

Digital Knowledge Sources and Technology Adoption in Regional Tourism Communication Across Generations

Alexandra Ďurovová and Denisa Jánošová

University of Ss. Cyril and Methodius in Trnava, Slovakia

alex.durovova@gmail.com

denisa.janosova@ucm.sk

Abstract: Digitalisation is significantly transforming the way users acquire, evaluate, and utilise information about tourist destinations. The marketing communication of regions is increasingly based on digital communication channels, which function as sources of knowledge and play an important role in shaping the decision-making processes of potential visitors. The aim of this paper is to examine the use of digital information sources related to Slovak regions, the perceived quality of digital communication, and the impact of digital technologies on the motivation to visit. At the same time, the study focuses on identifying generational differences in user behaviour, while also considering environmental orientation as a complementary factor influencing trust and decision-making. The empirical part of the paper is based on a quantitative study conducted through a questionnaire survey on a sample of 590 respondents. The questionnaire focused on three main areas: sources of information about regions, evaluation of digital communication quality (including trustworthiness, timeliness, clarity, visual attractiveness, and motivational effect), and attitudes towards innovative digital technologies such as interactive maps, virtual tours, chatbots, and augmented reality tools. The data were analysed using descriptive statistics and comparative analysis, with particular attention given to generational differences. The findings indicate that social media represent the dominant source of information, particularly among younger users, while older respondents rely more on search engines and personal recommendations. Despite relatively high evaluations of digital communication quality, its ability to motivate actual visitation remains limited. A similar pattern is observed in the case of digital technologies, where tools offering practical value in the planning process show a stronger impact than visually appealing but less applicable solutions. Environmental information appears to strengthen trust in a region but does not function as an independent driver of decision-making. From a knowledge management perspective, the paper interprets regional digital communication as a system of knowledge transfer, whose effectiveness depends on the extent to which the information provided can be applied within users' decision-making processes. The study thus contributes to a better understanding of the role of digital knowledge sources and technologies in regional tourism communication and offers implications for improving the effectiveness of digital communication strategies.

Keywords: Digital knowledge sources, Generational differences, Online information quality, Technology adoption, Tourism communication

1. Introduction

Digitalisation is fundamentally transforming the way users acquire, process, and utilise information in the decision-making process related to visiting destinations. In an environment characterised by information abundance, the key challenge is no longer access to information, but rather its selection, interpretation, and ability to be transformed into actionable knowledge. Regions and destination management organisations therefore face the challenge of designing digital communication in a way that goes beyond providing information and actively supports the decision-making processes of potential visitors. Although existing research highlights the growing importance of digital channels, social media, and technological tools in tourism, less attention has been paid to how these elements contribute to the creation of usable knowledge and what mechanisms underlie their translation into actual decision-making. A research gap thus remains in understanding the relationship between the availability of digital information and its practical applicability in users' decision-making processes. This paper seeks to explain how digital information sources, the quality of digital communication, and digital technologies shape users' decisions to visit regions, considering generational differences in behaviour. It also considers the role of environmentally oriented content as a factor influencing trust and the evaluation of regions. Based on a quantitative study conducted on a sample of 590 respondents, the findings suggest that decision-making is not determined by the mere presence of digital channels or technological solutions, but by the extent to which the information provided is perceived as practically useful. From a knowledge management perspective, the paper contributes by interpreting regional digital communication as a system of knowledge transfer in which effectiveness is defined not by the form of communication, but by its ability to support understanding and the application of information in users' decision-making processes.

2. Theoretical Background

Digitalisation is fundamentally transforming the architecture of information acquisition and processing, reshaping the way users approach travel planning (Gvaramadze, 2022). Within the digital environment, a

complex ecosystem of knowledge sources is emerging, in which search engines, social media, and user-generated content (UGC) play a dominant role. UGC, in particular, is often perceived as a more authentic and trustworthy source of information compared to official marketing communication, thereby significantly influencing the perception of destinations (Al Fajar et al, 2025). From the perspective of user behaviour, a key distinction can be observed between active and passive information acquisition (Cai, 2019). Social media primarily serve a discovery function, enabling users to passively consume content and form initial impressions of destinations through visual and narrative stimuli (Al Fajar et al, 2025). In contrast, search engines represent a tool for goal-oriented information seeking, through which users systematically gather specific and factual data necessary for planning (Cai, 2019; Al Fajar et al, 2025). This duality between discovery and targeted search also reflects broader differences in digital behaviour, which are strongly shaped by generational characteristics (Ivancsóné Horváth et al, 2025).

The quality of digital communication represents another key determinant of how information is interpreted and used. In the literature, perceived online information quality (Online Information Quality – OIQ) is typically conceptualised through attributes such as trustworthiness, timeliness, clarity, and the overall attractiveness of content (Sophiandanie and Untoro, 2025; Indriyani et al, 2024). To better understand its impact, it is essential to distinguish between the cognitive and affective dimensions of communication. The cognitive dimension, reflected in the informational value of content, contributes to reducing uncertainty and supports rational information processing (Sutrisno et al, 2024; Sophiandanie and Untoro, 2025). In contrast, the affective dimension, primarily linked to visual appeal and aesthetic design, influences users' emotional responses and acts as a trigger for interest and subsequent behavioural engagement (Sutrisno et al, 2024; Indriyani et al, 2024). From this perspective, information quality alone is not sufficient to drive decision-making behaviour unless it is complemented by elements that stimulate emotional engagement.

In this context, digital technologies play an increasingly important role as tools that facilitate knowledge transfer and support decision-making processes (Alford and Jones, 2020; Quiroz-Fabra et al, 2022). Their significance lies not in technological novelty itself, but in their ability to translate information into a form that is meaningful and usable for the user. From a functional perspective, these technologies can be broadly distinguished into utilitarian tools, which are designed to help users accomplish specific tasks (such as maps, search engines, or booking systems), and hedonic tools, which aim to create engaging experiences and foster user involvement (such as AR/VR or gamified applications) (Quiroz-Fabra et al, 2022; Zhang, 2025). The effectiveness of these tools depends largely on how useful and easy to use they are perceived to be, with technology adoption closely tied to their ability to address users' actual needs within the decision-making process (Zhang, 2025).

The way digital sources and technologies are used also varies across generations. Generation Z tends to favour visual and easily accessible forms of content, relies more on passive consumption through social media, and places a relatively high level of trust in influencers (Damanik et al, 2022; Orabi, 2022). In contrast, Generation Y adopts a more hybrid approach, combining active information search with the use of social media and online reviews, while also taking on an active role in content creation (Dabija et al, 2018; Bravo, 2020). Generation X approaches information more cautiously, placing greater emphasis on trustworthiness and structured evaluation, and tends to rely more on traditional sources and personal recommendations (Dabija et al, 2018; Ivancsóné Horváth et al, 2025). These generational differences therefore reflect not only variation in preferred channels, but more importantly differences in expectations, cognitive approaches, and the ways in which information credibility is assessed.

Within digital communication, environmentally oriented content is gaining particular importance as it serves as a signal of responsibility and trustworthiness and contributes to a more positive perception of a destination (Martinez-Navalon et al, 2020). Such content can strengthen users' trust and foster emotional connections; however, its influence on actual decision-making remains limited. Environmental factors can therefore be understood primarily as a supportive element shaping perception and credibility, rather than as a primary determinant of decision-making behaviour (Martinez-Navalon et al, 2020).

3. Methodology

The empirical part of the paper is based on a quantitative study conducted using a questionnaire survey on a sample of 590 respondents. Data collection took place between mid-January and mid-March 2026. The sample included respondents from different generational groups, with Generation Z being strongly represented ($n = 455$), followed by Generation Y ($n = 58$) and Generation X ($n = 69$). A small number of respondents also belonged to Generation Alpha ($n = 4$) and the Silent Generation ($n = 4$); however, due to their limited representation, these groups were not included in the comparative analysis. Given the uneven distribution across generational groups,

the data were analysed using percentage shares within each group, with the focus placed on relative differences rather than absolute frequencies. The questionnaire covered three main areas: (1) sources of information about regions, (2) evaluation of digital communication quality, including trustworthiness, timeliness, clarity, visual attractiveness, and motivational effect, and (3) assessment of innovative digital technologies such as virtual tours, augmented reality, chatbots, influencer marketing, and interactive maps. An additional item measuring respondents' environmental orientation was included after the main data collection and is interpreted as a supplementary variable. Data were collected through an online questionnaire created in Google Forms and distributed via several digital communication channels, particularly social media, electronic communication, and the ShareQuest platform, which operates on a reciprocal respondent exchange basis. While respondents from Generations Y and X were reached primarily through online distribution channels, a substantial proportion of Generation Z respondents completed the questionnaire within an academic environment, particularly among university students with an interest in regional development and related topics. The data were processed using descriptive statistics, comparative analysis, and a chi-square test of independence to examine the relationship between generational affiliation and the use of social media as a source of regional information. As the study is based on a non-probability sample with an uneven generational structure, the findings should be interpreted with caution, particularly in the context of intergenerational comparisons. However, the analysis focuses primarily on relative percentages and average evaluations within individual generational groups rather than absolute frequencies, which helps reduce the effect of unequal group sizes on the interpretation of the results. Nevertheless, future research should employ more balanced sampling strategies to strengthen the comparability and generalisability of the findings.

4. Results

4.1 Communication Channels Used When Obtaining Information About Regions

The findings indicate a clear dominance of digital platforms, with social media emerging as the most frequently used source of information about regions (68.1%). As illustrated in Figure 1, a closer examination of generational differences reveals a distinct pattern in information behaviour. While Generation Z relies heavily on social media (75.8%), its importance declines considerably among Generation X (23.2%). In contrast, search engines show relatively stable usage across generations (Gen Y: 55%, Gen X: 52%, Gen Z: 44%), suggesting differences not only in preferred communication channels but also in the way information is approached and processed. Older respondents appear to engage more actively in targeted information search, whereas younger users tend to rely more on passive exposure to content distributed through digital platforms and social media environments.

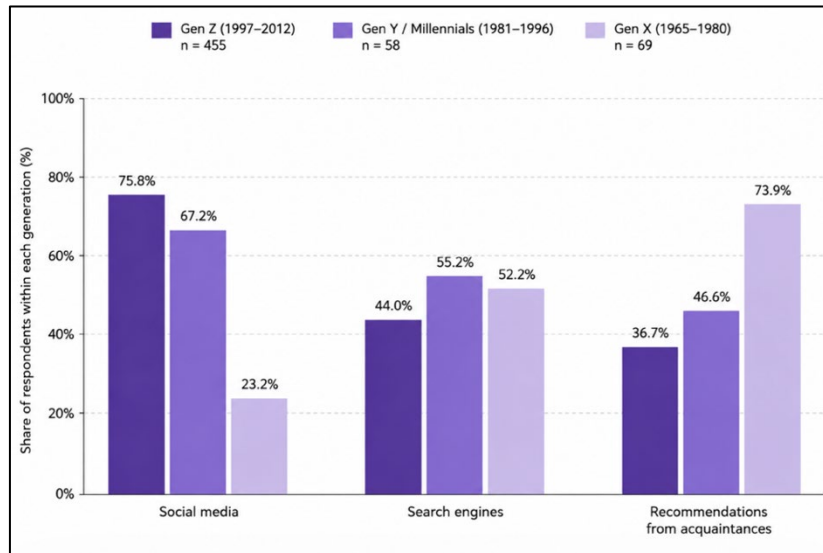


Figure 1: Use of information sources about regions by generational groups

A similarly pronounced generational difference can be observed in the use of recommendations from acquaintances, which are relied upon by as many as 73.9% of respondents from Generation X, compared to 46.6% in Generation Y and 36.7% in Generation Z. These findings point to a gradual shift from interpersonal and experience-based information sources towards digitally mediated forms of content consumption, particularly among younger generations. At the same time, the relatively stable position of search engines across all groups

suggests that active information verification remains an important component of the decision-making process regardless of generational affiliation. To further examine the relationship between generation and the use of social media as a source of regional information, a chi-square test of independence was conducted. The analysis confirmed a statistically significant association between generational affiliation and social media use ($\chi^2 = 77.30$, $df = 2$, $p < 0.001$), supporting the existence of significant generational differences in digital information behaviour.

4.2 Evaluation of the Quality of Regional Digital Communication

Respondents assessed the quality of digital communication across several attributes using a Likert scale ranging from 1 to 5, where 1 indicated a very low level and 5 a very high level. As shown in Figure 2, the highest rating was assigned to the trustworthiness of content (3.49), followed by the timeliness of information (3.35), clarity (3.29), and visual attractiveness (3.29). The lowest score was given to the ability of digital communication to motivate a visit (3.12). These findings indicate a noticeable discrepancy between the informational and persuasive functions of regional digital communication. While respondents generally perceive regional communication as relatively credible and informative, its ability to stimulate behavioural intention and translate information into actual travel motivation appears to be more limited. The results further suggest that the perceived quality of information alone may not be sufficient to influence destination-related decision-making. Although respondents evaluate informational attributes positively, these evaluations do not automatically translate into stronger motivational effects. This may indicate that users distinguish between the informational usefulness of digital communication and its capacity to create emotional engagement or stimulate action. In this context, digital communication appears to function more effectively as a source of orientation and information verification than as a direct persuasive mechanism influencing travel behaviour.

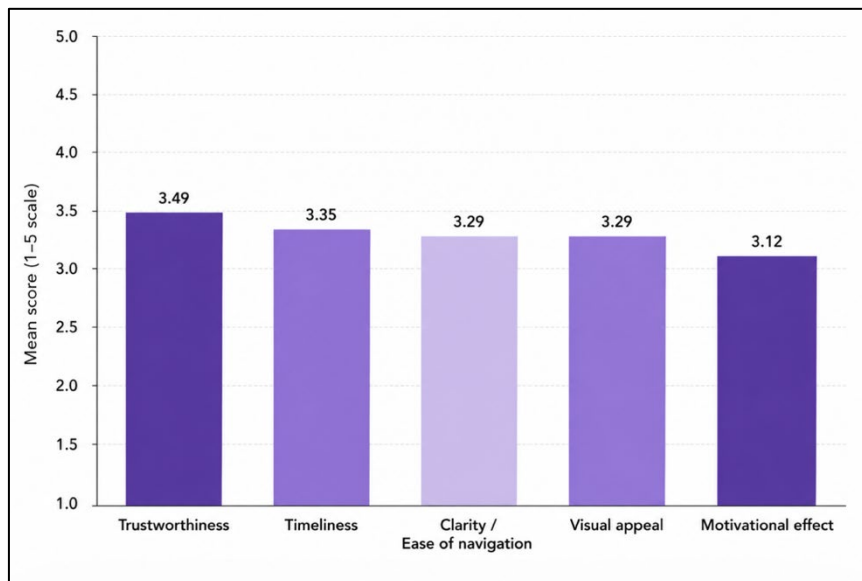


Figure 2: Evaluation of Digital Communication Quality Attributes

Generational differences also point to distinct patterns in communication preferences and information evaluation. Generation Z places greater emphasis on clarity and trustworthiness, suggesting a preference for accessible and easily interpretable content within fast-paced digital environments. Generation Y attributes greater importance to visual attractiveness, which may reflect stronger sensitivity to aesthetic and experiential dimensions of digital communication. In contrast, Generation X tends to evaluate several communication attributes more critically, potentially reflecting a more cautious and verification-oriented approach to online information.

4.3 Impact of Digital Innovations on Motivation to Visit Regions

The findings suggest that the motivational potential of digital tools is not determined primarily by technological novelty itself, but rather by their perceived practical usefulness within the decision-making process. As illustrated in Figure 3, experiential events (3.97) and interactive maps with personalised recommendations (3.78) received the highest evaluations, as they combine informational value with direct practical applicability. These tools appear to support users not only in discovering destinations, but also in translating information into

concrete planning and decision-making activities. On the other hand, tools that rely primarily on visual appeal or entertainment value, such as AR filters (2.51) and social media challenges (2.91), demonstrate a noticeably lower motivational effect. The findings therefore suggest that technological attractiveness alone does not necessarily increase users' intention to visit a destination. Rather, the effectiveness of digital innovations seems to depend on their ability to reduce uncertainty, simplify planning, or provide actionable and contextually relevant information.

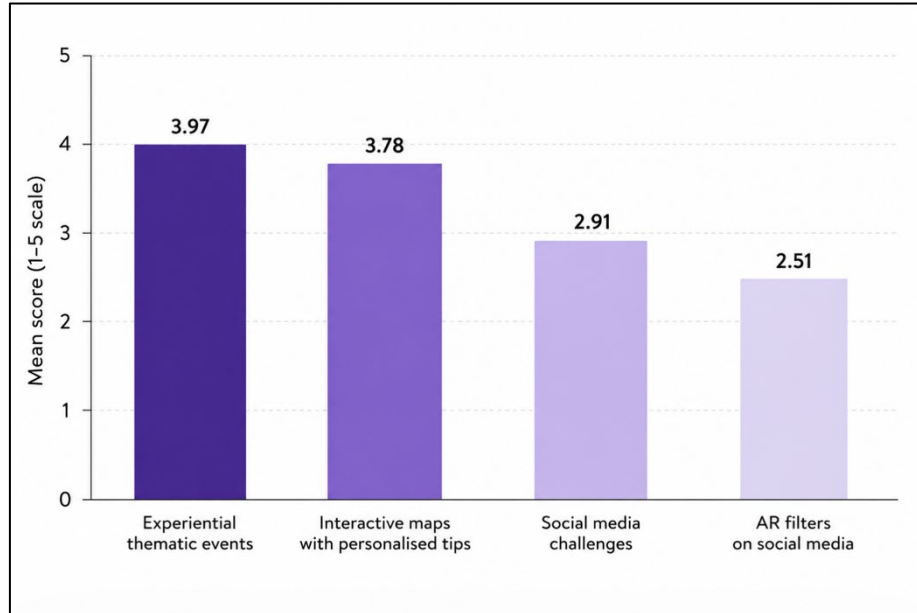


Figure 3: Impact of digital technologies on motivation to visit regions

From an analytical perspective, the results make it possible to distinguish between utilitarian technologies, which primarily facilitate orientation, planning, and decision-making, and hedonic technologies, which are oriented more towards engagement, entertainment, and short-term attention generation. While hedonic tools may contribute to visibility and initial interest, their influence on actual behavioural intention appears to be more limited when not accompanied by practical informational value. Generational differences further indicate distinct patterns of technology acceptance and digital behaviour. Generation Y appears to favour practical digital tools that support planning efficiency and information accessibility, while Generation X demonstrates a generally lower level of technology adoption and a more cautious approach to digitally mediated interaction. In contrast, Generation Z seems to respond more positively to intuitive and immediately accessible digital experiences rather than to technological sophistication itself, suggesting that simplicity and perceived immediacy may be more important than innovation complexity in motivating younger users.

4.4 Environmental Orientation of Respondents and its Influence on Decision-making

To extend the interpretative framework of the study, an additional item focusing on respondents' environmental orientation was incorporated into the questionnaire during the later stage of data collection. Respondents were asked to indicate their level of agreement with three statements using a 5-point Likert scale (1 – strongly disagree, 5 – strongly agree). As illustrated in Figure 4, respondents evaluated the following statements:

1. Information about environmentally friendly options in a region increases my trust in that region.
2. Digital content presenting environmental aspects of a region increases my motivation to visit.
3. I consider the environmental sustainability of a region's offer and activities when choosing a destination.

The findings suggest that environmental aspects play a differentiated and rather indirect role in the destination decision-making process. The highest level of agreement was associated with the statement that environmentally oriented information increases trust in a region, while its influence on visit motivation and the destination choice appears to be comparatively weaker. This pattern may indicate that environmental communication functions primarily as a credibility-enhancing mechanism rather than as a direct behavioural driver. In this sense, sustainability-related content seems to strengthen the perceived responsibility and authenticity of a destination, while its ability to independently stimulate travel intention remains more limited.

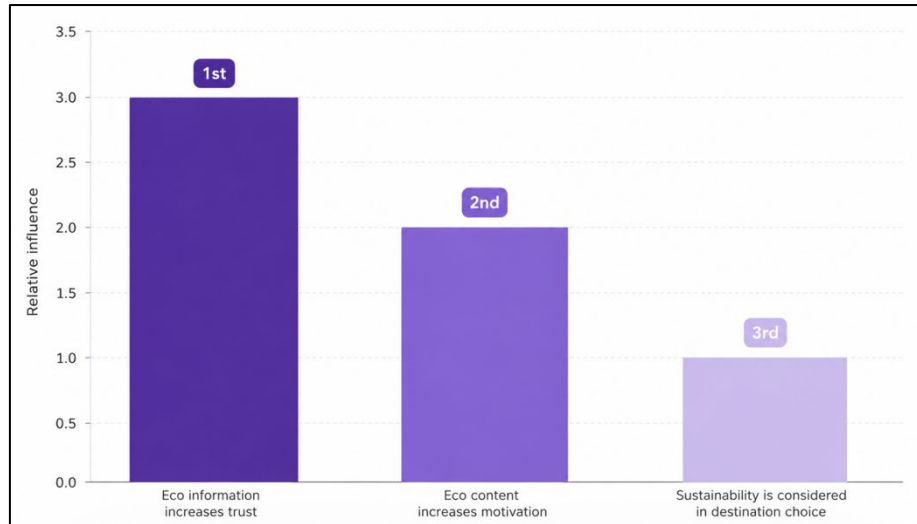


Figure 4: Perceived influence of environmental information on trust, motivation and destination choice

The identified sequence of influence - **trust** → **motivation** → **decision** - further suggests that environmental information may operate through a gradual process of perception formation rather than through immediate behavioural activation. Environmental communication therefore appears to contribute more strongly to the symbolic and reputational dimension of destination perception than to direct decision-making outcomes. Generational comparisons additionally reveal differing levels of environmental orientation and varying ways in which sustainability-related information is interpreted. Generation Y demonstrates the highest level of agreement across the evaluated statements, suggesting a stronger integration of environmental considerations into the evaluation of destinations.

In contrast, Generation Z appears to express a more declarative form of environmental sensitivity, which does not translate as consistently into actual behavioural intention or destination choice. Generation X assigns the lowest importance to environmental aspects overall, indicating a more limited role of sustainability considerations within its decision-making process. Overall, the results suggest that environmentally oriented communication can strengthen trust and positively influence destination perception; however, environmental information alone does not appear to function as a sufficient standalone determinant of travel-related decision-making.

5. Discussion

The findings suggest that although clear generational differences exist in preferred communication channels and digital behaviour, the source of information itself does not appear to represent the decisive factor influencing the motivation to visit a region. Rather than functioning merely as promotional channels, digital platforms operate as mechanisms for knowledge distribution and interpretation, with their effectiveness depending largely on the practical usefulness and applicability of the information they provide. This is reflected in the discrepancy between the relatively high evaluations of trustworthiness and timeliness of information and the comparatively weaker ability of digital communication to stimulate actual visitation intention.

The results further indicate that informational value alone is insufficient to influence behavioural intention unless it is translated into a form that users perceive as relevant, actionable, and supportive of decision-making. In this context, digital communication appears to function more effectively as a tool for orientation, information verification, and uncertainty reduction than as a direct persuasive mechanism. These findings therefore challenge the assumption that increasing the volume of digital communication or technological sophistication alone necessarily leads to stronger destination attractiveness or higher motivational impact.

A similar pattern can be observed in the case of digital technologies. Their effectiveness is not determined primarily by technological novelty or visual attractiveness, but rather by their ability to support planning, simplify orientation, and facilitate the practical application of information. Technologies with utilitarian value, such as interactive maps and personalised recommendations, demonstrate a stronger motivational effect than tools focused primarily on entertainment and visual engagement. This suggests that the adoption and effectiveness of digital innovations in regional tourism communication are closely linked to their perceived usefulness within the decision-making process.

Additional findings related to environmental orientation further support this interpretation. Environmentally oriented communication appears to contribute primarily to trust formation and the strengthening of destination credibility rather than functioning as an independent driver of travel-related decisions. Sustainability-related content therefore seems to influence destination perception indirectly through symbolic and reputational dimensions rather than through immediate behavioural activation.

From a knowledge management perspective, the findings indicate that the effectiveness of regional digital communication should not be evaluated solely according to the choice of communication channels, technological sophistication, or communication intensity. More important is the extent to which communication facilitates users' understanding, orientation, and practical decision-making. Although generational differences reveal distinct preferences in the ways users interact with information and technologies, a common pattern remains visible across all groups: the mere availability of digital information does not automatically increase motivation unless it can be transformed into usable knowledge that supports real decision-making situations.

6. Conclusion

The study examined the role of digital information sources, digital communication quality, and digital technologies in shaping users' decisions related to visiting regions, with particular attention given to generational differences and the complementary role of environmentally oriented content. The findings suggest that the effectiveness of regional digital communication is influenced less by the communication channel or technological novelty itself and more by the practical usefulness and applicability of the information provided to users during the decision-making process.

From a theoretical perspective, the paper contributes to existing research by interpreting regional digital communication not primarily as a promotional activity, but as a process of knowledge transfer whose effectiveness depends on the extent to which information can be transformed into usable knowledge supporting orientation, evaluation, and decision-making. The findings also indicate that environmentally oriented communication contributes more strongly to trust formation and destination credibility than to direct behavioural activation. From a practical perspective, the results suggest that regions should focus less on communication intensity or technological sophistication alone and more on creating digital content and tools that support users in understanding, navigating, and applying information in real decision-making situations.

The study is limited by the uneven generational structure of the sample and the use of a non-probability sampling approach. Future research should therefore verify the identified relationships using more balanced and representative samples while further exploring the mechanisms through which digital information influences behavioural intention and destination-related decision-making.

Acknowledgement

This paper was developed within the framework of the VEGA project no. 1/0304/24, entitled The Impact and Value of Digitisation of Product Marketing Communication Innovations for Generations of Ecological Users.

Ethics Declaration: This research did not require formal ethical approval. Participation in the study was voluntary and anonymous.

AI Declaration: AI tools were used solely for academic language refinement and editing of the English text, as the authors are not native speakers. All content, interpretations, and conclusions remain the responsibility of the authors.

References

- Al Fajar, A.H. and Erlangga, D. (2025) "The Role of Social Media and User-Generated Content in Traveler Decisions: A Literature Review", *Journal of Tourism and Creativity*, Vol. 9, No. 1, pp 91–98.
- Alford, P. and Jones, R. (2020) "The lone digital tourism entrepreneur: Knowledge acquisition and collaborative transfer", *Tourism Management*, Vol. 81, 104139.
- Cai, W. (2019) "Progress on Technology Use in Tourism", *Journal of Hospitality and Tourism Technology*, Vol. 10, No. 4.
- Dabija, D.-C., Bejan, B.M. and Tipi, N. (2018) "Generation X versus Millennials communication behaviour on social media when purchasing food versus tourist services", *Marketing and Trade*, Vol. XXI, No. 1, pp 191–205.
- Damanik, J., Priyambodo, T.K., Wibowo, M.E., Pitanatri, P.D.S. and Wachyuni, S.S. (2023) "Travel behaviour differences among Indonesian youth in Generations Y and Z: pre-, during and post-travel", *Consumer Behavior in Tourism and Hospitality*, Vol. 18, No. 1, pp 35–48.
- Gvaramadze, A. (2022) "Digital Technologies and Social Media in Tourism", *European Scientific Journal*, Vol. 18, No. 10, pp 28–38.

- Indriyani, Z., Wahyuarta, L.R., Riyoko, S. and Roosdhan, M.R. (2025) "Social Media to Destination: The Role of Content and Communication Quality in Driving Tourist Visit Intention and Decision", *Proceedings of the International Conference on Business & Social Sciences*, pp 1581–1585.
- Ivancsóné Horváth, Z., Kupi, M. and Kundi, V. (2025) "Digitalization and Tourism: How X, Y, and Z Generations Make Travel Decisions in the Online Era", *Geojournal of Tourism and Geosites*, Vol. 60, No. 2, pp 1302–1314.
- Martínez-Navalón, J.G., Gelashvili, V. and Saura, J.R. (2020) "The Impact of Environmental Social Media Publications on User Satisfaction with and Trust in Tourism Businesses", *International Journal of Environmental Research and Public Health*, Vol. 17, 5417.
- Orabi, R.M. (2022) "Generational Differences in the Travel Decision-Making Process: A Comparative Study Between Generation X, Y and Z", *Research Journal of the Faculty of Tourism and Hotels*.
- Quiroz-Fabra, J., Valencia-Arias, A., Londoño-Celis, W. and García-Pineda, V. (2022) "Technological Tools for Knowledge Apprehension and Promotion in the Cultural and Heritage Tourism Sector: Systematic Literature Review", *Human Behavior and Emerging Technologies*, Article ID 2851044.
- Sophiandanie, U. and Untoro, W. (2025) "Beyond the Screen: How Online Information and Visual Appeal Shape Tourist Intentions in Lokananta", *International Journal of Economics, Business and Management Research*, Vol. 9, No. 7, pp 22–30.
- Sutrisno, R., Rafdinal, W., Septyandi, C.B., Gaffar, M.R. and Susanto, E. (2024) "Disentangling Digital Influences on Tourist Behavior: The Role of Trust and Destination Image in the Social Media Era", *Journal of Tourism, Hospitality and Travel Management*, Vol. 2, No. 2, pp 129–142.
- Zhang, A., Zhang, B. and Zhu, Y. (2025) "Determinants of Technology Adoption in Tourism: Insights from a Systematic Literature Review", *SAGE Open*, October–December, pp 1–16.