

Increased fibrinolytic microclot counts in platelet-poor plasma are associated with Long COVID

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The study of consumption dynamics and socio-demographics in tourism and hospitality firms: A case for auto-netnography

Abstract

Purpose: In recent years, the study of consumer behavior has been widely integrated into the body of tourism research. Consumer behaviors are fundamentally dynamic processes; thus, understanding both consumer dynamics and socio-demographics are crucial for understanding consumer behavior in tourism research. This paper presents an argument and a call-to-action for a wider acceptance and adoption of auto-netnography as an alternative method for tourism researchers and practitioners to understand better the complex consumption dynamics and socio-demographics of consumers found in tourism and hospitality firms.

Design/methodology/approach: Using the Scopus academic citation database, bibliometric methodologies are deployed to search for and evaluate the deployment of auto-netnographies in tourism research hitherto.

Findings: Despite concerns regarding addressing issues of bias, reproducibility, and consistency to ensure the validity and reliability of their findings, netnographies still remain an effective and relevant research method for tourism researchers to investigate consumption dynamics and socio-demographics. However, as a progressive extension from netnography, and despite the potential of auto-netnography as a research method to contribute to tourism literature by the capture of researchers' own online experiences through their own social observations, introspection, and reflexive notetaking, auto-netnographies have not been widely used in tourism research hitherto.

Originality: Netnography remains an effective research method to investigate the consumption dynamics and socio-demographics of consumers found in tourism and hospitality firms. Introspection and reflexivity are both important parts of netnography and are thus equally or more relevant in auto-netnography. A greater adoption of auto-netnography would allow the capture of researchers' own online experiences as a consumer would and could arguably provide an alternative view of the consumption dynamics and socio-demographics of consumers that may lead to valuable theoretical and practical contributions being made to tourism literature in the future. Potential directions for the method's ongoing development are also offered.

Research limitations/implications: Scopus is constantly being updated with new literature as it becomes published; therefore, our findings represent a 'snapshot' of data during the period of extraction from the academic database. Different keyword search strings when undertaking the Scopus searches could have also resulted in different findings. Nevertheless, this paper expands tourism researchers' awareness of the range of qualitative methods available by arguing that auto-netnography could complement or even replace other more traditional research methods in the future.

Keywords

Auto-netnography, consumption dynamics, consumption socio-demographics, hospitality firm, netnography, tourism firm.

1. Introduction

In recent years, the study of consumer behavior has been widely integrated into the body of tourism research (Decrop and Woodside, 2017). Consumer behaviors are fundamentally

dynamic processes; thus, understanding consumer dynamics and socio-demographics are crucial for understanding consumer behaviors (Zhang and Chang, 2021). Contemporary tourism involves traveling to places and can include activities such as sightseeing, cultural experiences, and adventure activities (Garner and Kim, 2022), and whilst tourism research has taken a position at the forefront of the evolution of online ethnography - or netnography (Akgul and Eren, 2024; Kozinets and Gretzel, 2024; MacCarthy, 2023), this paper presents a call for a wider acceptance and adoption of online auto-ethnography or - auto-netnography¹ (Kozinets and Kedzior, 2009) - which has not been widely used hitherto, as an alternative research method for advancing our understanding of the consumption dynamics and socio-demographics of consumers found in the tourism sector, and in particular, tourism and hospitality firms. Due to problems for tourism researchers and practitioners to often gain access to these consumers – hence respondents - of tourism and hospitality firms to undertake qualitative data collection, netnographies have proven to be an effective alternative for collecting and interpreting rich qualitative data. However, as a progressive extension from the continuously evolving netnography, expanding the field of tourism research with auto-netnography, allows the capture of researchers' own online experiences as a consumer would and could arguably provide an alternative view of consumption that may lead to valuable theoretical and practical contributions being made in the future. The paper is structured as follows. First, to provide context to the paper, we briefly discuss netnography as an evolving and increasingly popular alternative research method for the study of consumption by tourism researchers and practitioners followed by an introduction to auto-netnography. Second, using an academic citation database, bibliometric methodologies are deployed to search for and evaluate the deployment of auto-netnographies in tourism research. Third, we present an argument for a

¹ The method can also be spelt without the hyphen, i.e. autonethnography.

wider acceptance and adoption of auto-netnography when researching tourism and hospitality firms, through the qualitative lens. Conclusions are then presented.

2. Beyond netnography in tourism contexts

The proliferation of social networking sites is increasingly supporting consumers when making service choices. Such consumers are increasingly turning to social media applications for information on which to base their purchase decisions (Kozinets *et al.*, 2018). The influence of the work of Robert Kozinets has thus enabled netnography to become an increasingly popular alternative research method for the study of consumption in online communities and by using a range of digital platforms such as TripAdvisor; a travel review application, Expedia; a travel agency application, and Airbnb; a sharing economy lodging application, much tourism and hospitality-related consumer-generated data can be collected for analysis (see for instance Garner and Kim, 2022). This data, presented as verbatims, is argued to be important when compared with face-to-face interviews and focus groups which have several drawbacks such as respondent inhibition (Elliott and Jankel-Elliott, 2003). Although netnography has nowadays surpassed its early focus on online communities by engaging with data sources using more contemporary technology, much recent tourism research still appears to respect older versions of netnography (Kozinets and Gretzel, 2024). It is argued, therefore, that netnography still remains an effective research method to investigate the consumption dynamics and socio-demographics of consumers (Filieri *et al.*, 2015) found in tourism and hospitality firms by examining the verbatims written by these consumers in online communities, which is usually after their visit, stay and/or journey has ended. However, as a progressive extension of netnography, auto-netnography, defined as an “approach to netnography that highlights the role of the netnographer’s own experiences of his or her own online experiences” (Kozinets and Kedzior, 2009, p. 8), allows the researcher and practitioner to capture their own online

experiences as a consumer would through their own social observations, reflexive note-taking, and other forms of data (Mkono *et al.*, 2015).

2.1 Towards online auto-ethnography or auto-netnography

To explore further the deployment of auto-netnographies as a research method, a search using the Elsevier Scopus abstract and citation database was undertaken for the period between 1970 and 2024 inclusive. A summary of the methodological approach adopted is presented in Table 1.

Table 1: Summary of search outcomes for articles in the Scopus academic database (Source: created by author)

Criteria	Filters	Documents
Keyword search	“auto-netnograph*” OR “autonetnograph*” OR “online auto-ethnograph*” OR “online autoethnograph*”	22
Search period	1970 to 2024	
Restriction	Article title, abstract, keywords	
Selection of journal articles		
Subject area	Business, Management, Accounting	10
Language	English	10
Document type	Journal articles (including editorial for special issue)	7
Source type	Marketing journals	5
Source type	Tourism journals	2

Our search used the single search string “auto-netnograph*” OR “autonetnograph*” OR “online auto-ethnograph*” OR “online autoethnograph*” in the *Article Title, Abstract, Keywords* fields of the publication. This search revealed just twenty-two documents including journal articles, book chapters and editorial material published between 2014 and 2024. The search was then refined to include documents in the Scopus category of *Business, Management and Accounting* subject area. This search revealed ten documents published in the English language which included just *seven* journal articles published in *four* journals between 2015 and 2024. These journals were *Annals of Tourism Research* (n=2), *European Journal of*

Marketing (n=1), International Journal of Market Research (n=1), and Journal of Marketing Management (n=3). A summary of these seven journal articles is presented in Table 2.

Table 2: Summary of articles publishing auto-netnography research between 2015 and 2024 (Source: created by author)

Author(s)	Publication Year	Article Title	Journal	Research Themes
Brown S.; Patterson A.	2021	Me-search? Search me! A new twist in the tale of introspection	Journal of Marketing Management	Auto-ethnography; Auto-netnography; Introspection; Me-Search; Methodology
Ashman R.; Patterson A.; Kozinets R.V.	2021	Netnography and design thinking: development and illustration in the vegan food industry	European Journal of Marketing	Auto-netnography; Content Creators; Design Thinking; Food; Influencers; Netnography; Well-Being
Coombes P. H.; Jones S.	2020	Toward auto-netnography in consumer studies	International Journal of Market Research	Auto-netnography; Consumer Research; Online Communities; Online Ethnography
Kozinets, R.V.; Scaraboto, D; Parmentier, M.A.	2018	Evolving netnography: How brand auto-netnography, a netnographic sensibility, and more-than-human netnography can transform your research	Journal of Marketing Management	Auto-netnography; Brand Auto-netnography; Human Netnography
Villegas D.	2018	From the self to the screen: a journey guide for auto-netnography in online communities	Journal of Marketing Management	Auto-ethnography; Auto-netnography; Ethnography; Introspection; Netnography; Research Methods
Mkono M.	2016	The reflexive tourist	Annals of Tourism Research	Auto-netnography; Humanist Netnography; Reflexivity; Self-Reflexivity; Slumming; Social Media
Mkono M.; Ruhanen L.; Markwell K.	2015	From netnography to auto-netnography in tourism studies	Annals of Tourism Research	Auto-netnography; Methodology; Online Communities; Tourism Research

In Table 2, the article by Brown and Patterson (2021) explores the concept of introspection in marketing research. The paper acknowledges that auto-netnography is an important extension of netnography insofar as the netnographer reflects on their netnography then incorporates the reflexive ruminations and retrospections into the narrative. The authors discuss subjective personal introspection, a controversial technique closely related to auto-ethnography and auto-netnography and recently rebranded as ‘Me-search’. The paper is arguably less a rigorous investigation and more an irreverent reflection on introspective research methods. The article by Ashman *et al.* (2021) explores the integration of netnography with design thinking (a user-centered approach to problem-solving) to enhance the development of monetizable businesses in the vegan food industry. The authors conducted an auto-netnography, which involves the researcher participating in the online community they are studying, to understand how a popular health food influencer designed a successful vegan restaurant. The article by Coombes and Jones (2020) argues for the wider acceptance and adoption of auto-netnography as a research method in consumer studies. The authors suggest that the method can provide valuable insights into consumer behavior by capturing researchers’ personal experiences in online communities. The article also highlights the potential of contemporary technology, such as artificial intelligence (AI), to enhance this research method. Written as the editorial for a special edition on the future of netnography, the article by Kozinets *et al.* (2018) explores how netnography is evolving to stay relevant in the digital age. The article introduces three key concepts: (1) brand auto-netnography: This approach involves researchers immersing themselves in online brand communities to gain deeper insights into consumer behavior and brand interactions, (2) netnographic sensibility: This concept emphasizes the importance of combining traditional netnographic methods with social media listening tools to analyze large data sets while maintaining the richness and context of qualitative data, and (3) more-than-human netnography: Drawing on Actor-Network Theory, this perspective considers both

human and non-human actors (e.g. technology, algorithms) in online social interactions, broadening the scope of netnographic research. The article argues that these evolving approaches can help researchers better understand the complexities of online sociality and consumer behavior in a technologically advancing world. The article by Villegas (2018) introduces a six-step guide for conducting an auto-netnography and is a rare example in the literature of how an auto-netnography should be undertaken. Villegas (2018, p. 247) views an auto-netnography “as a journey inside myself and out to the centre of the culture of an online community: my own emotions, sensations and evocations, and how these relate to the culture of the online community that is co-created” and uses the journey metaphor to explain how to undertake an auto-netnography which essentially requires the researcher: (1) to understand their position and status within the online community being studied, i.e. an active member, a passive observer, or something in between, (2) to think about and record their personal experiences, emotions, and interactions within the community, (3) to collect both internal data (their reflections, memories, and emotions) and external data (posts, comments, and interactions within the community), (4) to look for patterns, themes, and insights in the data, (5) to make sense of their findings in the context of the community, and (6) to share their insights in a structured report format that has considered all ethical issues along the journey. The article also discusses the concept of brand auto-netnography, using the example of Villegas’ own experience as a campaign manager for a presidential candidate’s Facebook community. The final two articles are written specifically in the context of tourism research. The article by Mkono (2016) explores the concept of reflexivity in tourism, particularly focusing on slum tourism. The article highlights three key capabilities of the reflexive tourist: (1) interrogating personal misconceptions: This involves tourists questioning their own preconceived notions and allowing for self-transformation, (2) embracing ambivalence, complexity, and uncertainty: reflexive tourists are open to the complexities and uncertainties

of their experiences, rather than seeking simple, one-dimensional answers, and (3) critiquing own and others' tourism behaviors: tourists reflect on their own actions and those of others, fostering a more critical and ethical approach to tourism. Mkono's article encourages tourists to engage more deeply with the places they visit and to consider the broader social, cultural, and ethical implications of their travel choices. Finally, the article by Mkono *et al.* (2015), explores the evolution of netnography into auto-netnography within the field of tourism studies. Whilst netnography involves analyzing online content such as social media posts, reviews, and forums to understand consumer behavior and cultural trends, auto-netnography takes this a step further by incorporating the researcher's own experiences and reflections into the study. The article highlights the benefits of auto-netnography, such as its ability to capture the nuances of personal experiences and its potential to enhance the authenticity and richness of the research findings. From this review, it appears interesting that both Brown and Patterson (2021) and Villegas (2018) discuss the notion of introspection in the context of auto-netnography. Kozinets *et al.* (2018) considered introspection - and reflexivity - as the first of twelve steps in netnography. Therefore, introspection and reflexivity appear to be both important parts of netnography, and thus, are equally or more relevant in auto-netnography. Together, introspection and reflexivity can enhance the understanding of consumption dynamics by providing deeper insights: introspection allows consumers to articulate their internal motivations, while reflexivity ensures that these insights are critically examined and validated (Dieke *et al.*, 2024). Furthermore, Villegas (2018) visualizes auto-ethnography as positioned in a range between pure introspection at one extreme and insider netnography at the other, or put differently, some auto-netnographic approaches are almost pure introspection and some are more analytical. However, it is important to recognize that Scopus is constantly being updated with new literature as it becomes published; therefore, our findings represent a 'snapshot' of

data during the period of extraction from the academic database. Different keyword search strings when undertaking the searches in Scopus could have also resulted in different findings.

2.1.1 Advantages of auto-netnography

An advantage of auto-netnography is that researchers and practitioners enjoy ease of access to the rich descriptions of customers' private virtual worlds. Thus, by adopting auto-netnography, researchers can call on their own online experiences and reflexive discourses as the source from which to examine consumption dynamics and socio-demographics. Furthermore, through reading reflexive discourses, researchers may become aware of realities that have not been identified previously (Coombes and Jones, 2020), which we contend makes auto-netnography a valuable and complementary alternative method of qualitative inquiry in understanding better the consumption dynamics and socio-demographics of consumers found in tourism and hospitality firms. Finally, auto-netnography is not restricted to the reflexive narratives that consumers publish online but can also make use of other types of media such as audio, photography, and videography as sources of data. However, data sources using more contemporary technology, for instance, Web 5.0, could provide a more innovative approach with AI (Tavakoli and Wijesinghe, 2019) and immersive technology, such as virtual and augmented reality (Kozinets, 2023), offering an alternative and emotional dimension. With the combination of auto-netnography, immersive technology and/or AI, with its advanced tools for data collection, textual, image and video analysis, and pattern recognition potentially leading to more accurate and comprehensive insights, this will further help researchers to better contribute to our understanding of the dynamics of consumption and socio-demographics of consumers found in tourism and hospitality firms. However, while auto-netnography can provide valuable insights, researchers and practitioners must carefully consider and address

issues of bias, reproducibility, and consistency to ensure the validity and reliability of their findings.

3. Conclusion

In sum, as tourism scholarship looks towards the future, we have presented an argument and a call-to-action for a wider acceptance and adoption of a complementary alternative, and hitherto much under used, research method of auto-netnography, who Kozinets and Kedzior (2009) envisage as a progressive extension of netnography, which allows researchers and practitioners to use their experience as consumers or marketers to reflect on their own online experiences to gain insights into marketplace cultures and meanings, as a method for understanding better the consumption dynamics and socio-demographics of consumers found in the tourism sector, and in particular, tourism and hospitality firms, that may lead to significant contributions to theory and to practice being made in the future, through the qualitative lens. In doing so, we hope that these researchers and practitioners will not only add auto-netnography to their toolkits but will continue to contribute actively to its ongoing development. Such ongoing development could include: (1) conducting comparative studies between auto-netnography and other qualitative research methods to evaluate their effectiveness in different tourism and/or hospitality contexts, (2) implementing longitudinal auto-netnographic studies to track changes in consumer behavior and preferences over time, to provide a deeper understanding of evolving tourism and hospitality trends, and (3) utilizing auto-netnography to study cross-cultural differences in tourism and hospitality experiences and expectations, helping to develop more inclusive and diverse tourism practices.

References

Akgul, O. and Eren, D. (2024), "Museum experience in battlefield tourism: a netnographic approach", *Consumer Behavior in Tourism and Hospitality*, Vol. 19 No. 3, pp. 352-365.

Ashman, R. Patterson, A. and Kozinets, R.V. (2021), "Netnography and design thinking: development and illustration in the vegan food industry", *European Journal of Marketing*, Vol. 55 No 9, pp. 2491-2514.

Brown, S. and Patterson, A. (2021), "Me-search? Search me! A new twist in the tale of introspection", *Journal of Marketing Management*, Vol. 37 Nos. 13-14, pp. 1343-1373.

Coombes, P.H. and Jones, S. (2020), "Toward auto-netnography in consumer studies", *International Journal of Market Research*, Vol. 62 No. 6, pp. 658-665.

Decrop, D. and Woodside, A.G. (2017), "Buying, Behaving, and Being: A Portrait of Contemporary Tourists", in Decrop, D. and Woodside, A.G. (Eds.), *Consumer Behavior in Tourism and Hospitality Research*, Emerald Group Publishing, Bingley, pp. xv-xix.

Dieke, P.U.C., Eyisi, A.P. and Ololo, N.G. (2024), "Reflexivity", in: Jafari, J. and Xiao, H. (Eds.), *Encyclopedia of Tourism*, Springer, Cham, pp. 860-861.

Elliott, R. and Jankel-Elliott, N. (2003), "Using ethnography in strategic consumer research", *Qualitative Market Research*, Vol. 6 No. 4, pp. 215-23.

Filieri, R., Algezau, S. and McLeay, F. (2015), “Why do travelers trust TripAdvisor? Antecedents of trust towards consumer-generated media and its influence on recommendation adoption and word of mouth”, *Tourism Management*, Vol. 51, pp. 174-185.

Garner, B. and Kim, D. (2022), “Analyzing user-generated content to improve customer satisfaction at local wine tourism destinations: an analysis of Yelp and TripAdvisor reviews”, *Consumer Behavior in Tourism and Hospitality*, Vol. 17 No. 4, pp.413-435.

Kozinets, R.V. (2023), “Immersive netnography: A novel method for service experience research in virtual reality, augmented reality and metaverse contexts”, *Journal of Service Management*, Vol. 34 No. 1, pp. 100-125.

Kozinets, R.V. and Kedzior, R. (2009), “I, avatar: Auto-netnographic research in virtual worlds”, Wood N.T. and Solomon M.R. (Eds.), *Virtual social identity and consumer behavior*, Routledge, New York, NY, pp. 3-19.

Kozinets, R.V. and Gretzel, U. (2024), “Netnography evolved: New contexts, scope, procedures and sensibilities”, *Annals of Tourism Research*, Vol. 104, pp. 103693.

Kozinets, R.V., Scaraboto, D. and Parmentier, M.A. (2018), “Evolving netnography: How brand auto-netnography, a netnographic sensibility, and more-than-human netnography can transform your research”, *Journal of Marketing Management*, Vol. 34 No. 3-4, pp. 231-242.

MacCarthy, M. (2023), “Nethnography, complementing netnography: A defensible praxis for the online researcher”, *Current Issues in Tourism*, Vol. 26 No. 23, pp. 3782–3793.

Mkono, M. (2016), "The reflexive tourist", *Annals of Tourism Research*, Vol. 57, pp. 206-219.

Mkono, M., Ruhanen, L. and Markwell K. (2015), "From netnography to auto-netnography in tourism studies" *Annals of Tourism Research*, Vol. 52, pp. 167-169.

Tavakoli, R. and Wijesinghe, S.N.R. (2019), "The evolution of the web and netnography in tourism: A systematic review", *Tourism Management Perspectives*, Vol. 29, pp. 48-55.

Villegas, D. (2018), "From the self to the screen: A journey guide for auto-netnography in online communities". *Journal of Marketing Management*, Vol. 34 No. 3-4, pp. 243-262.

Zhang, J.Z. and Chang, C.W. (2021), "Consumer dynamics: Theories, methods, and emerging directions". *Journal of the Academy of Marketing Science*, Vol. 49, pp. 166-196.