prefer using/readings comments on video sharing sites | 0.496 |
| When planning my holiday, I prefer using/readings comments on photo-sharing sites | 0.445 |
| MOTIVES FOR USING DIGITAL MARKETING | |
| Factor 1: Digital marketing effectiveness | |
| Benefits derived from using digital marketing platforms | 0.901 |
| The ease at which I can use digital marketing platforms | 0.909 |
| The quality of information provided on digital marketing platforms | 0.860 |
| The quality of the digital marketing platforms | 0.882 |
| The quality of the service I receive when using digital marketing tools. | 0.865 |

Source: Authors

Table 3. FA results

| Dimension | Factors | |
|--|---------------------------------------|--|
| Perceptions of digital marketing | Digital convenience and engagement | Digital information credibility and accuracy |
| Eigenvalue | 14.196 | 1.96 |
| Variance explained | 64.526 | 5.438 |
| Average inter-item correlation | 0.638 | 0.722 |
| Reliability coefficient (Cronbach's alpha) | 0.969 | 0.912 |
| Mean | 4.0 | 3.9 |
| Digital marketing preferences | Digital tourism planning and research | Social media engagement |
| Eigenvalue | 4.056 | 1.250 |
| Variance explained | 45.063 | 13.889 |
| Average inter-item correlation | 0.427 | 0.552 |
| Reliability coefficient (Cronbach's alpha) | 0.817 | 0.788 |
| Mean | 3.4 | 3.7 |

| Dimension | Factors | |
|--|---------------------------------|--|
| Motives for using digital marketing | Digital marketing effectiveness | |
| Eigenvalue | 3.902 | |
| Total variance explained | 78.037 | |
| Average inter-item correlation | 0.725 | |
| Reliability coefficient (Cronbach's alpha) | 0.929 | |
| Mean (\bar{x}) | 4.0 | |

Notes: Items were measured on a 5-point Likert-type scale
(1 = strongly disagree, 3 = neutral, 5 = strongly agree).

Source: Authors

In the case of digital marketing preferences, the factor model also consists of two factors, each with an Eigenvalue greater than 1.0. Results of Barlett's test of sphericity (1228.304, $p = .000$) and the KMO measure of sampling adequacy (.848) confirmed the model's validity. The average inter-item correlation for factor 1 (digital tourism planning and research) was 0.427, and for factor 2 (social media engagement) — 0.552. The two factors had mean scores of 3.4 and 3.7, respectively, and accounted for about 59% of the variance. Values of Cronbach's Alpha were greater than the threshold of 0.70, confirming the factors' internal consistency.

As regards the last dimension, motives for using digital marketing, the model's validity and sampling adequacy were confirmed by Barlett's test of sphericity (1554.824, $p = .000$) and the KMO measure (.881), respectively. The corresponding five items were reduced to a model with one factor (digital marketing effectiveness), whose eigenvalue was greater than 1 and the mean score was 4.0. The average inter-item correlation was 0.725. The factor accounted for 78% of the variance and Cronbach Alpha's coefficient was greater than the threshold of 0.70.

4.3. Results of Cluster Analysis

Cluster analysis involving Ward's method with squared Euclidean distance revealed three clusters (segments) of tourists. Although there is no commonly accepted standard of cluster size, the number of respondents per cluster was significant (Sarstedt & Mooi, 2019). Results of ANOVA indicated that all five factors contributed to the differentiation between the three segments ($p < 0.001$) (Table 4).

The correlation was also tested between the socio-demographic variables and digital marketing strategy preferences of respondents in each segment. Age was found to make a statistically significant difference ($\chi^2 = 24.553$; $p = .001$) but had a small effect size ($\phi = 0.248$), while no statistical significance could be established for sex ($\chi^2 = 4.590$; $p = .101$), which also had a small effect size ($\phi = 0.108$). Digital marketing strategy preferences were also found to make a statistically significant

difference ($\chi^2=9.386$; $p=.045$) but had a small effect size ($\phi=0.153$). It can therefore be concluded that segmentation was based on the factors underlying respondents' perceptions, preferences, and motivations regarding digital technologies.

Table 4. Results of ANOVA, Chi-square and Phi-value multiple comparisons for the three segments of digital tourist based on perceptions, preferences, motivations, socio-demographics, and digital marketing strategies.

| Segment characteristics | S1: Tech-savvy digital tourists (n=253) | S2: Sceptical digital users (n=47) | S3: Balanced digital enthusiasts (n=101) | F-ratio | Sig. | Chi- square (χ^2) | Phi- value (ϕ) |
|--|---|--|--|---------|----------|--------------------------------|-----------------------------|
| Perceptions | | | | | | | |
| Digital convenience and engagement | 4.35 | 1.91 | 3.96 | 289.560 | 0.001*** | 456.685 | 1.069 |
| Digital information credibility and accuracy | 4.26 | 1.93 | 3.84 | 178.226 | 0.001*** | 302.000 | 0.869 |
| Preferences | | | | | | | |
| Digital tourism planning and research | 3.94 | 2.38 | 2.46 | 224.084 | 0.001*** | 317.852 | 0.891 |
| Social media engagement | 4.31 | 2.08 | 3.04 | 215.957 | 0.001*** | 299.035 | 0.865 |
| Motivations | | | | | | | |
| Digital marketing effectiveness | 4.36 | 1.87 | 4.06 | 263.270 | 0.001*** | 352.197 | 0.938 |
| Socio-demographic characteristics | | | | | | | |
| Age | | | | 6.676 | 0.001*** | $\chi^2=24.553$ | 0.248 |
| 18–30 | 66.7% | 11.8% | 21.5% | | | | |
| 31–40 | 72.5% | 9.2% | 18.3% | | | | |
| 41–50 | 58.2% | 10.4% | 31.4% | | | | |
| 51–60 | 35.5% | 12.9% | 51.6% | | | | |
| Over 60 | 44.4% | 22.3% | 33.3% | | | | |
| Sex | | | | 2.304 | 0.101 | $\chi^2=4.590$ | 0.108 |
| Female | 63.6% | 14.3% | 22.1% | | | | |
| Male | 62.5% | 8.5% | 29.0% | | | | |
| Monthly income | | | | 0.990 | 0.373 | $\chi^2=10.191$ | 0.167 |
| ≤R1000 | 55.3% | 14.1% | 30.6% | | | | |
| R1001–R5000 | 67.9% | 8.9% | 23.2% | | | | |
| R5001–10000 | 74.4% | 10.3% | 15.3% | | | | |
| R10001–R15000 | 68.0% | 6.0% | 26.0% | | | | |
| R15001–R20000 | 76.6% | 6.4% | 17.0% | | | | |
| ≥R20001 | 62.5% | 9.1% | 28.4% | | | | |
| Digital marketing strategy preferences | | | | 3.134 | 0.045* | $\chi^2=9.386$ | 0.153 |
| Image-based marketing strategies | 57.1% | 18.1% | 24.8% | | | | |
| Text-based marketing strategies | 62.1% | 9.3% | 28.6% | | | | |
| Video-based marketing strategies | 71.4% | 8.9% | 19.7% | | | | |

Notes: S1=Segment 1; S2=Segment 2; S3=Segment3; *** $p<.001$; ** $p<.01$; * $p<.05$;
Phi-value: small effect=0.1 Medium effect=0.3 and large effect=0.5;

Source: Authors

4.4. Segments of Digital Tourists

As can be seen in Table 4, the segment labelled 'Tech-savvy digital tourists' has a higher proportion of younger people, heavily clustered with more than 65% in the 18–30 and 31–40 age groups, who are highly engaged and responsive to digital content and marketing, as evidenced by relatively high mean scores on digital convenience and engagement (4.35), social media engagement (4.31), credibility and accuracy of digital information (4.26) and digital marketing effectiveness (4.36). The difference is statistically significant. This segment has a more balanced sex distribution (63.6% female, 62.5% male) and is well-represented across the various income levels. Tech-savvy digital tourists have a higher proportion of video-based (71.4%) marketing strategies.

The second segment, labelled 'Sceptical digital users', though diverse in age, is characterised by a relatively higher share of older people (22.2% of those aged over 60), who are considerably less responsive to digital marketing, as evidence by low mean scores for digital convenience and engagement (1.91), credibility and accuracy of digital information (1.93), digital tourism planning and research (2.38) and social media engagement (2.08). They are less influenced by digital marketing efforts (1.87). More sceptical digital users are females (14.3% vs 8.5%) and have lower income levels: a third of the respondents in this group report incomes that do not exceed R10000 (~546 USD). The scores for digital marketing preferences are generally low.

The third segment, labelled 'Balanced digital enthusiasts', is characterised by moderate mean scores for digital convenience and engagement (3.96) and digital information credibility and accuracy (3.84); they are reasonably engaged in digital tourism planning and research (2.46) and social media (3.04) and have high scores for digital marketing effectiveness (4.06). Relatively the largest share of balanced digital enthusiasts, with statistically significant difference are aged 51–60 and have the lowest income (31% of all respondents reporting monthly income below R1000). Their marketing preferences are varied and have no single format dominating (28.6% for text-based, 24.8% for image-based and 19.6% for video-based marketing preferences).

5. Discussion

The study's first objective was to explore tourists' perceptions of digital marketing, their digital marketing preferences and their motivations for using digital marketing. The results show that digital convenience, engagement, and digital information

credibility and accuracy are important attributes of tourists' perceptions of digital marketing platforms. This is consistent with the findings reported by Stylos et al. (2021), Zhou and Chen (2023) and Zillinger (2020), who emphasise the importance of information quality, highlighting the importance of digital tourists' perceptions of information quality. Our findings also align with those of Trunfio and Della-Lucia (2019), who emphasise the importance of engagement in the digital era. With respect to preferences, the respondents valued platforms that enable tourism planning, research and social engagement. These findings correlate with previous studies (Estriegana et al., 2019; Leung et al., 2019; Singh & Srivastava, 2019), which indicate that tourists use digital platforms to search for travel information to enhance their travel experiences. According to our study, the effectiveness of digital marketing is an important motivation factor for using digital marketing, which is a useful insight for managers (Camilleri & Falzon, 2021). In summary, the results of factor analysis justify the use of the identified factors as criteria for segmentation.

The second objective was to segment digital tourists based on the five factors underlying their perceptions, preferences, and motivations regarding digital marketing. As a result of cluster analysis three segments were identified: 'Tech-savvy digital tourists,' (by far the largest one) 'Sceptical digital users' (the smallest), and 'Balanced digital enthusiasts.' Figure 3 shows the main characteristics of each segment.

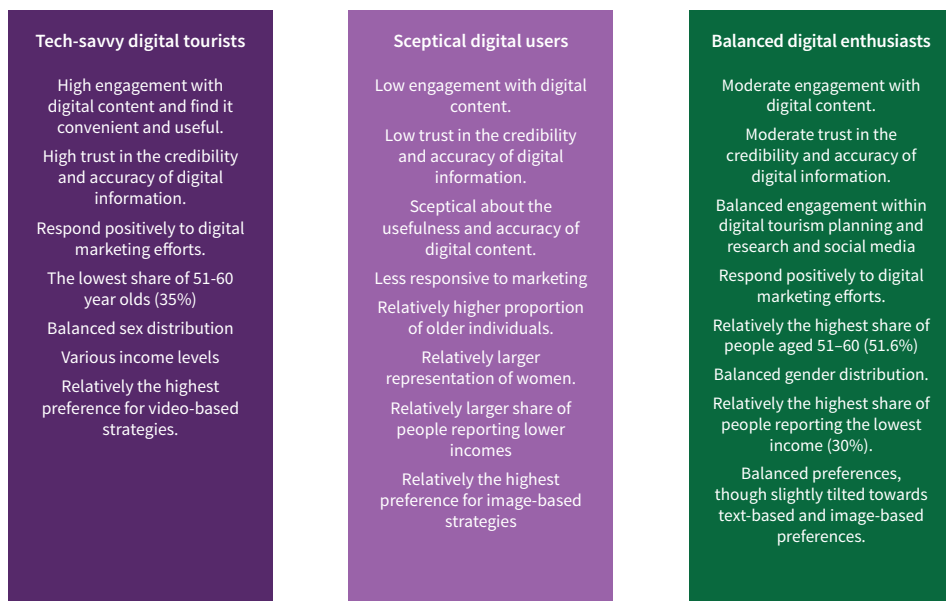


Fig. 3. Characteristics of three segments of digital tourists

Source: Authors

The third objective of the study was to identify differences in socio-demographic variables and preferences regarding digital marketing strategies among the three segments. Socio-demographic variables have been demonstrated as useful criteria for segmentation (Alén et al., 2017). Tech-savvy digital tourists are mainly the younger generation, while the sceptical digital tourists are predominantly older. This is consistent with previous studies, which have found age differences in the adoption and the use of technology resulting from the way users view technology (González-Reverté & Liviano-Solís, 2019). Marketers can increase the sophistication of their digital platforms to accommodate both digital natives and immigrants without complicating their use (Dhaigude et al., 2016).

Unlike the segments of 'tech-savvy digital tourists' and 'balanced digital enthusiasts', which are roughly balanced in terms of sex, the share of women among 'sceptical digital users' is larger, which may be a reflection of a digital divide between the sexes reported by Singh and Srivastava (2019) but is more likely to be due to sampling error. Income was found to have no effect on the use of digital technologies, which could be the result of their relative affordability (Chen & Lin, 2019). Some differences between the segments were identified with respect to digital marketing strategy preferences. Relatively more tech-savvy tourists were found to prefer video-based and digital marketing strategies, sceptical digital users showed a relatively greater preference for image-based digital marketing strategy and the relatively largest group of balanced digital enthusiasts (28.6%) preferred text-based strategies, which is not surprising given that this segment includes the relatively largest share of people aged 51–60. These findings highlight the importance of adapting messaging strategies to different market segments for optimal effectiveness (Molina et al., 2020). It should be pointed out, however, that Guerard et al. (2024) cautioned against overreliance on demographic variables for the purpose of segmentation.

6. Implications and Conclusion

The major theoretical contribution of the study is the use of a multidimensional theoretical framework involving segmentation theory, TAM and the updated DMISSM in the field of tourism. While previous literature has explored digital technology in tourism (Mirzaei et al., 2024) and in marketing (Pandey et al., 2023), there was a lack of segmentation based on tourists' perceptions, preferences, motivations and the level of engagement with digital marketing tools and platforms. Most studies segment users based on demographic or behavioural factors, neglect-

ing perceptions, preferences and motivational factors that influence the adoption, use and acceptance of technology and systems success. Our findings demonstrate the diversity of digital tourists, especially with respect to the level of digital engagement and trust in digital marketing. As regards TAM and DMSSM, the study refines their original assumptions by revealing segment-specific drivers of technology acceptance and system success. The identified segments: 'Tech-savvy digital tourists', 'Sceptical digital users', and 'Balanced digital enthusiasts' represent different perceptions, preferences and motivations regarding digital marketing, which influence digital content consumption and responsiveness to digital marketing. The study enriches existing knowledge about digital consumer behaviour.

On a more practical level, the findings emphasise the importance of applying differentiated digital marketing strategies to reach distinct heterogeneous segments that use digital platforms. For example, 'tech-savvy digital tourists' respond well to image and video-based strategies, have high levels of engagement with digital platforms and prioritise digital convenience. Marketers can use platforms with interactive features that offer immersive experiences, such as gamified digital communication strategies, virtual tours or artificial intelligence (AI)-enhanced itinerary builders. Marketing strategies for this segment should emphasise innovation, implying the need for investments in high-quality visual content. 'Sceptical digital users' show much less trust towards digital marketing. Given that digital tourists in this segment are more cautious and more concerned about data privacy, ethical issues, trust-building strategies are needed to attract them. This can be achieved through transparent, accurate information, user-friendly interfaces and hybrid marketing campaigns. Since the relatively largest share of 'balanced digital enthusiasts' are older, they tend to prefer of text content, which is something that study marketers need to take into account when design digital content. The digital marketing strategies should be more personalised and resonate with specific segments.

The study findings suggest the need to prioritise investment in digital platforms that yield the highest return on investment based on the behaviours and preferences of high-potential user segments. Tourism businesses such as accommodation providers, restaurants and tour operators should work with digital platform developers to improve their usability and flexibility in order to cater for the needs of 'balanced digital enthusiasts', to increase engagement and conversion rates.

Tourism businesses should ensure that they support efficient booking and real-time updates, while maintaining personal customer service. Thinking about the needs of tech-savvy tourists, accommodation businesses should prioritise self-service digital kiosks, mobile integration and chatbots, while providing an option for in-person, telephone or online assistance for sceptical digital users.

Policymakers should also consider the sex digital divide, some evidence of which was found to exist among sceptical digital users. Implementing policies promoting digital literacy and trust in digital information is critical to bridge the gap in this area. Furthermore, regulations ensuring the accuracy and credibility of digital content are crucial in maintaining consumer trust and engagement across all segments, fostering inclusivity in the digital tourism marketing environment.

7. Study Limitations

The study described in this article has certain limitations. Since it was based on data from a non-random sample of domestic tourists, its findings cannot be generalized to the population of all South African tourists, let alone to international tourists. Secondly, it must be remembered that the provinces differ considerably in terms of area, the number and type of major tourist attractions, which means they receive different numbers of tourist arrivals.

CRedit Authorship Contribution Statement

MCh-M: conceptualization, data curation, formal analysis, methodology, project administration, resources, software, validation, writing — original draft

TT: conceptualisation, supervision, visualisation, writing — review & editing

Declaration of Competing Interest

None.

References

- Agyeiwaah, E., & Bangwayo-Skeete, P. (2023). Segmenting and predicting prosocial behaviours among tourists: a latent class approach. *Current Issues in Tourism*, 27(15), 2462–2481. <https://doi.org/10.1080/13683500.2023.2229935>
- Albaom, M.A., Sidi, F., Jabar, M. A., Abdullah, R., Ishak, I., Yunikawati, N.A., Priambodo, M.P., Husen, J.H., Issac, O., & Al-Harasi, A.H. (2021). The impact of tourist's intention to use Web 3.0: A conceptual integrated model on TAM & DMISM. *Journal of Theoretical and Applied Information Technology*, 99(24).
- Alén, E., Losada, N., & de Carlos, P. (2017). Profiling the segments of senior tourists throughout motivation and travel characteristics. *Current Issues in Tourism*, 20(14), 1454–1469. <https://doi.org/10.1080/13683500.2015.1007927>

- Alghizzawi, M., Habes, M., & Salloum, S.A. (2020). The relationship between digital media and marketing medical tourism destinations in Jordan: Facebook perspective. *Springer Nature*, 1058, 438–448. https://doi.org/10.1007/978-3-030-31129-2_40
- Bassano, C., Barile, S., Piciocchi, P., Spohrer, J., Iandolo, F., & Fisk, R. (2019). Storytelling about places: Tourism marketing in the digital age. *Cities*, 87, 10–20. <https://doi.org/10.1016/j.cities.2018.12.025>
- Breda, Z., Pacheco, C., & Dinis, G. (2019). Future trends in the hospitality industry: An analysis from the consumers' point of view. *Tourism in Southern and Eastern Europe*, 5, 139–162. <https://doi.org/10.20867/tosee.05.9>
- Buhalis, D. (2021). Tourism Management and Marketing in Transformation: Preface. In *Encyclopedia of Tourism Management and Marketing* (pp. 1–18). Edward Elgar Publishing.
- Camilleri, M.A., & Falzon, L. (2021). Understanding motivations to use online streaming services: integrating the technology acceptance model (TAM) and the uses and gratifications theory (UGT). *Spanish Journal of Marketing — ESIC*, 25(2), 217–238. <https://doi.org/10.1108/SJME-04-2020-0074>
- Chamboko-Mpotaringa, M., & Tichaawa, T.M. (2021). Tourism digital marketing tools and views on future trends: A systematic review of literature. *African Journal of Hospitality, Tourism and Leisure*, 10(2), 712–726. <https://doi.org/10.46222/ajhtl.19770720-128>
- Chamboko-Mpotaringa, M., & Tichaawa, T.M. (2023a). Domestic tourists' perceptions of the intention to use digital marketing tools and platforms. *Geojournal of Tourism and Geosites*, 46(1), 9–18. <https://doi.org/10.30892/gtg.46101-995>
- Chamboko-Mpotaringa, M., & Tichaawa, T.M. (2023b). Sustainability of digital marketing strategies for driving consumer behaviour in the domestic tourism industry. *Studia Periegetica*, 43(3). <https://doi.org/10.58683/sp.570>
- Chen, S., & Lin, C. (2019). Understanding the effect of social media marketing activities: The mediation of social identification, perceived value, and satisfaction. *Technological Forecasting and Social Change*, 140, 22–32. <https://doi.org/10.1016/j.techfore.2018.11.025>
- Chen, Y.F., & Law, R. (2016). A review of research on electronic word-of-mouth in hospitality and tourism management. *International Journal of Hospitality and Tourism Administration*, 17(4), 347–372. <https://doi.org/10.1080/15256480.2016.1226150>
- Chou, S.F., Horng, J.S., Liu, C.H., Yu, T.Y., & Kuo, Y.T. (2022). Identifying the critical factors for sustainable marketing in the catering: The influence of big data applications, marketing innovation, and technology acceptance model factors. *Journal of Hospitality and Tourism Management*, 51, 11–21. <https://doi.org/10.1016/j.jhtm.2022.02.010>
- Dastane, O. (2020). Impact of Digital Marketing on Online Purchase Intention: Mediation Effect of Customer Relationship Management. *Journal of Asian Business Strategy*, 10(1), 142–158. <https://doi.org/10.18488/journal.1006.2020.101.142.158>
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, 13(3), 319–339. <https://doi.org/10.2307/249008>
- Deb, S.K., Nafi, S.M., & Valeri, M. (2022). Promoting tourism business through digital marketing in the new normal era: A sustainable approach. *European Journal of Innovation Management*, 27(3). <https://doi.org/10.1108/EJIM-04-2022-0218>
- DeLone, W.H., & McLean, E.R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Dhaigude, A.S., Kapoor, R., & Ambekar, S. (2016). A conceptual model for adoption of information communication technology in the travel and tourism industry. *Tourism Recreation Research*, 41(1), 49–59. <https://doi.org/10.1080/02508281.2015.1126919>
- Dolnicar, S. (2022). Segmentation. In *Encyclopedia of Tourism Management and Marketing* (pp. 21–23). Edward Elgar Publishing. <https://doi.org/10.4337/9781800377486>

- Dyk, A.V., Slabbert, E., & Tkaczynski, A. (2020). Segmenting tourists based on traditional versus social media usage and destination image perception. *Tourism, Culture and Communication*, 20(4), 189–206. <https://doi.org/10.3727/194341420X15905692660247>
- Elsawy, T. (2023). Beyond Passive Observance: Understanding Egyptian Domestic Tourists' Behaviour through Hyper-Personalised Digital Clienteling. *Pharos International Journal of Tourism and Hospitality*, 2(2), 1–15. <https://doi.org/10.21608/pijth.2023.256371.1007>
- Estriegana, R., Medina-Merodio, J.A., & Barchino, R. (2019). Student acceptance of virtual laboratory and practical work: An extension of the technology acceptance model. *Computers and Education*, 135, 1–14. <https://doi.org/10.1016/j.compedu.2019.02.010>
- Gajdošík, T. (2020). Smart tourists as a profiling market segment: Implications for DMOS. *Tourism Economics*, 26(6), 1042–1062. <https://doi.org/10.1177/1354816619844368>
- Gajdošík, T. (2022). Smart Tourists. In *Encyclopedia of Tourism Management and Marketing* (pp. 130–132). Edward Elgar Publishing.
- González-Reverté, F., & Liviano-Solís, D. (2019). We Are All Digital Tourists, but Are All Digital Tourists the Same? In *Sharing Economy and the Impact of Collaborative Consumption* (pp. 263–277). <https://doi.org/10.4018/978-1-5225-9928-9.ch014>
- Gössling, S., Scott, D., & Hall, C.M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1–20. <https://doi.org/10.1080/09669582.2020.1758708>
- Guerard, G., Gabot, Q., & Djebali, S. (2024). Tourism profile measure for data-driven tourism segmentation. *International Journal of Machine Learning and Cybernetics*. <https://doi.org/10.1007/s13042-024-02145-z>
- Hall, C.M., & Wood, K.J. (2021). Demarketing Tourism for Sustainability: Degrowing Tourism or Moving the Deckchairs on the Titanic? *Sustainability*, 13(3), 1585. <https://doi.org/10.3390/su13031585>
- Jackman, M., & Naitram, S. (2023). Segmenting tourists by length of stay using regression tree models. *Journal of Hospitality and Tourism Insights*, 6(1), 18–35. <https://doi.org/10.1108/JHTI-03-2021-0084>
- Jeng, M.Y., Pai, F.Y., & Yeh, T.M. (2017). The virtual reality leisure activities experience on elderly people. *Applied Research in Quality of Life*, 12(1), 49–65. <https://doi.org/10.1007/s11482-016-9452-0>
- Jeong, Y., Zielinski, S., Chang, J., & Kim, S. (2018). Comparing Motivation-Based and Motivation-Attitude-Based Segmentation of Tourists Visiting Sensitive Destinations. *Sustainability*, 10(10), 3615. <https://doi.org/10.3390/su10103615>
- Isaac, O., Aldholay, A., Abdullah, Z., & Ramayah, T. (2019). Online learning usage within Yemeni higher education: The role of compatibility and task-technology fit as mediating variables in the IS success model. *Computers and Education*, 136, 113–129. <https://doi.org/10.1016/j.compedu.2019.02.012>
- Khasawneh, M.S., Aladwan, K.S., Ababneh, S.F., Al-Makhadmah, I.M., & Alzoubi, M.I. (2023). Factors influencing the decision of tourist businesses to adopt digital marketing. *GeoJournal of Tourism and Geosites*, 47(2), 415–423. <https://doi.org/10.30892/gtg.47207-1039>
- Koohang, A., Nord, J.H., Ooi, K.-B., Tan, G.W.-H., Al-Emran, M., Aw, E.C.-X., Baabdullah, A.M., Buhalis, D., Cham, T.-H., Dennis, C., Dutot, V., Dwivedi, Y.K., Hughes, L., Mogaji, E., Pandey, N., Phau, I., Raman, R., Sharma, A., Sigala, M., ... Wong, L.-W. (2023). Shaping the Metaverse into Reality: A Holistic Multidisciplinary Understanding of Opportunities, Challenges, and Avenues for Future Investigation. *Journal of Computer Information Systems*, 63(3), 735–765. <https://doi.org/10.1080/08874417.2023.2165197>
- Kotler, P. (1983). *Principles of Marketing* (2nd ed.). Prentice-Hall, Inc.
- Kruger, M., Myburgh, E., & Saayman, M. (2016). A Motivation-Based Typology of Road Cyclists in the Cape Town Cycle Tour, South Africa. *Journal of Travel & Tourism Marketing*, 33(3), 380–403. <https://doi.org/10.1080/10548408.2015.1064057>

- Leal, F., Malheiro, B., & Burguillo, J.C. (2018). *How technology enhances the tourist experience: A survey*. <https://doi.org/10.13140/RG.2.2.29880.80641>
- Leung, X.Y., Sun, J., & Bai, B. (2019). Thematic framework of social media research: state of the art. *Tourism Review*, 74(3), 517–531. <https://doi.org/10.1108/TR-05-2018-0058>
- Li, L., Pei, Z., Li, Q., Hao, F., Chen, X., & Chen, J. (2023). Identifying tourism attractiveness based on intra-destination tourist behaviour: evidence from Wi-Fi data. *Current Issues in Tourism*, 27(19), 3131–3149. <https://doi.org/10.1080/13683500.2023.2252562>
- Liu, S., & Zheng, D. (2023). Impacts of tourists' trust, perception and acceptance of health quick response technology on responsible pandemic travel behaviours. *Journal of Hospitality and Tourism Technology*, 14(2), 278–294. <https://doi.org/10.1108/JHTT-11-2021-0330>
- Mathew, V., & Soliman, M. (2021). Does digital content marketing affect tourism consumer behavior? An extension of technology acceptance model. *Journal of Consumer Behaviour*, 20(1). <https://doi.org/10.1002/cb.1854>
- Mirzaei, R., Chakerreza, S., & Tabrizi, N. (2024). The Role of Virtual Reality in Tourism Marketing: Virtual Destination Image Formation and Behavioral Intentions. *International Journal of Hospitality & Tourism Administration*, 1–23. <https://doi.org/10.1080/15256480.2024.2386702>
- Molina, A., Gómez, M., Lyon, A., Aranda, E., & Loibl, W. (2020). What content to post? Evaluating the effectiveness of Facebook communications in destinations. *Journal of Destination Marketing and Management*, 18. <https://doi.org/10.1016/j.jdmm.2020.100498>
- Moutinho, L., & Vargas-Sanchez, A. (2018). *Strategic Management in Tourism* (3rd ed.). CABI.
- Myburgh, E., & Kruger, M. (2024). The sky is the limit: a motivation and event attribute typology of trail runners. *Managing Sport and Leisure*, 29(1), 70–89. <https://doi.org/10.1080/23750472.2021.1987302>
- Nagy, K.Z., Tóth, K., Gyömbér, N., Tóth, L., & Bánhid, M. (2021). Motives underlying water sport tourist behaviour: a segmentation approach. *World Leisure Journal*, 63(1), 109–127. <https://doi.org/10.1080/16078055.2021.1888002>
- Nandasena, R., Morrison, A.M., & Coca-Stefaniak, J.A. (2022). Transformational tourism — a systematic literature review and research agenda. *Journal of Tourism Futures*, 8(3), 282–297. <https://doi.org/10.1108/JTF-02-2022-0038>
- Natocheeva, N., Shayakhmetova, L., Bekkhozhaeva, A., Khamikhan, N., & Pshembayeva, D. (2020). Digital Technologies as a Driver for the Development of The Tourism Industry. *E3S Web of Conferences*, 159, 04002. <https://doi.org/10.1051/e3sconf/202015904002>
- Nunnally, J.C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.
- Pandey, S., Pandey, N., & Chawla, D. (2023). Market segmentation based on customer experience dimensions extracted from online reviews using data mining. *Journal of Consumer Marketing*, 40(7), 854–868. <https://doi.org/10.1108/JCM-10-2022-5654>
- Rao, N. (2021). *Management theory review*. Management Theory: Management for Effectiveness, Efficiency and Excellence. <http://nraomtr.blogspot.com/2014/06/philip-kotler-on-digital-marketing-2013.html>
- Rodrigues, S., Correia, R., Gonçalves, R., Branco, F., & Martins, J. (2023). Digital Marketing's Impact on Rural Destinations' Image, Intention to Visit, and Destination Sustainability. *Sustainability*, 15(3), 2683. <https://doi.org/10.3390/su15032683>
- Santos, M.C., Veiga, C., & Águas, P. (2016). Tourism services: facing the challenge of new tourist profiles. *Worldwide Hospitality and Tourism Themes*, 8(6), 654–669. <https://doi.org/10.1108/WHATT-09-2016-0048>
- Sarstedt, M., & Mooi, E. (2019). *Concise guide to market research: The process, data, and methods using IBM SPSS statistics* (3rd ed.). Springer.
- Șchiopu, A.F., Pădurean, A.M., Țală, M.L., & Nica, A.M. (2016). The influence of new technologies on tourism consumption behavior of the millennials. *Amfiteatru Economic*, 18(10).

- Singh, S., & Srivastava, P. (2019). Social media for outbound leisure travel: a framework based on Technology Acceptance Model (TAM). *Journal of Tourism Futures*, 5(1), 43–61. <https://doi.org/10.1108/JTF-10-2018-0058>
- Smith, W. (1956). Product differentiation and market segmentation as alternative marketing strategies. *Journal of Marketing*, 21(1), 3–8.
- Solomon, E.N.-A., Adu-Debrah, L.K., & Braimah, S.M. (2022). Promoting tourism destinations through storytelling. In *Global perspectives on strategic storytelling in destination marketing* (pp. 117–135). IGI Global.
- Soto, J.B., Ocampo, D.T., Colon, L.B., & Oropesa, A.V. (2020). Perceptions of ImmerseMe virtual reality platform to improve English communicative skills in higher education. *International Journal of Interactive Mobile Technologies*, 14(7), 4–19. <https://doi.org/10.3991/ijim.v14i07.12181>
- South African Tourism. (2024). *Places to go*. South African Tourism. <https://www.southafrica.net/gl/en/travel/category/places-to-go>
- Starcevic, S., & Konjikusic, S. (2018). Why millennials as digital travelers transformed marketing strategy in tourism industry. In *International Thematic Monograph Tourism in Function of Development of the Republic of Serbia: Tourism in the Era of Digital Transformation* (pp. 221–240). University of Kragujevac.
- Stylos, N., Zwiegelaar, J., & Buhalis, D. (2021). Big data empowered agility for dynamic, volatile, and time-sensitive service industries: The case of tourism sector. *International Journal of Contemporary Hospitality Management*, 33(3), 1015–1036.
- Tirado-Morueta, R., Aguaded-Gómez, J.I., & Hernando-Gómez, Á. (2018). The socio-demographic divide in internet usage moderated by digital literacy support. *Technology in Society*, 55, 47–55. <https://doi.org/10.1016/j.techsoc.2018.06.001>
- Tiwari, M., & Tripathi, S. (2023). Application of Clustering Algorithms on Tourism Industry. *International Journal for Research in Applied Science and Engineering Technology*, 11(5). <https://doi.org/10.22214/ijraset.2023.51380>
- Tran, L.T.T. (2020). Online reviews and purchase intention: A cosmopolitanism perspective. *Tourism Management Perspectives*, 35, 100722. <https://doi.org/10.1016/j.tmp.2020.100722>
- Trunfio, M., & Della-Lucia, M. (2019). Engaging destination stakeholders in the digital era: The best practice of Italian regional DMOS. *Journal of Hospitality and Tourism Research*, 43(3), 349–373. <https://doi.org/10.1177/1096348018807293>
- Tsai, S.P. (2022). Investigating metaverse marketing for travel and tourism. *Journal of Vacation Marketing*, 30(3). <https://doi.org/10.1177/13567667221145715>
- Visser, H. (2021). The Prevalence of Market Segmentation Research in the Tourism Industry in Africa. *African Journal of Hospitality, Tourism and Leisure*, 10(2), 500–510.
- Yel, M.B., Sfenrianto, S., & Anugrah, R.D. (2020). Using DeLone and McLean model for evaluating an e-commerce website. *IOP Conference Series: Materials Science and Engineering*, 725(1), 012108. <https://doi.org/10.1088/1757-899X/725/1/012108>
- Zhou, X., & Chen, Z. (2023). Destination attraction clustering: segmenting tourist movement patterns with geotagged information. *Tourism Geographies*, 25(2–3), 797–819. <https://doi.org/10.1080/14616688.2021.2006769>
- Zillinger, M. (2020). Hybrid tourist information search German tourists' combination of digital and analogue information channels. *Journal of Tourism and Hospitality Research*, 20(4), 510–515. <https://doi.org/10.1177/1467358420935164>

Segmentacja turystów na podstawie ich percepcji, preferencji i motywacji dotyczących technologii cyfrowych

Streszczenie. Głównym założeniem segmentacji rynku jest lepsze poznanie specyfiki różnych grup konsumentów. Ignorowanie różnic występujących wśród turystów korzystających z narzędzi cyfrowych może być niekorzystne dla przedsiębiorstw i destynacji turystycznych. Opierając się na wielorakich założeniach teoretycznych, autorzy badania dokonali klasyfikacji turystów korzystających z technologii cyfrowych na potrzeby marketingu cyfrowego, biorąc pod uwagę ich percepcje, preferencje i motywacje dotyczące technologii cyfrowych. Na podstawie analizy czynnikowej danych ankietowych zebranych od 401 turystów z RPA, zidentyfikowano trzy czynniki związane z percepcją, preferencjami i motywacją. Czynniki te posłużyły jako kryteria segmentacji. W wyniku analizy skupień wyodrębniono trzy grupy turystów: biegle posługujących się technologią cyfrową, sceptycznie nastawionych i umiarkowanych entuzjastów. Przedstawione wyniki stanowią wkład do badań w dziedzinie segmentacji rynku poprzez wskazanie różnic między turystami, jeśli chodzi o ich postawy wobec technologii cyfrowych, zwłaszcza pod względem stopnia ich wykorzystania i zaufania do marketingu cyfrowego.

Słowa kluczowe: marketing cyfrowy, turyści cyfrowi, segmentacja



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