

THE EFFECT OF IN-GAME ADVERTISING AS A MARKETING TECHNIQUE ON THE PURCHASING BEHAVIOR OF GENERATION Z IN TURKEY

Selminaz ADIGÜZEL

^{1,2}Department of International Trade and Logistics, Applied Sciences Faculty of Siverel, Harran
University

Email: sadiguzel@harran.edu.tr (correspondence)

Abstract

The purpose of this study is to investigate the effect of in-game advertisements, which are a marketing technique, on the purchasing behaviors of Muslim youth and the purchasing behaviors of these youth in Generation Z. The survey of the study was prepared by Betül Başer and Özgün Arda Kuş, a 31-question survey was applied to 250 volunteer students by e-mail after receiving permission from the researchers and receiving approval from the ethics committee. The survey data was uploaded to the SPSS 25 program and the frequencies and percentages of the data were obtained. In the study, analyses were conducted using quantitative research methods such as variance analysis (ANOVA), t-test and Tukey test. According to the results of the research, significant differences were determined among Generation Z according to gender, age and education level. In order to make Islamic production and investments according to new trends, it is necessary to know the characteristics of the generations well and to develop Islamic applications and software suitable for these characteristics. Since Generation Z cares about games and the advertisements they encounter during the game, it is important for Islamic investments and productions to be developed in a way that has Islamic characteristics.

Keywords: *Purchasing Behaviors of Generation Z, Game Advertisements, Marketing, Advertisements, Generation of X, Y, Z.*

Introduction

The purpose of this research is to provide insights to manufacturers working in the supply chain, particularly in the fields of marketing and international trade. Within the framework of modern marketing approaches, companies that understand their customers well gain significant competitive advantages. This focus on understanding customers drives companies to dedicate considerable time and effort to market segmentation strategies. Manufacturers' ability to align production with customer demands relies on programs developed by software developers in e-commerce. These software programs are based on research articles and scientific findings. Directing production according to consumer trends provides a competitive edge.

This research aims to provide preliminary information to manufacturers by examining the e-commerce trends of university students in Turkey, specifically those in Generation Z who play web-based games. The study will include game-playing members of Generation Z as the sample group. In the first and second sections of the research, a literature review will be conducted on topics such as electronic commerce, online shopping behavior, the concept of advertising games, decision-making and online consumer decision-making styles, factors influencing purchasing decisions, impulsive purchasing behavior, hedonism in impulsive buying, unplanned online purchases, and the online shopping behavior of university students.

In the third section, the results of the survey conducted as part of the research will be evaluated. The study aims to reach 200 participants using a random sampling method. The survey includes a total of 31 questions, and participants will indicate their level of agreement on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The data will be analyzed using the SPSS 25 statistical program. The analysis will include frequency and percentage distributions, as well as t-tests and ANOVA tests, based on variables such as gender, age, and education.

Turkey, with a population of 84 million, is 94% Muslim, and the rate of young people playing games is notably high. In digital games, the representation of Muslims can be divided into two categories: games produced by Western developers and games produced in the Islamic world. In games developed by Western producers, the representation of Muslims often mirrors the portrayal of Muslims in Western media. All participants in this study are Muslim, and the games they play are produced by Western developers. This highlights the need to understand the characteristics of generations and develop Islamic applications and software that align with these characteristics. Since Generation Z values games and the advertisements, they encounter within them, it is crucial for Islamic investments and productions to incorporate Islamic principles.

This research provides a perspective on marketing components through an Islamic lens. It emphasizes the need for marketers to consider cultural, generational, and

religious differences when preparing advertising and game content targeted at Muslim and Arab countries. Accordingly, the study evaluates marketing practices in Islam based on the Quran and Sunnah and provides guidance to investors and marketers producing content for these societies. As the Muslim population increases in Western Europe and the United States, the demand for halal markets and products is also rising. According to Alserhan (2010), entrepreneurs will need to meet the demands of this growing market, where the halal sector is expected to grow by 15% annually. Muslims constitute approximately 25% of the global population, totaling around 2 billion people.

Sectors such as Islamic tourism, Islamic food, banking, and finance are designed in accordance with the Quran, hadiths, and fiqh, with marketing activities carried out for new generations while respecting freedom of belief. Generation Z expects advertisements in games to be educational and reliable. Islamic marketing can be defined as "the wisdom of meeting the needs of customers with good behavior, offering products with the mutual consent of the buyer, achieving material and spiritual well-being in this world and the hereafter, and raising consumer awareness through ethical advertising." This is supported by the Quran, which states: "Do not consume one another's wealth unjustly, but only [do so] through lawful trade with mutual consent" (Quran, 4:29).

Traditional marketing, on the other hand, is often driven by desires (Cooke et al., 1992). Muslim societies have distinct food, clothing, and lifestyle preferences. For example, some Muslims prefer restaurants that are free of pork and alcohol (e.g., Malaysia). Halal products, referred to as "*Tayyibat*" in the Quran, are defined as healthy, pure, safe, lawful, and beneficial (Quran, 2:172; 2:168). The term *Tayyibat* is repeated 18 times in the Quran. Ethical advertising in Islam prohibits misleading, deceptive, or fraudulent actions, as emphasized in the verse: "Those who exchange the covenant of Allah and their oaths for a fleeting gain will have no share in the Hereafter" (Quran, 3:77).

One of the foundational concepts in modern marketing is the marketing mix, which refers to the set of controllable, tactical marketing tools that a firm combines to elicit the desired response from its target market (Kotler and Armstrong, 2006). This research underscores the importance of aligning marketing strategies with Islamic values and ethics to effectively engage Muslim consumers across generations.

Generation X

Influencers, whose primary purpose is to impact consumer behavior, present hundreds of products to audiences daily, regardless of their quality (Kırık and Köyüstü, 2018). According to McCrindle, the average time period between the birth of a generation's parents and the birth of the generation itself is referred to as a generation (2014: 1–4). Throughout history, humanity's evolving needs have influenced perceptions of various events, leading to changes in cultural and social behaviors (Şalap, 2016: 6; Özdemir, 2019: 128). This evolution has made intergenerational purchasing behavior a

key focus of marketing science.

The term generation refers to a group of individuals who share common traits such as years of birth, societal influences, cultural and social climates, and exposure to significant economic, political, and legal movements during their formative years. Each generation possesses unique characteristics, evaluation criteria, and both positive and negative aspects (Hatice, 2011). According to Karl Mannheim, generations are communities that share common habits and cultural and historical processes within the same societal context (Mannheim, 1950).

Consumers in the digital market—primarily through social media—tend to embrace innovation and technology. They often prefer niche products through digital commerce rather than traditional retail and may choose products based on advertisements seen in games. Their purchasing behaviors are influenced by social values, political and environmental concerns, brand loyalty, trust in social media influencers, and personalized preferences.

Generation Z, in particular, is an influential demographic in the dynamic consumer market. It represents an innovative audience that companies aiming to stay competitive in the digital economy cannot overlook. Research indicates that generational cohorts (X, Y, and Z) exhibit distinct behaviors, necessitating an investigation into whether Generation Z is influenced by advertisements encountered during games.

This research aims to explore the attitudes of Generation Z toward advertisements within mobile games from an Islamic perspective. It examines their motivations for engaging with mobile games, their consumer profiles, and the effects of gaming on their purchasing habits. Key areas of focus include the amount of time Generation Z spends online daily, the devices they use, their monthly expenditures on in-game advertisements, their preferred gaming platforms, and the influence of gender and education on their behaviors. This study also seeks to compare these behaviors with those of other generational cohorts.

All participants in the study are Muslims, and the games they play are predominantly produced by Western developers. One of the main objectives is to assess the perceptions of Muslim youth regarding in-game advertisements. Additionally, this research investigates the reasons why Generation Z, which actively uses mobile applications and social media, frequently prefers mobile games.

This study contributes to the literature in the field of marketing by offering insights into the behaviors and preferences of Generation Z. Its importance lies in understanding the gaming and consumer habits of this generation. According to Cognitive Market Research, the global gaming market is projected to reach USD 251.27 billion by 2024 and is expected to grow at a compound annual growth rate (CAGR) of 9.60% between 2024 and 2031.

Generational behavior is shaped by shared temporal, economic, and social experiences. The literature identifies these groups as Generations X, Y, Z, and Alpha, each with unique defining characteristics.

Figure 1. Generations and Their Measures

CATEGORY	BUILDERS	BABY BOOMERS	GENERATION X	GENERATION Y	GENERATION Z	GEN ALPHA
Slang terms	 We prefer proper English if you please Born: < 1946 Age: 74+	 Be cool Peace Groovy Way out Born: 1946-1964 Age: 55-73	 Dude Ace Rad As if Wicked Born: 1965-1979 Age: 40-54	 Bling Funky Doh Fashizz Whassup? Born: 1980-1994 Age: 25-39	 Fam GOAT Slay Yass queen Born: 1995-2009 Age: 10-24	 lit yeet hundo oof m idrc Born: 2010-2024 Age: under 10
Social markers	World War II 1939-1945	Moon landing 1969	Stock market crash 1987	September 11 2001	GFC 2008	Trump / Brexit 2016
Iconic cars	 Model T Ford Final, 1927	 Ford Mustang 1964	 Holden Commodore 1978	 Toyota Prius 1997	 Tesla Model S 2012	 Autonomous vehicles 2020s
Iconic toys	 Roller skates	 Frisbee	 Rubix cube	 BMX bike	 Folding scooter	 Fidget spinner
Music devices	 Record player LP, 1948	 Audio cassette 1962	 Walkman 1979	 iPod 2001	 Spotify 2008	 Smart speakers Now
Leadership style L - Leader I - New leaders	 Controlling	 Directing	 Coordinating	 Guiding	 Empowering	 Inspiring
Ideal leader	Commander	Thinker	Doer	Supporter	Collaborator	Co-creator
Learning style	Formal	Structured	Participative	Interactive	Multi-modal	Virtual
Influence/advice	Officials	Experts	Practitioners	Peers	Forums	Chatbots
Marketing	Print (traditional)	Broadcast (mass)	Direct (targeted)	Online (linked)	Digital (social)	In situ (real-time)

Source: (<https://wearesocial.com/digital-2022>)

Generation X

Generation X is generally defined as individuals born between 1965 and 1979 (Dana, 2005: 54).

Generation Y

Born between 1980 and 1989, this generation represents the last group to enter the current workforce. Often described as the children of a world marked by high individualism and shaped by the early effects of globalization, they are considered one of the most educated, communicative, and self-confident generations in recent history. Generation Y seeks a productive and purposeful organizational culture in their workplaces and are particularly sensitive about fostering such an environment. They are optimistic and value a fun and engaging work atmosphere. Additionally, Generation Y is characterized by their strong focus on personal goals and interests, willingness to take on responsibilities, and dedication to achieving their career aspirations, often surpassing the efforts of previous generations.

Generation Z (born 1995-2009 / 13-27 years old)

represents the youngest generation examined in this article, consisting of individuals born between 1997 and 2012, who are currently 25 years old and younger. This generation has grown up in a digitally dominant world where technology has been an integral part of their lives since birth, literally at their fingertips. Research indicates that 95% of Generation Z owns or has access to a smartphone, and nearly all (97%) use the internet daily. Often referred to as the "Digital Generation," these individuals are characterized by their dependence on advanced technological devices and the continually evolving internet infrastructure (Kavalcı, 2016: 1033-1050).

Generation Z's distinguishing traits include their ambition and materialistic outlook. They possess the ability to rapidly acquire, analyze, and interpret information (Mishra & Shulgana, 2012: 97). Additionally, the pervasive use of smartphones has significantly influenced how they spend their time, contributing to notable trends such as increased levels of anxiety, depression, and suicidal tendencies in recent years (Twenge, 2018, pp. 23-26). Born into an era of groundbreaking technological innovations, Generation Z is highly skilled in using digital tools and spends a significant amount of time engaging in activities like texting, surfing the internet, and playing online games (Türk, 2013, p. 21).

This digital immersion has not only shaped their lifestyles but also established Generation Z as a unique demographic in terms of behaviors, preferences, and challenges.

Generation Alpha

As a result of the digital transformation, the world is undergoing rapid and continuous change. This ongoing evolution has given rise to Generation Alpha, a cohort defined not by historical or social events but by their deep connection to technology. Generation Alpha includes individuals born from 2010 onwards, making them the first generation to grow up entirely in a fully digital world. Notably, their emergence coincides with the launch of Apple's first iPad, symbolizing the beginning of an era where technology dominates daily life (Generation Alpha Will Lead a 100% Digital World, 2024).

X Y Z Generation and Game

The number of gaming sessions in January 2024 increased by 3% compared to January 2023. Individuals who play games on digital platforms such as computers, tablets, and mobile phones are referred to as gamers. These players often utilize strategic advantages in the gaming market to enhance their experiences. As the number of social media applications has increased, gaming content has diversified significantly. Sports tournaments, social media integration with virtual reality (VR), and various cloud-based games are continuously evolving, leading to a shift in the demographics and numbers of gamers.

The growing number of players has enriched the gaming community, creating a larger and more lucrative market. According to Deloitte research, 40% of Generation Z and Generation Y socialize more through video games than through traditional face-to-face interactions. Industry analysts suggest that the social gaming market is projected to reach \$76.8 billion by 2029, growing at a compound annual growth rate (CAGR) of 16.01% (Report, 2024). Developers are increasingly incorporating social features into gaming applications, making social gaming a vibrant and engaging market. Hyper-casual game developers, in particular, are blending social and gaming elements to enhance user engagement.

Interestingly, Deloitte's research indicates that Generation Y has a greater preference for mobile games compared to Generation Z and Generation Alpha. Teenagers, however, tend to favor multiplayer games that facilitate interaction with peers. The gaming market also aligns itself with global efforts to combat climate change, contributing to sustainable energy solutions. Advances in cloud gaming services now enable players to stream high-quality games across various devices without the need for expensive hardware, further driving innovation and accessibility in gaming.

In 2023, significant advancements in gaming technology continued to emerge. For example, in June 2023, Electronics Arts Inc. launched Super Mega Baseball 4, representing a major upgrade in the series' history. The integration of social and multiplayer features further enhances user engagement, propelling market growth (Bali, 2024).

Generation Z, known for being tech-savvy and highly sensitive to global climate change issues, values corporate social responsibility initiatives, such as sustainability. To effectively engage this generation, companies need to adopt multi-channel marketing strategies that influence their purchasing decisions. Generation Z is risk-averse but highly trusting of influencers and heavily influenced by social media. They often share their gaming experiences on platforms like Reddit, Discord, and YouTube and communicate with their peers through online chat features. This generation also utilizes mobile food services while gaming, showcasing their preference for convenience and multitasking.

Generation Z demonstrates strong hand-eye coordination, a results-oriented mindset, and a tendency to make impulsive purchasing decisions. They have grown up in a world of consumption and frequently turn to new products without hesitation (Taş, Demirdöğmez, & Küçüköğlü, 2017). Technology is an integral part of their lives, and they find it difficult to imagine a life without it. This generation expresses themselves effectively, consumes information quickly, and lives in better conditions with greater opportunities than previous generations (Bayrakdaroğlu & Özbek, 2018; Aydın & Başol, 2014). They also socialize extensively through social media, using technology more adeptly than older generations (Tuncer & Tuncer, 2016).

Generation Z has been characterized by various names, such as the "Internet Generation," "Next Generation" (Levickaite, 2010: 173), "Crystal Generation" (Öz, 2015: 14), "Digital Children" (Tekin, 2015: 63), and the "We Generation" (Kavalcı & Ünal, 2016: 1036). These labels reflect their deep integration with technology and their unique role in shaping digital consumption patterns.

Literature Review

In the article "Gen Alpha and Gen Z Gamers: How They Engage with Games," Andrea Knezovic (2024) highlights notable differences between Gen Alpha and Gen Z gamers, emphasizing the importance of understanding these distinctions in shaping the future of gaming. Generation Alpha (born in 2010 or later, currently aged 10-12) and Generation Z (born between 1995 and 2009, currently aged 13-27) are deeply invested in gaming, with Gen Alpha demonstrating a particularly strong engagement, surpassing previous generations.

According to Knezovic's research, individuals spend most of their leisure time on social media (20%) and watching broadcast TV (20%), with video games accounting for 14% of their free time. However, generational differences become apparent in the breakdown of these activities. Generation Z spends less time watching TV but allocates 23% of their leisure time to social media and 17% to gaming and gaming-related content. In contrast, Generation Alpha dedicates 21% of their free time to gaming, making it their primary source of entertainment. This underscores the critical role gaming and gaming content play for both generations, with particular emphasis on Gen Alpha (Knezovic, 2024).

The AdColony Report (2024) further reveals that Gen Z's relationship with technology is heavily mobile-centric. While 97% of Gen Z own a smartphone, only 69% own a computer, signaling a decline in the importance of laptops and desktops. Gen Z spends more time on mobile devices than on computers, with 61% preferring to shop online using their smartphones. For Gen Z, smartphones are considered the most important device by 78% of the group, compared to lower percentages for Millennials (74%), Generation X (61%), and Baby Boomers (37%). QR code usage is also notable, with 41% of young people aged 16-24 using this technology within the past month, especially in Asian countries (AdColony, 2024).

The unique characteristics of Gen Z extend beyond their technological habits. According to Yüksekbilgili (2013), generational traits affecting business life include qualities such as global-mindedness, social connectivity, and visual orientation. This generation has grown up in a truly globalized world where digital technology overcomes language barriers and shapes cultural and fashion trends (Impact on the Gaming Market – The Big Picture, 2021). McCrindle's infographic (2022) sheds light on Gen Z's leadership preferences: unlike earlier generations, they favor collaborative and empowering leaders over authoritarian figures. Additionally, Gen Z's marketing preferences lean toward

socially driven, digital environments. When asked about the most significant challenges during social isolation, Gen Z cited boredom (51%), lack of physical activity (47%), and increased feelings of loneliness (41%) as their top concerns (McCrindle, 2022).

Gaming trends in Turkey also reflect generational preferences. According to industry data, 79% of adults in Turkey play mobile games, with a nearly even gender split: 50.2% male and 49.8% female. The age distribution of mobile gamers is as follows: 16-24 years old (23.9%), 25-34 years old (28.5%), 35-44 years old (25.3%), and 45+ years old (22.3%). Popular game genres among Turkish players include action-adventure (49.2%), puzzle (46.2%), racing (45.7%), and sports (45.6%). Strategy (39.3%), simulation (38.3%), card games (26.3%), and role-playing games (21.1%) also have a significant following. Paid games are particularly popular in Turkey, further highlighting local gaming preferences.

The research suggests that Gen Z and Gen Alpha are pivotal demographics for the gaming industry. Gen Z's strong mobile-first orientation and Gen Alpha's unparalleled engagement with gaming as a primary form of entertainment offer valuable insights for developers and marketers. To remain competitive, businesses must consider the evolving habits of these generations and tailor their strategies to align with their preferences for technology, social interaction, and immersive gaming experiences.

Research Problem

Technological developments and the diverse opportunities presented by the postmodern world align closely with the consumption habits of Generation Z university students. The primary focus of generational research is to explore what has changed and transformed in the postmodern world, particularly in the context of the social, economic, and technological shifts impacting Generation Z. Understanding these university students, who are at the forefront of this change, and evaluating life through their perspective—rather than through external judgments—can provide valuable insights into the concept of "generation."

As the zeitgeist evolves, generations adapt, differentiating themselves in form and priorities. Generation Z, representing nearly 25% of Turkey's population, is deeply immersed in technology and the accelerating pace of change. This tech-savvy generation is characterized by a strong connection to digital environments, driven by a "consumption frenzy" and the widespread popularity of gaming activities. However, this engagement with digital platforms also highlights challenges, such as the "reading comprehension" skills deficiency identified by PISA results among students in Turkey.

The central problem of this research is to examine whether Generation Z university students are influenced by advertisements in digital games. The study also aims to explore their preferences for Islamic-themed games within the digital landscape and investigate how digital gaming affects their purchasing behavior, considering variables such as education, gender, and age. Additionally, the research seeks to identify the postmodern consumption habits of Muslim youth from Generation Z, their expectations for fully digital games in the future, and potential recommendations that could support further academic studies on the subject.

The postmodern world, with its emphasis on uncertainty and multiple-choice options, aligns with the consumption behaviors of Generation Z university students. Simultaneously, it underscores a pressing concern: the issue of digital literacy within this demographic. Technological advancements are reshaping all aspects of life, including communication methods, further expanding the ways individuals interact.

The focal point of this research is Generation Z university youth, aiming to observe the transformations occurring in the postmodern world and how these changes influence social, economic, and technological dimensions. By examining this generation's evolving behaviors, preferences, and challenges, the study seeks to contribute to a deeper understanding of the dynamics shaping Generation Z in the digital age (Korkmaz, 2022)..

Research Methods

A quantitative descriptive model was employed in this research. A survey was administered to university students to investigate the purchasing behavior of Generation Z in relation to in-game advertisements. Approval for the survey questions was obtained from the Harran University Ethics Committee.

The research specifically aimed to explore various aspects of Generation Z's interactions with in-game advertisements, including the tools they use to play games, the frequency and duration of their gaming sessions, the types of products they purchase during gameplay, and the number of games they play monthly. Additionally, the study examined which gaming platforms they prefer, the most played game types, and how they engage with game-related groups or seek out game information. The survey also assessed whether participants trust advertisements they encounter in games, their experiences with products or services purchased within games, and what content they expect advertisements in games to feature.

The research is guided by the following hypotheses:

- H1: There is a significant difference between Generation Z, who play games on the internet, and their shopping habits according to gender.
- H2: Young people who play games on the Internet find advertising games educational.
- H3: Advertisements in games influence Generation Z's preferences for products or services.
- H4: Advertisements in games impact Generation Z's decisions to purchase a product or service.
- H5: Generation Z tends to buy more products or services than they need due to advertisements in games.
- H6: Generation Z thinks that advertisements in games are a guide in purchasing.

Finding and Analysis

In data analysis, determining whether the data is normally distributed is crucial as it dictates the choice of statistical tests to be used in the research. If the data is normally distributed, parametric tests should be applied. However, if the assumptions of normality are not met, nonparametric tests should be selected. Parametric tests are often preferred by researchers because they tend to be more powerful than nonparametric tests.

In this research, a sample was drawn from the population to assess normality, and a validity and reliability test, specifically the skewness-kurtosis test, was performed. The results of the skewness and kurtosis tests are presented in the table below.

Table 1. Skewness, Kurtosis Test

Skewness		Kurtosis	
Statistic	Std. Error	Statistic	Std. Error
-.695	,236	-.484	,467

If the skewness coefficient is less than -1 or greater than +1, the distribution is considered highly skewed. If the skewness coefficient falls between -1 and -0.5 or +0.5 and +1, the distribution is moderately skewed. Kurtosis, on the other hand, measures how the peaks of the data deviate from normality, indicating whether the distribution is flat or sharp. In a perfectly normal distribution, the kurtosis value is 3, but some statistical software (such as SPSS) subtracts 3 from the calculated coefficient, resulting in a kurtosis value of 0 for a normal distribution.

In this case, since the skewness is very close to zero, we can conclude that the distribution is symmetric (www.medium.com, 2024). According to Table 1, the skewness value of -0.695 suggests that the distribution is skewed to the left, meaning it has a longer tail with extreme values on the right. As a result, the mean is lower than the median.

Regarding the participants' shopping behavior, 38.5% of the participants stated that they do not shop while playing games on the internet, while 61.5% indicated that they do shop while playing.

The demographic characteristics of the participants are as follows:

Table 2. The demographic characteristics of the participants

Education Situation		Two Year College		University		Master Degree		PhD graduate	
F	%	5	%4.76	55	%52.3	34	% 42.3	11	%10,4
Age		After 2000		1996-2000.					
f	%	57	%	48	% 46,2				
Gender		Women		Men					
f	%	53	%57	51	%53.8				

The demographic characteristics of the participants show that 57% are male, while 53.8% are female. Additionally, 53% of the participants were born between 2001-2005, and 46.2% were born between 1996-2000. The t-test results, as shown in Table 3, were used to examine the participants based on the gender variable. When analyzing the statement, "Ads in games influence your choice about a product or service you buy," there was a significant difference between female and male participants. The significance value of 0.00 indicates a statistically significant difference between the two groups. Specifically, when participants were asked if "Advertisements in games affect Generation Z's choice in

purchasing a product or service," the average response for women was $X = 3.2000$, while for men it was $X = 2.9091$. This confirms Hypothesis H4.

Table 3. Gender T-Test Results

	Levene's Test for Equality of Variances					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Ads in games influence your choice of a product or service you buy	270,129	,000	1,365	103	,175	,29091
			1,422	63,033	,160	,29091
I recommend the products or services when I see in the advertisements in the games to my close circle.	18,635	,000	-11,354	103	,000	-1,35818
			-11,610	90,120	,000	-1,35818
-Individuals tend to buy more products or services than they need because of game advertisements	,461	,499	19,751	103	,000	2,30545
			20,024	99,301	,000	2,30545
Generally fun or enjoyable to watch (see) advertisements in games	10,815	,001	3,395	103	,001	,77818
			3,474	89,194	,001	,77818
Advertisements in games show that the features you look for in products or services are available.	15,453	,000	-13,041	103	,000	-1,21273
			-13,121	102,893	,000	-1,21273
Game advertisements are a valuable source of information about products or services.	4,293	,041	8,804	103	,000	1,12182
			8,971	94,19	,000	1,12182
Advertisements in games can lead individuals to purchase products that exceed their budgets for the sake of showing off.	91,792	,000	3,266	103	,001	,78364
			3,400	64,576	,001	,78364
Paid games are more enjoyable.	17,393	,000	5,283	103	,000	,6691
			5,393	92,280	,000	,6691
Advertisements in games contain surprising or surprising elements.	38,001	,000	-1,776	103	,079	-,31273
			-1,837	73,887	,070	-,31273
Game advertisements provide information about the latest products or services in the market.	61,580	,000	5,154	103	,000	,92364
			5,364	64,826	,000	,92364
Advertisements in games are more entertaining than advertisements in other media (television, newspaper, radio, and outdoors).	15,507	,000	-7,048	103	,000	-1,19818
			-7,280	75,922	,000	-1,19818

When examining the statement "Advertisements in games are a valuable source of information about products or services," the p-value for the gender variable was 0.41, which is greater than 0.05, indicating that there is no significant difference between men and women. This suggests that both genders view in-game advertisements similarly when it comes to their role in providing product or service information. However, when

analyzing other statements, a different trend emerges. For example, the statement "Individuals tend to buy more products or services than they need due to advertisements in games" yielded a significant result. The p-value for the difference between men and women on this statement was 0.00, which is less than 0.05, indicating a significant difference based on gender. In fact, the averages for responses to this statement were $X = 3.5600$ for women and $X = 1.2545$ for men, confirming Hypothesis H5 that Generation Z tends to buy more products or services than they need because of advertisements in games. This suggests that women in Generation Z are more influenced by in-game advertisements to purchase products or services than men. Furthermore, the statement "Paid games are more entertaining" and the belief that "Advertisements in games are more entertaining than advertisements in other media" also showed a significant gender difference with a p-value of 0.00, indicating that women find in-game advertisements more entertaining than men do.

Table 4. Perception by Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Ads in games influence your choice of a product or service you buy	Woman	50	3,2000	,40406	,05714
	Man	55	2,9091	1,45644	,19639
I recommend the products or services you see in the advertisements in the games to your closed circle.	Woman	50	1,2600	,44309	,06266
	Man	55	2,6182	,73260	,09878
-Individuals tend to buy more products or services than they need because of game advertisements	Woman	50	3,5600	,50143	,07091
	Man	55	1,2545	,67270	,09071
Generally fun or enjoyable to watch (see) advertisements in games	Woman	50	3,5600	,83690	,11836
	Man	55	2,7818	1,41016	,19015
Advertisements in games show that the features you are looking for in products or services are available	Woman	50	1,2600	,44309	,06266
	Man	55	2,4727	,50386	,06794
Advertisements in games are a valuable source of information about products or services	Woman	50	3,5400	,50346	,07120
	Man	55	2,4182	,76233	,10279
Advertisements in games can lead individuals to purchase products that exceed their budgets for the sake of showing off.	Woman	50	3,6200	,49031	,06934
	Man	55	2,8364	1,63031	,21983
Paid games are more enjoyable	Woman	50	2,360	,4849	,0686
	Man	55	1,691	,7667	,1034
Advertisements in games	Woman	50	2,3600	,48487	,06857

contain surprising or surprising elements.	Man	55	2,6727	1,15557	,15582
Game advertisements provide information about the latest products or services in the market.	Woman	50	3,1600	,37033	,05237
	Man	55	2,2364	1,21661	,16405
Advertisements in games are more entertaining than advertisements in other media (television, newspaper, radio, and outdoors).	Woman	50	1,6200	,49031	,06934
	Man	55	2,8182	1,10706	,14928

H1 posits that there is a significant difference between Generation Z gamers' shopping habits and their gender. The responses to this hypothesis revealed that women are more affected by the ads they watch during games compared to men. Women's purchasing preferences are more strongly influenced by in-game advertisements, and they tend to buy more products or services than they need as a result. On the other hand, men tend to see more ads in games than women and often recommend these ads to people around them. Additionally, women indicated that watching in-game ads is usually more enjoyable, which makes them more likely to purchase products they might not need. Furthermore, the enjoyment of watching ads in games sometimes leads individuals, particularly women, to buy items that exceed their budget, often for the sake of showing off.

In response to the question "Do you think games are educational?" 53% of the participants answered yes, while 47% disagreed. This confirmed H2, showing that Generation Z does find educational value in games. When participants were asked, "Have you ever had a purchasing experience after seeing a product or service in a game?" the majority (74.3%) answered no, indicating that they did not purchase anything after seeing an in-game advertisement. However, 13.3% confirmed that they bought the product, 6% were still considering it, and another 6% made the purchase but were not satisfied.

Regarding H3, which investigates whether advertisements in games affect Generation Z's purchasing decisions, the analysis revealed that women had a higher average score of $X = 3.2000$, compared to men's average of $X = 2.9091$. This indicates that women are more influenced by in-game advertisements when choosing products or services to purchase.

Table 5. Participants by Income Status

F	%	Valid Percent
5000 TL	22	20,6
5000-6000 TL	22	20,6
7001-9000 TL	30	28,0
More than 10 000 TL	31	29,0
Total	105	98,1

There is a significant difference between women and men when it comes to the influence of in-game advertisements on their purchasing preferences. Specifically, advertisements in games have a more noticeable impact on the preferences of Generation Z women for a product or service. The table below illustrates the income levels of the participants. When analyzing the participants' income statuses, it was found that 22 people had an income of 5000 TL, 22 people earned between 5000-6000 TL, 30 participants had an income range of 7001-9000 TL, and 31 participants earned 10000 TL or more.

Further examination of the participants' survey responses, based on their income levels, was conducted using the Tukey Test. The analysis of these results provided additional insights into how income influences their responses to advertisements in games. These findings will be detailed in the table below.

Table 6. Income Status -Tukey Test 95% Confidence Interval

(I) income	(J) income	Mean Difference	Std. Error	Sig.	Lower Bound	Upper Bound
5000	5000-6000	-2,09091*	,23297	,000	-2,6995	-1,4823
	7001-9000	-1,22121*	,21688	,000	-1,7878	-,6546
	More than 10,000	-1,16422*	,21540	,000	-1,7269	-,6015
5000-6000	5000	2,09091*	,23297	,000	1,4823	2,6995
	7001-9000	,86970*	,21688	,001	,3031	1,4363
	More than 10 000	,92669*	,21540	,000	,3640	1,4894
7001-9000	5000	1,22121*	,21688	,000	,6546	1,7878
	5000-6000	-,86970*	,21688	,001	-1,4363	-,3031
	More than 10 000	,05699	,19789	,992	-,4600	,5739
More than 10 000	5000	1,16422*	,21540	,000	,6015	1,7269
	5000-6000	-,92669*	,21540	,000	-1,4894	-,3640
	7001-9000	-,05699	,19789	,992	-,5739	,4600

When examining the research participants based on their income status, several statements regarding in-game advertisements were analyzed. The following statements were investigated:

"Advertisements in games affect our preference for a product or service."

"I recommend products or services I see in advertisements in games to my close circle."

"Individuals tend to buy more products or services than they need due to advertisements in games."

"Advertisements in games are usually fun or enjoyable to watch (see)."

"Advertisements in games show that the features you are looking for are available in products or services."

"Advertisements in games are a valuable source of information about products or services."

"Advertisements in games can lead individuals to buy products that exceed their budgets just for the sake of showing off."

"Paid games are more entertaining."

"Advertisements in games contain surprising or surprise elements."

"Advertisements in games provide information about the latest products or services on the market."

"Advertisements in games are more entertaining than advertisements in other media (television, newspaper, radio, outdoor)."

For each statement, the p-value from the Tukey Test was used to determine whether there was a statistically significant difference between the responses based on income levels. If the p-value < 0.05, this indicates a significant difference between the income groups' responses. On the other hand, if the p-value ≥ 0.05, there is no significant difference between the groups, meaning the result is statistically insignificant. In this study, the significance value was 0.00, indicating a statistically significant difference between the groups' responses as the income status of participants varied.

These findings suggest that as participants' income status changes, their perspectives on the impact of advertisements in games also differ, highlighting the importance of income as a variable influencing gaming behavior and advertising perception.

Table 7. Anova Test

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Watching ads in games (to see) is generally fun or is it enjoyable?	Between Groups	29,682	3	9,894	39,485	,000
	Within Groups	25,308	101	,251		
	Total	54,990	104			
Advertisements in games items full of surprises or surprises contains	Between Groups	33,783	3	11,261	21,702	,000
	Within Groups	52,408	101	,519		
	Total	86,190	104			
Advertisements, products, or advertisements in games valuable	Between Groups	39,102	3	13,034	34,956	,000
	Within Groups	37,660	101	,373		

information about services is the source	Total	76,762	104			
Advertisements, products, or advertisements in games Valuable information about services is the source	Between Groups	3,943	3	1,314	2,292	,083
	Within Groups	57,905	101	,573		
	Total	61,848	104			
Advertisements in games, products or what features are you looking for in services? It shows that the brand is present	Between Groups	38,305	3	12,768	10,814	,000
	Within Groups	119,257	101	1,181		
	Total	157,562	104			
Advertisements in games are the latest in the market information about products or services	Between Groups	53,035	3	17,678	14,525	,000
	Within Groups	122,927	101	1,217		
	Total	175,962	104			
Individuals are affected by advertisements in games. Buy more products or services than you need tends to take	Between Groups	8,973	3	2,991	3,876	,011
	Within Groups	77,941	101	,772		
	Total	86,914	104			
Advertisements in games only attract individuals. exceeding their budget to show off	Between Groups	75,756	3	25,252	52,044	,000
	Within Groups	49,006	101	,485		
	Total	124,762	104			
Advertisement society in games can turn into materialistic individuals	Between Groups	98,964	3	32,988	46,002	,000
	Within Groups	72,427	101	,717		
	Total	171,390	104			
What you see in advertisements in game products or services to your immediate surroundings. I recommend affects your choice	Between Groups	48,691	3	16,230	27,186	,000
	Within Groups	60,299	101	,597		
	Total	108,990	104			
Advertisements in games expose you to the words	Between Groups	30,432	3	10,144	12,035	,000

in the advertisement. purchase the product or service in question leads to buy	Within Groups	85,130	101	,843		
	Total	115,562	104			
Ads in games are the ones you buy a product or service	Between Groups	,093	3	,031	,057	,982
	Within Groups	54,898	101	,544		
	Total	54,990	104			

When participants were asked for their opinions on statements such as “Advertisements and products in games contain valuable information” and “Individuals are affected by advertisements in games, leading them to buy more products or services than they need,” the results of an ANOVA test showed no significant difference between groups based on their education levels. The p-value for this analysis was 0.083, which is greater than the conventional threshold of 0.05, indicating that there is no statistically significant difference between the groups. This suggests that education level does not significantly affect perceptions regarding the value or influence of advertisements in games.

However, when examining statements such as “Watching ads in games is generally fun and enjoyable,” “Advertisements in games are more entertaining than those in other media (television, newspaper, radio, outdoor),” and “Advertisements in games contain surprising or unexpected elements,” a separate ANOVA test revealed a p-value of 0.000. This value indicates a highly significant difference between groups based on the education variable, implying that participants’ education levels play a crucial role in shaping their perceptions of these aspects of in-game advertisements.

The participants were also asked to consider whether advertisements in games influence purchasing behaviors or encourage individuals to purchase products simply for the sake of showing off. The results highlighted significant gender-based differences. For the statement “Advertisements in games lead individuals to buy products that exceed their budgets just for the sake of showing off,” the mean response for women was $X = 3.6200$, compared to $X = 2.8364$ for men. This finding confirms H6, suggesting that women are more likely than men to perceive in-game advertisements as encouraging purchases beyond their budgets.

In conclusion, while education levels did not significantly influence participants’ perceptions of the value or influence of in-game advertisements in some aspects ($p = 0.083$), they did significantly affect perceptions of the entertainment and surprise elements of these advertisements ($p = 0.000$). Additionally, gender differences were evident, with women being more affected by advertisements that encourage overspending for social display purposes.

Table 8. Tukey HSD a, b

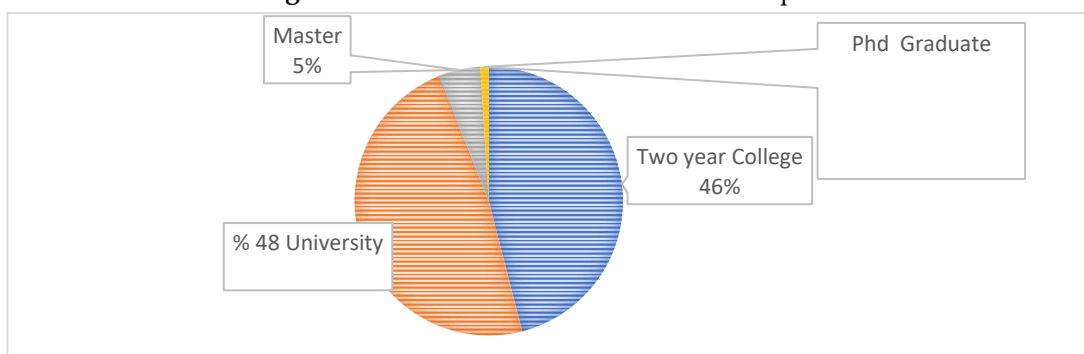
Education Level	N	Subset for alpha = 0.05	
		1	2
University	48	1,9818	
Highschool	46	2,0000	
Master	5	2,1471	
Doctoral	1		4,0000
Sig.		,968	1,000

When analyzing the participants according to their education levels, it was observed that the distribution of university, master's, and doctoral students was not homogeneous. To address this, a Tukey test was conducted to compare the averages between multiple groups. The Tukey test is a statistical method used to identify significant differences in group means when more than two groups are involved.

In this study, the p-value resulting from the Tukey test was 0.968, which is much greater than the threshold of 0.05. This indicates that there is no statistically significant difference between the groups based on their education levels. In other words, education level did not lead to notable differences in responses across the groups.

The education levels of the participants were categorized as follows: university students, master's degree students, and doctoral students. Despite initial observations, the results suggest that the education variable does not significantly influence the participants' perceptions or behaviors in relation to the study's focus areas.

Figure 2. The Education Level of The Participants

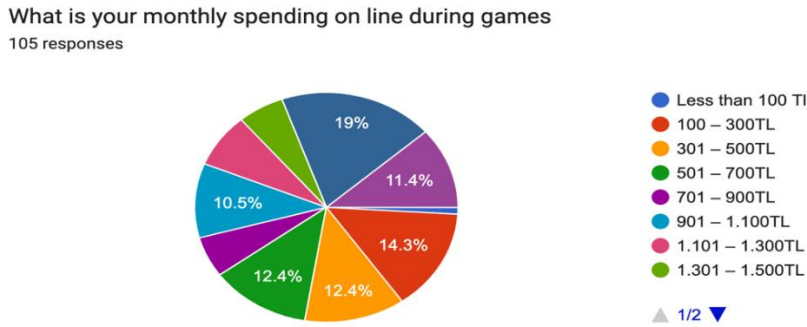


When participants were asked how much money they spend monthly on in-game purchases, the distribution of responses showed the following: 19% of participants spend 100 TL, 14.3% spend between 100-300 TL, 17.4% spend between 701-900 TL, 12.4% spend between 301-501 TL, another 12.4% spend between 501-700 TL, 10.5% spend between 900-1300 TL, and 8% spend more than 1500 TL.

These results suggest that students generally do not spend significant amounts of money on in-game purchases, which can be attributed to their limited financial means. Their socio-economic levels significantly influence their spending habits, with most

participants focusing on purchasing essential items, such as clothing, rather than spending heavily on virtual goods or game-related items. This aligns with the observation that Generation Z university students prioritize their spending based on financial constraints and necessities.

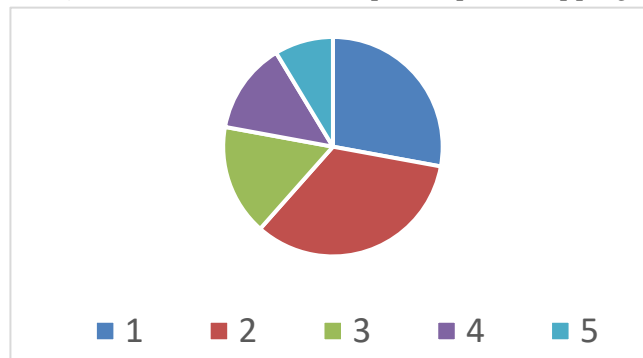
Figure 3. Monthly Spending on Games



When participants were asked how much time they spent shopping while playing games on the internet, their responses were distributed as follows: 29% spent 1-5 minutes, 35% spent 16-30 minutes, 17% spent 31-45 minutes, 14% spent 46-60 minutes, and 9% fell into the "Other" category.

The data indicates that the majority of participants, 35%, spent 16-30 minutes shopping while playing games, making it the most common duration. This suggests that Generation Z gamers dedicate a significant portion of their gaming time to engaging with in-game purchases or browsing related advertisements. It highlights the impact of in-game shopping features and their ability to capture players' attention for extended periods.

Figure 4. Duration of Participants Spent Shopping

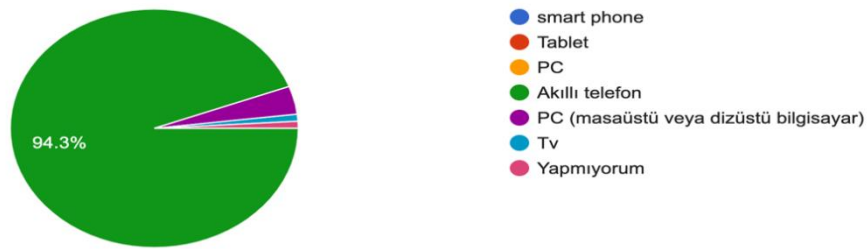


When participants were asked about the devices they use to play games, 95% reported playing games on their mobile phones, 4% on their PCs, and 1% on their tablets.

This data emphasizes the dominance of mobile phones as the primary gaming device among participants, reflecting Generation Z's preference for convenience and portability. The significantly lower percentages for PCs and tablets highlight the shifting trend toward mobile platforms in gaming.

Figure 5. Devices Participants Use to Play Games

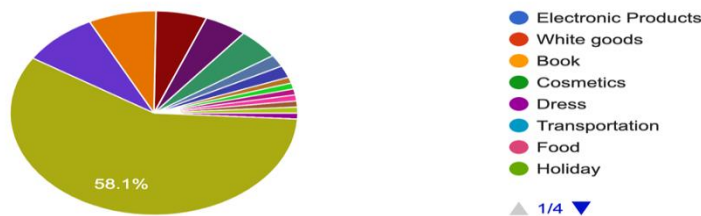
Which device do you use to shop online most?
 105 responses



When we asked the participants, "What is the product you buy most online? (Select only one option)," their responses were as follows: 58% chose clothing, 9% books, 5% electronic products, 8% white goods, 6% food, 6% cosmetics, 5% logistics, 2% in-game products, 1% hobbies, and 1% holiday tickets. It is evident that participants mostly purchase clothing items. Additionally, students living away from their families buy bus and plane tickets from advertisements that appear during online games. Overall, clothing remains the most frequently purchased item from advertisements encountered during online gaming.

Figure 6. Product Most Buy Online

What is the product you buy most online? (Select only one option.)
 105 responses



When we asked participants, "How many years have you been shopping online?" 62% of the participants stated that they had been shopping online for 1–5 years, 33% for 6–10 years, and 4% for 11 years or more.

Figure 7. Duration of Participants Have Been Doing Online Shopping

How many years have you been shopping online?
 103 responses

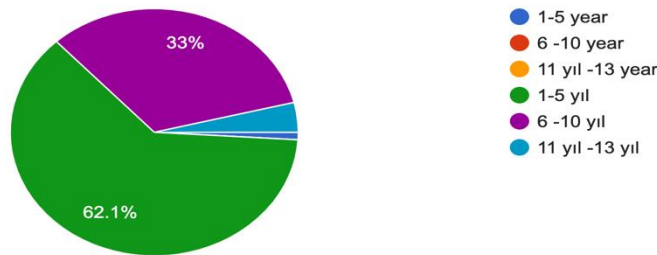
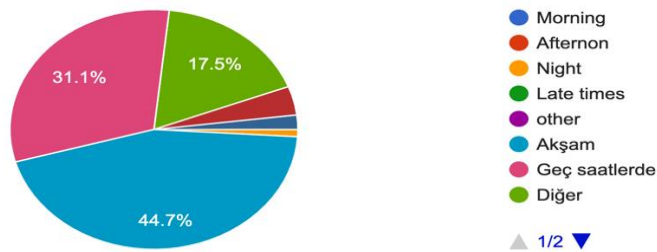


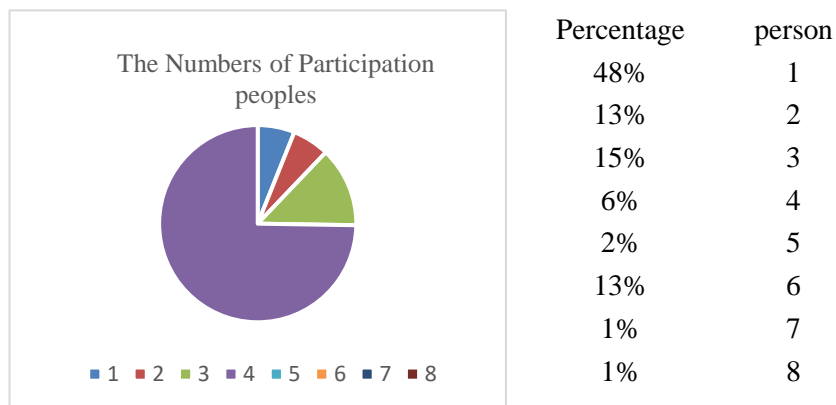
Figure 8. Time When Participants Play the Game Most Often

What time do you play games the most?
 103 responses



When we asked students, "What time do you play games the most?", 2% of the participants stated that they play games in the morning, 36% in the afternoon, 17.5% in the late afternoon, 44% in the evening, and 2% at night. Additionally, 48% of the participants prefer to play games alone, 13% prefer to play with two players, and 15% prefer to play with four players.

Figure 9. Preference of Number of People In Playing The Game



When we asked the participants, "Would you be curious about a product you saw during the game and consider testing it?", 74% of the participants answered "yes," while 27% answered "no."

Figure 10. Participants' Curiosity About Advertising Products in Games

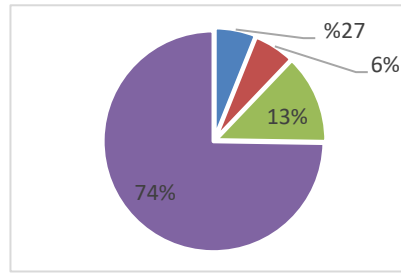
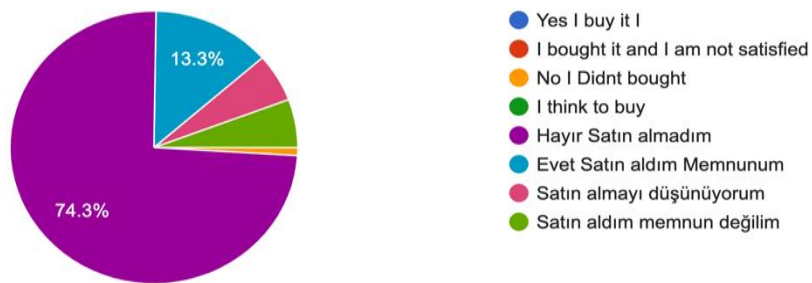


Figure 11. The Experience of Purchasing

Have you ever had the experience of purchasing a product or service after seeing it in the game?

105 responses



When we asked the participants if there should be ads in the game, 80% of them responded "yes," while 20% said "no."

Figure 12. Participants' Opinions on What Ads Should Be In The Game



When we asked the participants what the advertisements seen in the game should include, their responses were as follows:

- It should include general information (f=2).
- It should include games of chance (f=1).
- It should feature useful advertisements that raise awareness or develop skills in a particular area (f=20).

- It should give confidence (f=1), realism (f=1), and be eye-catching (f=1).
- It should appeal to all age groups (f=1) and be related to the game (f=20).
- It should include advertisements suitable for the audience the game targets, such as games for adult users (f=1).
- It should be more connected to daily life (f=1), suitable for children (f=90), and include more entertainment and educational content (f=75).
- It should not feature false advertisements (f=2).
- It should be related to the game (f=80).
- Public service announcements, based on age groups, fulfill the function of game advertisements positively (f=90).
- It should comply with competition laws (f=1).
- Advertisements should promote niche products, be educational (f=70), and focus on social responsibility (f=100).
- Ads should promote nature and animal protection (f=70) and include food and clothing pages (f=40).
- Visual and informational content should be included (f=47).
- There should be dating programs, socialization opportunities (f=45), and more useful features (f=50).
- Games should aim to protect nature and animals, avoid harmful advertisements (f=79), and include social and friendship programs (f=70).
- Educational advertisements should guide and include facts (f=98).

According to the research results, Hypothesis H3—that advertisements in games should include social responsibility—has been confirmed. Generation Z, being a socially aware generation, desires advertisements with social content. This aligns with their sensitivities toward societal issues. Therefore, they demand advertisements in games to reflect social responsibility.

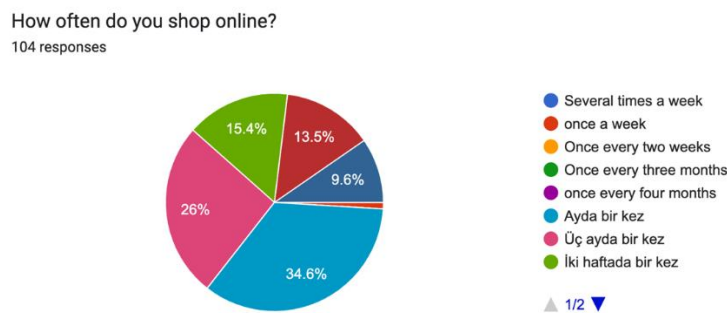
When asked "How often do you shop while playing games?", 35% of participants answered "a few times," 2% said "once a week," 15.5% responded "once a week," 14% said "a few times a week," and 19% answered "once a week." This suggests that while a substantial portion of participants shops occasionally during games, the frequency varies.

In conclusion, advertisements that fail to reach the target audience or are not tailored to their preferences cannot create the desired effect (Hanssens, 2010; Flückiger C, 2009). Advertisers need to understand the cultural and entertainment preferences of their target generation. For instance, advertisements that are designed in line with the entertainment

culture can have a greater impact. With the rise of multimedia and digital game productions, more engaging and tailored advertisements are important for attracting and maintaining consumer interest. In particular, "entertainment advertisements" (Russell, 2007) do not merely serve as promotional tools but also function as a form of public relations (Tuncer & Tuncer, 2016). Digital advertisements, such as banner ads, online games, and email marketing, provide access to specific target audiences, making programmatic advertising (Peterson & Kantrowitz, 2015) a key strategy.

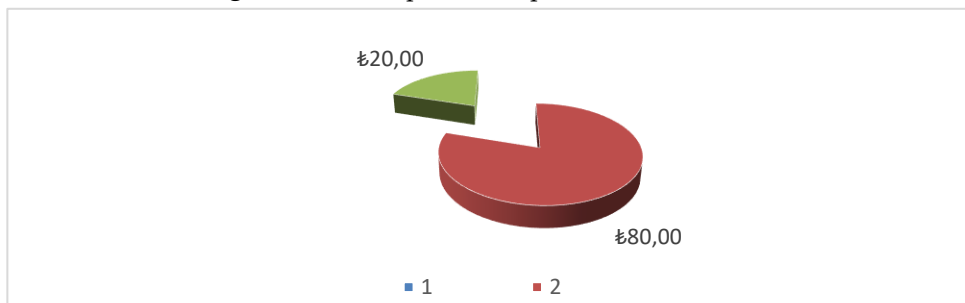
In Turkey, where a large portion of the population is Muslim, Generation Z's preference for educational games and advertisements with social responsibility content presents an opportunity for businesses to invest in game and advertisement designs that align with cultural values. This approach could be a profitable venture for investors.).

Figure 13. Frequency of Participants in Online Shopping



56% of participants find the games fun. When we asked, "Which site do you play games on the most?", participants mentioned the following platforms: EA SPORT, Bigpoint, Pubg-101, Pes, App Store (both paid and free games), 101 Plus, Game Monster, Fifa, X, BBGI Mobile, and Steam Games. Additionally, 55 participants reported they do not have a specific site, and instead, they download games directly to their phones from the Apple Store. Steam.com was mentioned by 95 participants.

Figure 14. Participant Perceptions of Paid Games



Participants stated that they did not find paid games fun, with 80% of them expressing this opinion.

Conclusion

In international trade, the purchasing habits of generations are crucial for sellers. Advertisements that appear during games significantly influence purchasing behavior. Consumers often comment on products or services they purchase through verbal communication and social media, and by providing interaction, they attract more consumers' attention to a product. The purchasing trends of young generations are important for Islamic investors. Today, games created by Western software developers are primarily aimed at Western culture and purchasing habits. For Islamic communities, it is important to develop games suited to their own culture and the advertising content used within these games. This is because, according to Islamic belief, waste is forbidden. Since both time and money can be wasted, it is encouraged in the Quran and Sunnah that young people make good use of their time and engage in productive activities.

For this reason, software developers and marketers have significant responsibilities to create games, which serve as investment tools, in accordance with Islamic culture, and to develop them as Islamic investment tools. Investors should focus on creating peaceful, humane, and moral games and advertisements, instead of promoting racist, violent games that foster consumption habits. To achieve this, it is essential to ensure that games and advertisements do not feature defective goods or exploitative practices, that they comply with legal standards, respect human rights, and do not promote one community as superior to others. Collaboration with universities is also important in order to develop Islamic investments in the gaming and advertising sectors.

In Turkey, according to TÜİK data, Generation Z constitutes 39 percent of the population. In this high-potential market, Generation Z's spending is increasing. These expenditures vary according to gender, income, and education level.

When examining the question "Do advertisements in games affect your choice about a product or service you purchase?" based on the gender variable, a significant difference was found between women and men. Women are more influenced by the advertisements they encounter during games, and their purchasing decisions are more affected by these advertisements. In other words, this result shows that there is no significant difference between men and women regarding the statement "Do ads in games influence your purchase decision?". Specifically, women tend to buy more products or services due to the advertisements. The average response for women is higher than for men when it comes to the statement "Advertisements in games are generally fun or enjoyable to watch."

When we asked the participants, "How often do you shop while playing games?", 35% answered "several times," 2% said "once a week," 15.5% said "once a week," 14% responded "a few times a week," and 19% said "once a week." Advertisements that do not reach the target audience or are not tailored to their preferences are unlikely to create the desired effect (Hanssens, 2010; Flückiger, 2009). Advertisers influence the audience by revealing their

potential and earning revenue. Advertising strategies must analyze the entertainment culture of the society in order to understand how advertising messages interact with consumers. No society is homogeneous; hence, advertisers must have a clear understanding of which generation they are targeting.

With the rise of multimedia productions, more colorful and attractive advertisements that appeal to the tastes of the target audience have become an important factor in capturing attention. Advertisements offer significant advantages in establishing emotional connections between the product and the target audience. When entertainment and advertisements combine, product promotion becomes more effective and memorable. In this category, advertisements sometimes aim to influence the target audience by integrating themselves into entertainment products, such as digital games, viral applications, ambient ads, flash mobs, cinema, entertainment programs, or competitions. In some cases, they produce the entertainment product themselves. Another significant issue is the emergence of a new category of advertisements called "entertainment advertisements" (Russell, 2007, pp. 3-4), which not only serve as advertisements but also as a public relations tool (Tuncer & Tuncer, 2016).

Internet advertisements now include new formats, such as banner ads, online games, digital integrations, search engine ads, and email ads. The unique advantage of these digital advertisements is their ability to reach a specific target audience, often referred to as programmatic advertising (Peterson & Kantrowitz, 2015). The purchasing behavior of Generation Z is vital in international trade and plays a key role in marketers' supply chains. The websites they visit, their shopping frequency, the amount of money spent, their preferred shopping platforms (mobile phones, tablets, PCs), and more, are all tracked with artificial intelligence. This data is considered a commercial commodity. It is crucial for sector representatives to protect personal data, manage this information securely, and deliver it to manufacturers in a safe manner.

The findings from this research, aimed at developing this information which is the backbone of international trade, reveal the distinctive features of Generation Z while playing games. It has been determined that women are more influenced by advertisements during games compared to men and that they exhibit purchasing behavior. Furthermore, Generation Z tends to shop from advertisements during games, primarily using mobile phones.

Recommendations

The purchasing behavior of Generation Z, which constitutes a significant portion of the global population, varies according to cultural differences, as well as regional and economic changes. Although the purchasing behavior of Generation Z, shaped by the culture of each country, differs from one another, common trends can also be observed. What this large population buys, when, and why is crucial for all stakeholders in the supply chain.

Generation Z, which learns languages, makes new friends, and tries to socialize through social media channels, prefers educational and entertaining advertisements that address social issues while playing games. This preference for educational advertisements provides important insights for software developers like Google Ads, which collects customer data and sells it to sellers. Sellers can then use this data to determine what to sell, when, and where.

For this reason, it is essential to conduct research on the purchasing behavior of these generations, which are influenced by social events that change with the seasons and technological shifts. This information should be monitored by stakeholders through collaboration with software developers.

Games developed with artificial intelligence (AI) technology can enhance the quality of advertisements. However, it is important to protect personal data, ensure security in the digital environment, and strengthen digital security measures. Since Generation Z spends considerable time in the digital world, which can negatively impact their psychological health and promote passive lifestyles, it is crucial that games are stimulating for this generation. Furthermore, digital security measures should be implemented, and advertisements in such games should educate while entertaining. Niche products should be incorporated, social benefit groups should be formed, and individuals who pose a security risk should be prevented from opening accounts.

In the Quran, several verses address the importance of avoiding wasteful activities:

- Surah Al-Inshirah, verse 7: "So, when you are idle, continue to tire (in prayer and worship) without ceasing."
- Surah Al-Mu'minun, verse 3: "They are the ones who turn away from things that are utterly vain."
- Surah Al-Furqan, verse 72: "Those who do not bear false witness, and when they encounter vain talk, they pass with honor."
- Surah Al-Qasas, verse 55: "When they hear vain talk, they turn away from it and say, 'Ours is what we have done, and yours is what you have done. Peace be upon you, we do not accept the ignorant.'"
- Surah Al-Baqarah, verse 112: "No, whoever submits himself to Allah, and does good, his reward is with his Lord. There is no fear in them, nor will they grieve."
- Surah Al-Baqarah, verse 113: "The Jews say, 'The Christians are not on any basis'; and the Christians say, 'The Jews are not on any basis.' Yet they read the Book, and those who do not know say the like of what they say. So, Allah will judge between them on the Day of Resurrection regarding what they differed about."
- Surah Al-Baqarah, verse 114: "And who is more unjust than he who prevents the mention of Allah's mosques and strives to destroy them? Theirs is nothing but fear. And for them is humiliation in this world and a great punishment in the Hereafter."

- Surah Al-Baqarah, verse 115: "To Allah belongs the East and the West. And wherever you turn, there is the Face of Allah. Indeed, Allah is All-Encompassing and All-Knowing."
- Surah Anbiya, verse 16: "We did not create the heaven and the earth and what is between them for a game and diversion."
- Surah Anbiya, verse 17: "If We had intended to take a game and diversion, We would have taken it from Ourselves. If We had done so, we would have done so."
- Surah Ankabut, verse 64: "While this worldly life (which they accept as the only truth) is in reality only a game and entertainment; when it comes to the abode of the Hereafter, that is the real-life; if only they knew!"

Electronic commerce, digital marketing, games, and advertisements in games, which are used as commercial tools today, can be beneficial to the extent that they meet people's basic needs. However, rather than wasting time, these tools should focus on content that includes useful information, avoids violence, and teaches young people the principles of Islam. Computer games should not contain sexual content, violence, or promote bad habits. Games that contradict religious beliefs may not be acceptable. However, educational, entertaining, or morally grounded games without excessive elements may be considered appropriate.

Playing games should not be excessive, should not interfere with time management and worship, and should not resemble gambling or betting games. If digital games are designed for betting and earning money, such games are generally considered haram (forbidden). Gambling is prohibited in the Quran because it can cause hostility and hatred, waste resources, ruin finances, and put people in difficult situations. If digital games lead to the waste of time, young people should be discouraged from playing these games, as they could hinder their productive activities.

This research was conducted on Muslim youth, all of whom are Muslim. Influenced by social media channels, young people are moving away from the guidance of Islamic teachings and are engaging in harmful online behaviors such as compulsive internet use, online betting, gambling, stock market activities, online auctions (e.g., eBay), and online shopping addiction. These habits cause financial difficulties, disrupt professional and family lives, and lead to behavioral changes, particularly among those prone to addiction.

Considering the moral and ethical dimensions of digital commerce, Islamic commerce sites should be established, offering educational content. Time and member logins should be monitored, the trade aspect should be emphasized, and young people should be supervised to ensure participation in healthy communities. Suspicious users who abuse the rules should be prevented from accessing such sites.

References

- AdColony 2024. "Gen Z Effects in Today's Digital World 2020".
<https://www.adcolony.com/blog/2020/08/18/gen-z-effects-in-todays-digital-world/>, 3.

- Adıgüzel, O. B. 2014. "Kuşakların değişen yüzü ve y kuşağı ile ortaya çıkan yeni çalışma tarzı: Mobil yakalılar". Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 19, 165-182.
- Alp, F. 2021. "z kuşağının sosyal medya kullanım alışkanlıklarının aile içi iletişime etkisi". Sakarya Üniversitesi Sosyal Bilimler Enstitüsü: Sakarya Üniversitesi İletişim Fakültesi Örneği Yüksek Lisans Tezi
- Agheorghiesei, D. T. 2013. "Psychology of generation y and the attitude towards the drugs users at workplace". The Need for Ethics Education. Procedia-Social and Behavioral Sciences, 84, 171-176.
- Aksu, Ç. 2018. "Kuşaklar açısından motivasyon araçlarının karşılaştırılması kariyer çapalarının karşılaştırılması ve bir araştırma, Yayınlanmamış Yüksek Lisans Tezi". İstanbul Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
- Altında, D. E. 2024. <https://www.moment-expo.com/tr-tr/162/icerikler/kapak/dunyanin-enguclu-nufusu-z-kusagi-mercek-altinda-x239>.
- Altuntuğ, N. 2012. "Kuşaktan kuşağa tüketim olgusu ve geleceğin tüketici profili". Organizasyon ve Yönetim Bilimleri Dergisi (4(1)), 203-212.
- Aydın, Ç., & Başol, O. 2014. "X ve y kuşağı: çalışmanın anlamında bir değişme var mı?". *Ejovoc (Electronic Journal of Vocational Colleges)*, <https://doi.org/10.17339/ejovoc.41369> <https://doi.org/10.17339/ejovoc.41369>, 4(4), 1-15.
- Ayhün, S. E. 2013. "Kuşaklar arasındaki farklılıklar ve örgütsel yansımaları". Ekonomi ve Yönetim Araştırmaları Dergisi, 2(1), 93-112.
- Bali, V. 2024. "Gaming Market Report 2024 (Global Edition) Gaming Market will be USD 251269.0 Million in 2024 and will expand at a compound annual growth rate (CAGR) of 9.60% from 2024 to 2031". ID: CMR355711
- Bayrakdaroğlu, F, & Özbek, Ç. 2018. "Kadınların tüketim alışkanlıklarının kuşaklararası boyutu". *Sosyal ve Beşeri Bilimler Araştırmaları Dergisi Kadın Çalışmaları Özel Sayısı*,(19(42), 1-12.
- Dakduk, S., Santalla-Banderalli, Z.& Siqueira, J. 2020. "Acceptance of mobile commerce in low-income consumers: Evidence from an emerging economy". *Heliyon*, 5, 1–15.
- Dana, K. 2005. "Managing your multigenerational workforce". *Strategic Finance*, 87 (6), 52-55.
- Flückiger C, C. F. 2009. "Working with patients' strengths: a microprocess approach". *Psychother Res*. Mar;19(2):213-23.
- Gürbüz, S. 2015. "Kuşak farklılıkları: mit mi, gerçek mi". *İş ve İnsan Dergisi*(2 (1)), 39-57.
- Gaming Market Report 2024 (Global Edition). 2024. https://www.cognitivemarketresearch.com/gaming-market-report?campaign_name=new_rd_reports_rsa&gad_source=1&gclid=Cj0KCQjwvb-zBhCmARIsAAfUI2v3vCBfKwbnsjyTBCO6TI_KvxWdE-p3KwTYdeIwv-TzOQgNjx_wc4aAoFwEALw_wcB.
- Hanssens., J. A. 2010. "The direct and indirect effects of advertising spending on firm value".

Journal of Marketing, 74, 20-33.

- Haryani, S., & Motwani, B. 2015. "Discriminant model for online viral marketing influencing consumers behavioural intention". *Pac. Sci. Rev. B Humanit. Soc. Sci.*, 49–56.
- Hatice, K. 2011. "Y Kuşağı Çalışanlarının motivasyon profillerinin belirlenmesine yönelik bir araştırma". *Organizasyon ve Yönetim Bilimleri Dergisi* (3 (2) 129-139.
- Impact on the Gaming Market the Big Picture. 2021.
- Index G. W. 2024. The You the Nations: Global Trends Among Gen Z. 2019. <https://www.globalwebindex.com/reports/global-trends-among-gen-z>.
- Intelligence, M. 2023. Gaming Industry Size & Share Analysis - Growth Trends & Forecasts (2024 - 2029) https://www.mordorintelligence.com/industry-reports/global-gaming-market?network=g&source_campaign=&utm_source=google&utm_medium=cpc&matc htype=b&device=c&gad_source=1&. https://www.mordorintelligence.com/industry-reports/global-gaming-market?network=g&source_campaign=&utm_source=google&utm_medium=cpc&matc htype=b&device=c&gad_source=1&gclid=CjwKCAjw_Na1BhAlEiwAM-dm7GrXgsCJ7BVG-cHazOgK13nEzCAM3gIBJYa2NxEu9wPzNT11VzWlqhoC0W.
- Kavalcı, K. Ü. 2016. "Y ve z kuşaklarının öğrenme stilleri ve tüketici karar verme tarzları açısından karşılaştırılması". *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*(20 (3)), 1033-1050
- .Kırık, A. M., & Köyüstü, S. 2018. "Z Kuşağı Konusunda Yapılmış Tezlerin İçerik Analiz Yöntemi ile İncelenmesi". *Gümüşhane Üniversitesi İletişim Fakültesi*, 6(2).
- Klímová, P. &. 2019. "Mobile technology and generation Z in the english language classroom – a preliminary study". *Educ. Sci.*, 9 (3) 203, 10.3390/educsci9030203. 203.
- Knezovic, A. 2024. "Gen Alpha and Gen Z Gamers: How They Engage with Games" <https://www.blog.udonis.co/mobile-marketing/mobile-games/gen-alpha-gen-z-gamers#h2-2>.
- Levickaite, R. 2010. "Generations x, y, z: how social networks form the concept of the world without borders (the case of Lithuania)". *Limes Cultural Regionalistics* 3(2):170-183 DOI: 10.3846/limes.2010.17 LicenseCC BY 4.0 Rasa Levickaiteprint/Issn 2029-0209 online, 3(2), ISSN 2029-0187.
- Levonius, D. 2015. "General differences in the classroom". Associate for Talent Development. <https://www.td.org/content/newsletter/generational-differences-in-the-classroom>
- Mannheim, K. 1950. "Freedom, power, and democratic planning". New York: Oxford University Press.
- Mishra, R. K., & Shulgana, S. 2012. "Today's HR for a Sustainable Tomorrow", (Editör), Ipsita C. Patranabis,. *The Future of Workforce Management: Perspectives and Way Ahead*, New Delhi.
- Murphy, S. A. 2007. "Leading a multigenerational workforce". AARP.
- Mutte, J. 2004. "Managing Workers of the Next Decade". *Expatica HR* [online] Retrieved from: <http://www.expatica.com/hr/story/managing-workers-of-thenext-decade>

- 11866.html?ppager=1.
- Önder, N. 2020. "Oyun endüstrisinin 50 yıllık yolculuğu". *Marketing Türkiye* <https://www.marketingturkiye.com.tr/haberler/oyun-endustrisinin-50-yillik-yolculugu/>.
- Öz, Ü. 2015. "XYZ Kuşaklarının Özellikleri ve Y Kuşağının Örgütsel Bağlılık Düzeyi Analizi. Yayımlanmamış Yüksek Lisans Tezi" Atılım Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.
- Ozkan, M. 2015. "Economics and management, wcbem the changing face of the employees-generation z and their perceptions of work (a study applied to university students)". *ScienceDirect* www.sciencedirect.com 4th World Conference on Business, .
- Perju-Mitran, A., Negricea, C., & Edu, T. 2014. "Modelling the Influence of online marketing communication on behavioural intentions". *Netw. Intell. Stud.*, 2, 245–253.
- Peterson, T., & Kantrowitz, A. 2015. "The CMO's Guide to Programmatic Buying: Nine Things Every Advertiser Should Know". <http://adage.com>.
- Report, G. M. 2024. https://www.cognitivemarketresearch.com/gaming-market-report?campaign_source=google_ads&campaign_name=new_rd_reports_rsa&gad_source=1&gclid=CjwKCAjwps-zBhAiEiwALwsVYdwrAJZcxg71nybhiHITAjXHNtjXp0Pp6h0nNEpkVHba-aBhbNJo6xoCzbcQAvD_BwE.
- Russell, C. A. 2007. "Advertainment: fusing advertising and entertainment". http://www.bus.umich.edu/facultyresearch/researchcenters/centers/yaffe/downloads/Advertainment_teaching_materials.pdf.
- Sezgin, F. S. 2018. "Örgüt kültürü ve iklimi çalışmalarının sistematik incelemesi: bir içerik analizi". *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 19(1), 257-275. <https://doi.org/10.17679/inuefd.330928>.
- Shafaly S., E., & Priyadharshni, R. 2021. "Learning styles, preferences and needs of generation Z" healthcare students: Scoping review. *Nurse Education in Practice*, <https://doi.org/10.1016/j.nepr.2021.103247>, 57.
- Somyürek, S. 2014. Öğretim sürecinde z kuşağının dikkatini çekme: artırılmış gerçeklik, 4 (1), s. 63- 80. *Eğitim Teknolojisi Kuram ve Uygulama*, 4(11).
- Taş, H. Y, Demirdöğmez, M., & Küçüköğlü, M. (2017). Geleceğimiz olan z kuşağının çalışma hayatına muhtemel etkileri. *OPUS, Uluslararası Toplum Araştırmaları Dergisi*, 7(13), 1031-1048.
- Tekin, M. 2015. Çalışma yaşamında kuşaklar ve işe yönelik tutumlarının İncelenmesi. Yayımlanmamış yüksek lisans tezi, Süleyman Üniversitesi Sosyal Bilimler Enstitüsü, Isparta.
- Trampe, D. V. 2009. "The Self-Activation Effect of Advertisements: Ads Can Affect Whether and How Consumers Think About the Self". *Advances in Consumer Research*. . 36.
- Tuncer, A. İ., & Tuncer, U. 2016. "Entertainment Industry Viral Applications of Entertainment Advertisements and Their Effects on Z Generation". *TRT Akademi*, 1 (11).

- Yüksekbilgili, Z. 2013. "Türk tipi y kuşağı". *Elektronik Sosyal Bilimler Dergisi*, 12(45), , 342-353.
- Zhang, J., & Mao, E. 2016. "From online motivations to ad clicks and to behavioral intentions: An empirical study of consumer response to social media advertising". *Psychol. Mark*, 33, 155–164.