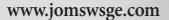
JOURNAL OF MODERN SCIENCE

2/56/2024





DOI: doi.org/10.13166/jms/188362

Anna Dewalska-Opitek	Aleksandra Szejniuk
University of Economics in Katowice,	WSGE University of Applied Science
Poland	in Józefów, Poland
ORCID iD: orcid.org/0000-0002-1269-4738	ORCID iD: orcid.org/0000-0001-9964-118X

GEN Z CONSUMERS' INCLINATION TO ENGAGE IN BRAND RELATIONSHIPS IN METAVERSE – AN EMPIRICAL APPROACH

ABSTRACT

Objectives: The purpose of this study was to recognize and categorise factors influencing Gen Z's inclination to build and maintain brand relationships in the Metaverse.

Originality/value: While there are interesting research findings in global literature regarding both customer engagement and brand relationships, explaining consumers' engagement in brand relationships in the virtual world – the Metaverse – represents a unique challenge. Consequently, this paper aims to address this gap in the literature by examining Gen Z customers' inclination to engage in brand relationships from an international standpoint. This leads to new conceptualization and the typology of factors.

Materials and methods: Theoretical deliberations were grounded in literature studies. The empirical part of the paper was based on quantitative research in the form of a survey in 2023 with international respondents. The sample consisted of respondents aged 18-25, who declared they had conducted activity in the Metaverse. Sampling procedures were based on convenience sampling (non-random technique). In total, 97 valid questionnaires were used in the analysis. The research was exploratory in nature and was not intended to provide conclusive evidence, but to have a better understanding of the problem. The gathered data were subject to content analysis, descriptive statistics analysis, and exploratory factor analysis (EFA).

Results: All the participants of the study declared that they had been active in the Metaverse, mainly in the form of gaming, education, or customer experience. Gen Z are willing to engage in relationships with brands in the form of value co-creation, providing feedback, recommendations and brand advocacy, or brand loyalty. Exploratory factor analysis (EFA) enabled the identification of 16 items in the following categories: Consumer Inclination, Consumer Openness, Consumer Relatedness, Consumer Esteem, and Consumer Growth. Convergent validity for a 5-item construct was tested and met the required criteria.

Conclusions: This paper enhances our understanding of Gen Z consumers' inclination to build brand relationships in the Metaverse on both a theoretical and empirical level. It is a response to the need for further research in this emerging field, which investigates less-explored factors and emphasizes the crucial role of the Metaverse in shaping consumer behaviour within virtual worlds. The study underscores the importance of utilizing the Metaverse for engaging customers and fostering stronger brand relationships, which provides managerial insights in order to enhance customer experiences in virtual environments. Several limitations were addressed in this study.

KEYWORDS: Gen Z consumers, brand relationship, Metaverse

Introduction

Increasing competitiveness among companies has made managers search for a key asset, which will be effective in achieving long-term success. Literature studies (Liu et al., 2020; Kushwaha et al., 2020, Sanchez-Fernandez et al., 2009, and Sanchez-Fernandez and Iniesta-Bonillo, 2007) demonstrate that the prosperity of a business may be assured when companies establish and nurture robust, enduring connections with their stakeholders, placing a special emphasis on cultivating customer relationships. According to Shin et al. (2022), relationship marketing plays a pivotal role in contemporary business and relationships between brands and their customers may be comparable to interpersonal relationships.

The need to establish a brand relationship may be more crucial when it comes to generation Z (Gen Z). According to generation cohort theory (Fernandez-Duran, 2016), groups of individuals or cohorts who were born during the same frame and experienced similar distinguishable external events during early adulthood (17-23 years) share similar values, attitudes, preferences, and consumption behaviours throughout their lives. One of the latest generational cohorts in the spotlight due to their raising marketing power is Gen Z. With an estimated collective buying power of \$853 billion on a global level and a predicted value of purchasing power of \$2 trillion to be reached by 2026 (McKinsey & Company, 2023a), Gen Z has become an important consumer cohort.

Moreover, this generation is moving away from traditional marketing and brand relationship. In fact, they are referred to as *digital natives* (Dewalska-Opitek, Witczak, 2023), they socialize, learn, entertain, and build relationships in a fluid digital world – one in which boundaries between their online and offline lives blur to the point they are hardly distinguishable (Cheung et al., 2017, McKinsey & Company, 2023b).

The emergence of the Metaverse, a virtual reality that exists beyond reality (Kye et al., 2021, Kolesnichenko et al., 2019), connecting consumer's imagination to the real world (Bale et al. 2022), and bringing a fusion of social networking with the immersive virtual worlds (Ayiter, 2019) fits perfectly into the lifestyle of Gen Z.

Despite its rapid expansion, there is still a lack of understanding about consumer behaviour in the Metaverse. Prior studies present diverse but

general perspectives on the emerging challenges and opportunities within the Metaverse (Dwivedi et al., 2022), provide theoretical predictions on how the Metaverse will shape the future of consumer research and practice (Koohang, 2023), or describe the digital revolution of the Metaverse in a particular business industry (Dewalska-Opitek, 2023). However, these studies leaving a gap when it comes to Gen Z consumers' perspective and their inclination to maintain brand relationships in the Metaverse. While there are interesting research findings in the global literature regarding both customer engagement and brand relationships, explaining consumers' propensity to engage in brand relationships in the virtual world – the Metaverse – represents a unique challenge. Consequently, this paper aims to address this gap by examining Gen Z customers' inclination to engage in brand relationships from an international standpoint. From this a new conceptualization and typology of factors has been formed.

The purpose of this study was to recognize and categorise factors influencing Gen Z's inclination to build and maintain brand relationships in the Metaverse.

The study adopts a quantitative approach, employing a survey method conducted in 2023 on international respondents. The sample consisted of respondents aged 18-25, who declared that they had conducted activity in the Metaverse. The sampling procedures were based on quota sampling (non-random technique). In total, 97 valid questionnaires were used in the analysis. The research was exploratory in nature and was not intended to provide conclusive evidence, but to enable better understanding of the problem. The gathered data was subject to content analysis, descriptive statistics analysis, and exploratory factor analysis (EFA).

THEORETICAL BACKGROUND

GEN Z CONSUMERS AND THEIR BRAND INTERACTIONS

Generation Z, often referred to as Gen Zers, iGeneration, Gen Wii or NextGen (Thangavel et al., 2022) encompasses consumers born in the mid-1990s and beyond. This emerging consumer demographic is the initial cohort born entirely in the digital era. These individuals have never experienced

a world without the internet, apps, or immediate communication with a wide network of peers who shape their opinions. As self-sufficient digital natives, they socialize, learn, and enjoy themselves within a dynamic digital realm where the distinctions between their online and offline lives become nearly imperceptible (Bezbaruah, Trivedi, 2020, pp. 300-302).

M. Ozkan and B. Solmaz (2015, pp. 476-483) characterize Gen Z as individuals who excel at multitasking and prefer acquiring knowledge independently, emphasizing their distinctive individuality. Their ethos revolves around accomplishing more within shorter time frames, with efficiency and effectiveness being integral to their daily reasoning (Chillakuri, Mahanandia, 2018, pp. 34-38). Growing up in a world saturated with the Internet, Gen Z is reliant on and well-acquainted with Information and Communications Technology (ICT) solutions. Described as self-assured, proponents of teamwork, and individuals seeking assurance for their future, they actively pursue workplace happiness and prioritize autonomy over authority (Ozkan, Solmaz, 2015, p. 478).

According to the 2023 Gen Z and Millennial Survey (Deloitte, 2023), technology has made Gen Zs into brand enthusiasts, but not all of them display the same level of enthusiasm or brand loyalty. If brands are slow to engage or break their promises, then members of Gen Z will quickly switch to a competitor. Chen Davidson et al. (2014, pp.1-3) and Agbeche (2022, pp. 1354-1355) argue that brand loyalty and brand enthusiasm are frequently misused interchangeably, yet they carry distinct meanings. Loyalty, in brand assessment, focuses solely on repeat purchases. In contrast, brand enthusiasm involves active engagement between the brand and consumers, allowing organizations to comprehend consumer preferences and behaviours.

Research findings presented by Cheung et al. (2017) show that Gen Z members, although generally less prone to forming strong brand attachments compared to previous generations, still exhibit a strong willingness to engage with organizations. This presents a significant opportunity for brands not only to influence Gen Z but also to establish a meaningful connection that fosters brand enthusiasm. Authenticity is crucial in this context, as Gen Z, having grown up in an era where misinformation is abundant, values transparency and authenticity. They are discerning and seek brands that are genuine. The traditional categories of brand loyalty, such as advocates, apathetics, and antagonists, have become obsolete due

to technological advancements. In their place, three new categories have emerged: Brand Devotees, Brand Connectors, and Brand Pragmatists.

Brand Devotees, constituting 28% of Gen Z, are fervent about brand engagement, favouring authenticity and innovation. They actively seek new products and are vocal about spotting inauthentic brands, especially on social media. This segment craves engagement and collaboration, requiring brands to offer opportunities for co-creation across various channels. Primarily found in burgeoning markets like China, India, Mexico, South Africa, and the Middle East, Brand Devotees attract new followers through positive social media experiences. Brands should facilitate access to user-generated content, such as reviews and recommendations, to bolster their influence (Cheung et al., 2017).

Brand Connectors, representing 48% of Gen Zers, form the largest cluster within this demographic. They show strong brand affiliations and actively seek avenues to voice their opinions. While authenticity remains important to them, they are more forgiving compared to Brand Devotees. Brand Connectors aspire to contribute meaningfully, underscoring the importance for brands to offer platforms for their expression. Successfully engaging with this group hinges on a brand's ability to remain flexible, adaptable, and agile. Understanding the nuanced preferences and behaviours of individuals within this diverse group is paramount to effectively catering to Brand Connectors (Veloutsou, Black, 2020).

Brand Pragmatists, comprising 24% of Gen Z, prioritize familiarity and reliability. They seek consistent delivery of essentials like quality, value, and availability. Loyalty from Pragmatists is secured through brands that consistently deliver on their promises and provide tangible product benefits. With minimal investment in branded content and engagement, brands can retain Pragmatists' loyalty, as they tend to remain loyal once satisfied. This group shows less inclination towards new and trendy products compared to Devotees and Connectors. Brands should actively listen to Pragmatists' feedback, as addressing their concerns could potentially elevate them to Connectors (Cheung et al., 2017; Carlson et al., 2018).

Research conducted by Kiser and Washington (2015) followed by Cirilli and Nicolini (2019), as well as Zhang et al. (2023), proved that Gen Zers' digital skills are high, surpassed only by the latest Alpha Generation (called Screenagers). Gen Z's tech familiarity makes them receptive to advancements like artificial intelligence (AI), including the Metaverse.

THE CONCEPT OF THE METAVERSE

The term *Metaverse* gained prominence with Mark Zuckerberg's announcement of renaming and rebranding Facebook as Meta in October 2021. This marked a significant shift towards emphasizing the creation of a *Metaverse*, a digital platform where individuals can replicate real-life activities using digital avatars. This includes professional tasks like office meetings, social interactions with co-workers, shopping, watching movies, attending concerts, and building relationships with brands (Milmo, 2021, pp. 2-3).

Defining the Metaverse is challenging, given its ongoing development, and it lacks a universal definition. It is often described as the future of the internet, an immersive next-generation version facilitated by various technologies (Nover, 2021, p.1). The Metaverse world may be referred to as a virtual environment where consumers are represented by avatars (Gonzalez, 2022, pp. 3-5). According to Zuckerberg, the Metaverse is an *embodied internet that people are inside of instead of just looking at* (Chayka, 2021, p.1).

While the term *Metaverse* was popularized in Neal Stephenson's 1992 novel *Snow Crash*, its evolution has accelerated with advancements in computing and graphics, resulting in diverse digital virtual worlds, including games, role-playing, simulators, and social virtual spaces. Contemporarily, the Metaverse encompasses the integration of virtual reality (VR), augmented reality (AR), and mixed reality (MR) into daily life accessible through PCs, game consoles, and smartphones (Periyasami and Periyasamy, 2022, p. 529).

Acknowledging the expansive scope of the term, this study uses *Metaverse* to encompass existing platforms and technologies representing steps toward an immersive, interconnected digital universe. However, the Metaverse is recognized as a work in progress, which is not yet fully realized in its ultimate form (Kaur et al., 2023, p. 3).

The Metaverse, initially rooted in gaming, has evolved into a realm of real-world economic value and a new business model. Recent attention has turned towards the business and marketing potential of the Metaverse, with scholars emphasizing the role of brands in shaping consumer experiences within this digital realm. This trend has also sparked new partnerships among brands in recent years. Another notable advantage of the Metaverse in marketing communication

lies in its capacity to provide marketers with access to a diverse and extensive audience, as it serves as a global platform for connecting and engaging people worldwide. This enables reaching a global audience and establishing widespread brand awareness. The Metaverse enables brands to craft distinctive and immersive experiences to capture consumers' attention. Through the utilization of advanced technologies such as augmented and virtual reality, brands can create engaging experiences that foster strong emotional connections with consumers (Mital and Rohit, 2023, Mishra and Dharmavaram, 2023).

Gen Z consumers' inclination to build relationships with brands in the Metaverse, has become central in research.

RESEARCH METHODOLOGY

The aim of this investigation was to identify factors associated with the propensity of Generation Z (Gen Z) consumers to establishing brand relationships within the Metaverse. The study, conducted in 2023 through a survey, constituted a segment of a more comprehensive examination of Gen Z behaviour. However, this paper exclusively presents specific outcomes, especially those pertaining to the dynamic between consumers and brands.

This exploratory research was undertaken to discern the nature of the issue and its primary goal was not to provide definitive proof but to enhance comprehension of the matter (Henson and Roberts, 2006). Data was gathered from global Gen Z consumers, with the selected sample having participated in brand-related activities in the Metaverse. The sampling technique employed was convenience sampling, a non-random approach via SurveyMonkey platform. Convenience sampling is a type of nonprobability sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study (Etican et al., 2016, p.2). Although 161 respondents were reached, due to filtering questions (regarding survey participants experience with the Metaverse and age ranges to identify GenZers), a total of 97 valid questionnaires were analysed. Table 1 provides essential details about the survey participants.

Table 1. *Sample characteristics* (N=97)

Specification	Sample (in %)
1. Gender: Male Female Other/ not declared 2. Age: 18-19 20-22	44,3 55,7 - 39,3 34,5
23-25 3. Nationality: Australian British Chinese French Indian Italian Japanese South Korean Polish Romanian Slovak Ukrainian Other	26,2 11,4 8,3 12,4 6,2 7,2 4,1 16,6 11,4 4,1 1,0 7,2
4. Perceived economic status compared to other consumers at the same age: Definitely better Rather better Neither better nor worse Rather worse Definitely worse 5. Frequency of Internet usage:	11,3 21,5 46,7 14,0 6,5
Several times a day About once a day Several times a week Several times a month Not more often than once a month Never, hardly ever	91,6 8,4 - - -

Source: Own elaboration

54 of the respondents were female and 43 of those females were aged 18-22. They came from South Korea (16.6% of respondents), France (12.4% of respondents), Great Britain and Poland (8.3% and 11.4% of study participants respectively). When asked to describe their economic status in comparison

to other people at the same age, respondents evaluated it as similar or the same (47%) and rather better (21%). 11% of respondents declared their economic status was definitely better and 21% evaluated it as worse (14% rather worse and 7% – definitely worse). Respondents were also asked how often they used Internet. 92% declared their internet usage to be several times a day and 8% about once a day.

The survey served as a research instrument for the purpose of data collection. It featured scales designed to assess the inclination towards establishing brand relationships within the virtual realm of the Metaverse, as well as to identify and categorize factors influencing the inclination of Generation Z (Gen Z). For the dependent variables, by measuring the inclination to build relationships, scales were adapted from studies conducted by France et al. (2016) and Islam and Rahman (2016). As for the independent variables encompassing consumer personality, relatedness, esteem, and growth, scales were predominantly derived from research by Srivastava and Owens (2010) and Adhikari and Panda (2019). To gauge customer behaviour in the Metaverse, scales from Kaur et al. (2023), Hadi et al. (2023) and Chakraborty et al. (2023) were employed. The vast majority of constructs were measured with multi-item reflective measurement models using 5-point Likert scales ranging from (1) strongly disagree to (5) strongly agree. Some adaptation was also used when respondents were asked about the frequency of an activity, ranging from (1) I definitely did not perform to (5) I definitely performed. To mitigate measurement error and prevent result bias, neutral language was employed, along with assurances of respondent anonymity and data confidentiality.

RESEARCH FINDINGS

Respondents were asked whether they had conducted any form of activity in the Metaverse within the previous six months. It was a filter question used for sampling. 97 survey participants representing Gen Z declared they had, and they were asked to indicate the genal purpose of their visits to the Metaverse. Respondents mainly highlighted gaming (92%), education (74%) and customer experience (69%). Detailed answers are presented in Figure 1. The question had a conjunction-like character, which is why the results do not add up to 100%.

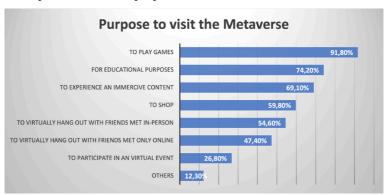


Figure 1 Respondents declared purposes to visit the Metaverse

Source: Own elaboration

Respondents were asked if they had spotted any brands when visiting the Metaverse. The vast majority of them (94%) declared they had – *definitely spotted* or *rather spotted* a brand or brands when they visited the Metaverse (39% and 57% respectively), 3% of the study participants cannot recall any brand and 1% declared they had not recognized any brand in the Metaverse. Detailed answers are presented in Figure 2.

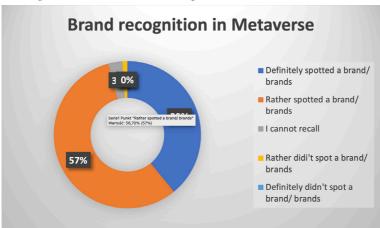


Figure 2. Respondents declared brand recognition in the Metaverse

Source: Own elaboration

346

The survey participants were asked about their inclination to engage in brand relationship in the Metaverse by indicating their declared behaviour on a 5-point Likert scale (from 5 – definitely perform, to 1 – definitely not perform). Respondents' replies are presented in a form of a semantic profile in Figure 3.

Figure 3. Respondents declared inclination to engage in brand relationship in Metaverse

	Respondents' declared replies				
Types of engagement in brand relationship in Metaverse	Definitely perform	Rather perform	Neither perform nor do not	Rather not perform	Definitely not perform
	(5)	(4)	perform (3)	(2)	(1)
Recommendation and brand advocacy		4,1			
Brand affiliation		3,5			
Brand loyalty		4,0			
Participation in brand communities			3,1		
Increased purchase			3,4		
Value co-creation		4,4			
Choosing a brand of preference in a Metaverse activity		3,6			
Feedback		4,3			
Tolerance to a minor misconduct of a brand				2,6	

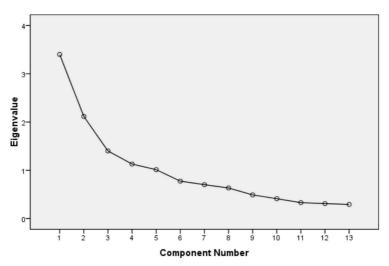
Source: Own elaboration

The researched members of Gen Z are willing to engage in relationships with brands in the form of value co-creation, providing feedback, recommendation and brand advocacy or brand loyalty. They are less prone to tolerating brand misconduct, actively participating in brand communities or increasing purchase intensity.

Through the utilization of the SPSS program, exploratory factor analysis (EFA) was conducted to pinpoint the primary determinants of helping behaviour. The Scree Plot (Figure 4) revealed a five-factor solution.

Figure 4. Scree Plot indicating the number of components for customers' inclination to build brand relationships in the Metaverse





Source: Own elaboration based on survey results processed in the SPSS package

Varimax results from the EFA were applied to the 16 previously identified items associated with latent constructs. Overall, the items demonstrated anticipated loadings on their respective constructs, all surpassing 0.6, and exhibited no instances of cross loadings (Dewalska-Opitek 2019). The detailed Varimax results can be found in Table 2.

The rotated component matrix revealed five principal constructs influencing customers' proclivity for engaging in brand relationships in the Metaverse. The first construct, labelled Consumer Inclination, reflects customers' willingness to engage in future brand relationship activities in the Metaverse. This includes recommendations and brand advocacy, brand loyalty, participating in brand communities and sharing ideas with companies.

The second construct, Consumer Openness, elucidates how customers' personality traits, such as openness to experience, innate innovativeness, enduring involvement, or extraversion, manifest in their willingness to participate in brand relationship (Handrich and Heidenreich, 2013).

The third construct, Consumer Relatedness, encompasses consumers' attitudes and behaviours toward others, including relationships with others or membership in a group.

The fourth and the fifth constructs, Customer Esteem and Customer Growth, align with Maslow's identified needs, specifically esteem needs (acceptance, recognition, respect) and growth needs (self-fulfilment, self-development, development of competences).

Table 2. Rotated component matrix

-	Component				
	1	2	3	4	5
Recommendations and brand					710
advocacy					.712
Brand loyalty					.856
Participating in brand community					.655
Sharing ideas with companies					.680
Openness to experience	.915				
Innate innovativeness	.832				
Enduring involvement	.812				
Extraversion	.819				
Relationships with others			.919		
Membership in a group			.917		
Acceptation		.812			
Notification		.713			
Respect		.866			
Self-fulfilment				.815	
Self-development				.915	
Experiencing something new				.740	

Source: Own elaboration based on survey results processed in SPSS package

In accordance with the methodologies proposed by Mitręga and Pfajfar (2015, p. 198), the assessment of convergent validity was conducted to ascertain whether the *indicators of a specific construct should cover or share a high proportion of variance in common.* Convergent validity was evaluated using the criteria of Average Variance Extracted (AVE) and Composite Reliability (CR), with benchmarks set at AVE > 0.5 and CR > 0.6. The outcomes of the convergent validity analysis are detailed in Table 3.

Table 3. Convergent validity for 5-item construct

	Composite Reliability (CR)	Average Variance Extracted (AVE)
Consumer Inclination	0,863	0,687
Consumer Openness	0,782	0,548
Consumer Relatedness	0,857	0,665
Consumer Esteem	0,864	0,627
Consumer Growth	0,763	0,563

Source: Own survey results processed in Excel

All the specified criteria were satisfied for all the assessed constructs. Considering these outcomes alongside the results of the conducted analysis, it is reasonable to infer that the measurements of latent variables demonstrate validity and reliability for each of the five constructs: Consumer Inclination, Consumer Openness, Consumer Relatedness, Consumer Esteem, and Consumer Growth. This establishes a foundation for exploring relationships among these constructs in future studies.

DISCUSSION AND CONCLUSIONS

In summary of the arguments presented in the paper, the practice of value co-creation emerges as a significant trend in customer behaviour, which is particularly notable among Generation Z. Given this cohort's inclination for engagement in brand relationships, companies must embrace Gen Z customer enthusiasm to foster enduring connections. To establish lasting bonds, a participation-driven, interactive digitalised business model (like the Metaverse), supported by appropriate physical and digital infrastructure, is recommended for future implementation.

Literature studies confirm that although the Metaverse is a novel concept, it has already gained recognition, especially among young consumers from Gen Z, who are moving away from traditional marketing and brand relationships. Termed as *digital natives*, they socialize, learn, entertain, and build relationships in a fluid digital world, where boundaries between their online and offline lives are hardly distinguishable.

The theoretic deliberation was enriched by direct quantitative research results. This study aimed to identify factors related to the inclination of Gen Z individuals to establish brand relationships in the Metaverse. Utilizing a quantitative approach, the research employed a survey method conducted in 2023 with an international sample of 97 respondents. The sample targeted respondents aged 18-25 who confirmed their participation in Metaverse activities. Through exploratory factor analysis (EFA), this study identifies five primary constructs influencing the willingness of Generation Z customers to engage in brand relationship: Consumer Inclination, Consumer Openness, Consumer Relatedness, Consumer Esteem, and Consumer Growth. The measurements of latent variables demonstrate validity and reliability across all five constructs, enabling the examination of relationships between them in future studies using alternative analytical methods.

The results support a previous study by Mahmoud (2023) and Cho (2023) stating that the Metaverse changes the way people consume and communicate and how consumers engage with brand relations. The findings of this study also implied that the application of the Metaverse provides opportunities to engage with customers in virtual worlds by building better relationships. By using the Metaverse, customers also perceive that the application of virtual worlds by the Metaverse enables them to have memorable experiences, which was one of the purposes of the Gen Z respondents' activity in Metaverse.

This paper enriches our comprehension of Gen Z consumers' inclination to engage in brand relationships at both theoretical and empirical levels, contributing to the academic literature in several ways. Firstly, it responds to previous calls to continue developing studies on customer behaviour in the Metaverse, an emerging field for academics and business practitioners. Secondly, it sheds light on factors which are less explored in the literature, therefore, enhancing our understanding of the inclination to interact with brands in virtual reality.

At a managerial level, this research focuses on how customers perceive the application of advanced technology, particularly the Metaverse, in shaping their consumer behaviour within virtual worlds. Therefore, the utilization of the Metaverse plays a crucial role in engaging customers within a virtual environment and contributes to the development of stronger customer relationships. The integration of the Metaverse enables consumers to interact with brands. The study's

results provide insights into which aspects should be prioritized to enhance customer experiences in virtual worlds through the adoption of the Metaverse.

However, certain limitations apply to the study's findings. The research exclusively focuses on Gen Z's inclination to engage in brand relationship, and a cross-generational comparison might provide a new perspective on the phenomenon. Additionally, further research may uncover additional factors and motives of Gen Z customers both stimulating and enhancing and restraining or restricting their inclination for engaging in brand relationships in virtual worlds, leaving room for future exploration.

REFERENCES

- Adhikari, K., Panda, R. K. (2019). The role of consumer-brand engagement towards driving brand loyalty: Mediating effect of relationship quality. Journal of Modelling in Management, 14(4), 987-1005. DOI:10.1108/jm2-03-2019-0067
- Agbeche A. (2022). Customer Enthusiasm and Brand Loyalty to Airlines Services in the Nigeria Aviation Industry. International Journal of Trend in Scientific Research and Development (IJTSRD), 6 (3), 1354-1360, available at: https://www.ijtsrd.com/papers/ijtsrd49704.pdf [date of access: 01.01.2024].
- Ayiter, E. (2019). Spatial poetics, place, non-place, and story worlds: Intimate spaces for Metaverse avatars. Technoetic Arts: A Journal of Speculative Research, 17(1–2), 155–169, DOI: 10.1386/tear_00013_1
- Bale, A. S., Ghorpade, N., Hashim, M. F., Vaishnav, J., & Almaspoor, Z. (2022). A comprehensive study on Metaverse and its impacts on humans. Advances in Human-Computer Interaction, 2022, 1–11, DOI: https://doi.org/10.1155/2022/3247060
- Bezbaruah, S., & Trivedi, J. (2020). Branded Content: A Bridge Building Gen Z's Consumer–Brand Relationship. Vision, 24(3), 300-309. https://doi.org/10.1177/0972262920930167
- Carlson., J., Wylliea, J., Rahmanb, M.M. and Voolac, R. (2018). Enhancing brand relationship performance through customer participation and value creation in social media brand communities. Journal of Retailing and Consumer Services, https://doi.org/10.1016/j.jretconser.2018.07.008
- Chayka K. (2021). Facebook Wants Us to Live in the Metaverse, available at: https://www.newyorker.com/culture/infinite-scroll/facebook-wants-us-to-live-in-theMetaverse [accesses on 01.01.2024].
- Chen Davidson J., Davis T., and Bigornia A. (2014). Brand enthusiasm: More than loyalty How today's consumers want to engage with your brand." IBM Institute for Business Value, available at: https://www-935.ibm.com/services/us/gbs/thought-leadership/brandenthusiasm/ [date of access: 01.01.2024].
- Cheung J., Davis T., Heukaeufer E. (2017). Gen Z brand relationships. Authenticity matters. IBM Institute for Business value, available at: https://cdn.nrf.com/sites/default/files/2018-10/NRF_GenZ%20Brand%20Relationships%20Exec%20Report. pdf [date of access: 31.12.2023].
- Chillakuri, B., Mahanandia, R. (2018). Generation Z entering the workforce: the need for sustainable strategies in maximizing their talent, Human Resource Management International Digest, 26 (4), 1-6, DOI: 10.1108/HRMID-01-2018-0006
- Cirilli E., Nicolini P. (2019). Digital skills and profile of each generation: a review. International Journal of Developmental and Educational Psychology, INFAD Revista de Psicología, N°1 Monográfico 2, 487-496, DOI: 10.17060/ijodaep.2019.n1.v3.1525
- Deloitte (2023). 2023 Gen Z and Millennial Survey, available at: https://www.deloitte.com/global/en/issues/work/content/genzmillennialsurvey.html [date of access: 31.12.2023].

- Dewalska-Opitek A. (2023). Digital Revolution in Fashion Industry to What Extent Can Metaverse Become a Predominant Business-To-Customer Model in the Digital Era, Zeszyty Naukowe Wyższej Szkoły Humanitas. Zarządzanie, 2023, nr 2, s. 31-47, DOI: http://dx.doi.org/10.5604/01.3001.0053.7555
- Dewalska Opitek, A. (2019). Inclination for Customer Citizenship Behaviour on Transportation Market. In: Mikulski, J., Ed. 2019. Development of Transport by Telematics, Communications in Computer and Information Science, series no 1049, Springer, 259-275, DOI: https://doi.org/10.1007/978-3-030-52294-0_17
- Dewalska-Opitek A., Witczak O. (2023). Generation Z As Consumers Contemporary Relationship Challenges, Zeszyty Naukowe Akademii Górnośląskiej No 4, 53 61, DOI: 10.53259/2023.4.06
- Dwivedi, Y. K., Hughes, D. L., Cheung, C. M., Conboy, K., Duan, Y., Dubey, R., Janssen, M., Jones, P., Sigala, M., & Viglia, G. (2022). How to develop a quality research article and avoid a journal desk rejection. International Journal of Information Management, 62, 102426, DOI: 10.1016/j.ijinfomgt.2021.102426
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. American journal of theoretical and applied statistics, 5(1), 1-4.
- Fernández-Durán J.J. (2016), Defining generational cohorts for marketing in Mexico, Journal of Business Research, 69 (2), 435-444, DOI: https://doi.org/10.1016/j.jbusres.2015.06.049
- France, C., Merrilees, B., Miller, D. (2016). An integrated model of customer-brand engagement: Drivers and consequences. J Brand Manag 23, 119–136. DOI: https://doi.org/10.1057/bm.2016.4
- Gonzalez P. (2022). Digital fashion in the Metaverse, available at: https://hdl.handle.net/10589/188809 [accessed on 01.01.2024].
- Hadi, R., Melumad, S., & Park, E. S. (2023). The Metaverse: A new digital frontier for consumer behavior. Journal of Consumer Psychology, 00, 1–25. https://doi.org/10.1002/jcpy.1356
- Henson, R. K., & Roberts, J. K. (2006). Use of Exploratory Factor Analysis in Published Research Common Errors and Some Comment on Improved Practice. Educational and Psychological Measurement, 66(3), 393-416, DOI: https://doi.org/10.1177/0013164405282485
- Islam J. U., Rahman Z.(2016) Examining the effects of brand love and brand image on customer engagement: An empirical study of fashion apparel brands, Journal of Global Fashion Marketing, 7:1, 45-59, DOI: 10.1080/20932685.2015.1110041
- Koohang, A., Nord, J., Ooi, K., Tan, G., Al-Emran, M., Aw, E., & Wong, L. (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), 1–31, DOI: 10.1080/08874417.2023.2165197

- Kolesnichenko, A., McVeigh-Schultz, J., & Isbister, K. (2019). Understanding emerging design practices for avatar systems in the commercial social VR ecology. [In] DIS 2019 Proceedings of the 2019 ACM Designing Interactive Systems Conference, ACM, 241–252, DOI: https://doi.org/10.1145/3322276.3322352
- Kaur J., Mogaji E., Paliwal M., Jha S., Agarwal Sh., Mogaji S.A. (2023). Consumer behaviour in the Metaverse. Journal of Consumer Behaviour. Special Issue, 1-18, DOI: https://doi.org/10.1002/cb.2298
- Kye, B., Han, N., Kim, E., Park, Y., & Jo, S. (2021). Educational applications of Metaverse: Possibilities and limitations. Journal of Educational Evaluation for Health Professions, 18, 1–13, DOI: https://doi.org/10.3352/jeehp.2021.18.2.22
- Kushwaha, P.B., Singh, R.K., Tyagi, V., Singh, V. (2020). Ethical Relationship Marketing in the Domain of Customer Relationship Marketing. Test Engineering and Management, 83, 16573 16584. Obtained from: https://www.researchgate.net/publication/340952755_Ethical_Relationship_Marketing_in_the_Domain_of_Customer_Relationship_Marketing (10.08.2022).
- Liu, Ch., Wang, Sh., & Jia, G. (2020). Exploring E-commerce big data and custom-er-perceived value: An empirical study on Chinese online customers. Sustainability; 12(20):8649. DOI: https://doi.org/10.3390/su12208649
- McKinsey & Company (2023a). What is Gen Z? Available at https://www.mck-insey.com/featured-insights/mckinsey-explainers/what-is-gen-z#/ [date of access: 31.12.2023].
- McKinsey & Company (2023b). The state of AI in 2023: Generative AI's breakout year, available at https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-ais-breakout-year [date of access: 31.12.2023].
- Mahmoud A. B. (2023). The Metaverse and Web 3.0: Revolutionizing Consumption and Communication for the Future. [In] P. Keikhosrokiani (Ed.), Consumer Behavioural Analytics in Metaverse and the Adoption of a Virtual World, Hershey, Pennsylvania, US: IGI Global, pp. 1-25, https://en.wikiversity.org/wiki/Motivation_and_emotion/Book/2020/Self-determination_theory_in_education
- Mitrega, M., & Pfajfar, G. (2015). Business relationship process management as company dynamic capability improving relationship portfolio. Industrial marketing management, 46, 193-203. DOI: http://dx.doi.org/10.1016/j.indmarman.2015.02.029.
- Mittal G. and Rohit B. (2023). Driving Force Behind Consumer Brand Engagement: The Metaverse. [in:] Cultural Marketing and Metaverse for Consumer Engagement, Chapter 12, 164-181, DOI: 10.4018/978-1-6684-8312-1.ch012
- Mishra O., Dharmavaram V.G. (2023). Metaverse And Marketing Communication: A Systematic Literature Review. Journal of Content Community and Communication. 17. 2456-9011. DOI: 10.31620/JCCC.09.23/05
- Milmo D. (2021). Enter the Metaverse: the digital future Mark Zuckerberg is steering us towards, The Guardian, available at: https://www.theguardian.com/technology/2021/oct/28/facebook-mark-zuckerberg-meta-Metaverse [accessed on 01.01.2024].

- Nover S. (2021). The meaning of the 'Metaverse,' and all the terms you need to understand it, available at: https://qz.com/2089665/everything-you-need-toknow-to-understand-the-Metaverse/ [accessed on 01.01.2024].
- Ozkan, M., Solmaz, B. (2015). The changing face of the employees: generation Z and their perceptions of work, Procedia Economics and Finance, 26, 476-483, DOI:10.1016/S2212-5671(15)00876-X
- Periyasami S., Periyasamy A.P. (2022). Metaverse as Future Promising Platform Business Model: Case Study on Fashion Value Chain, *Businesses*, 2(4), 527-547, DOI: 10.3390/businesses2040033
- Sanchez-Fernandez, Raquel, M. Angeles Iniesta-Bonillo, and Morris B. Holbrook (2009), *The Conceptualization and Measurement of Customer Value in Services*, International Journal of Marketing Research, 15 (1), 93-113.
- Shin, H., Eastman, J., Li Y. (2022). Is it love or just like? Generation Z's brand relationship with luxury, Journal of Product & Brand Management, 31(3).
- Srivastava, P., Owens, D. L. (2010). Personality traits and their effect on brand commitment: an empirical investigation. Marketing Management Journal, 20(2), 15-27. personality.
- Thangavel, P., Pathak, P., Chandra, B. (2022). Consumer Decision-making Style of Gen Z: A Generational Cohort Analysis. Global Business Review, 23(3), 710-728. https://doi.org/10.1177/0972150919880128
- Veloutsou, C., Black, I. (2020). Creating and managing participative brand communities: The roles members perform. Journal of Business Research, 117, pp. 873-885. https://doi.org/10.1016/j.jbusres.2019.06.032
- Zhang, B., Zhu, J., Su, H. (2023). Toward the third-generation artificial intelligence. Science China Information Sciences, 66(2), 121101, DOI: https://doi.org/10.1007/s11432-021-3449-x