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Motivators Affecting Pokemon Go Players' In-Game Purchase Intentions Using Microtransactions[1]

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Abstract

In the last decade, gaming industry started seeing a rapid transformation from one-time charge and subscription based revenue models to freemium games with microtransactions. However, overwhelming the player base with microtransactions can lead to player frustration and resistance against the transactions, other players, and developers. Understanding the motivations behind gamers' purchases of virtual goods is crucial for game developers to tailor their offerings and increase sales, thus ensuring business sustainability. This exploratory study aims to understand the motivators influencing Pokemon GO players' in-game purchase intentions using microtransactions. Semi-structured interviews were conducted with 28 Pokemon GO players attending the Pokemon GO Community Day event in Izmir, Türkiye. The gathered data was analyzed using deductive content analysis. The results revealed that while many motivations are similar to other games, Pokemon GO's unique gameplay style introduced new motivations such as game/design purpose misalignment, physical access, scarcity, enjoyment expectancy, and spatial proximity/distant access. Additionally, the components of consumption value theory were found significant role player in in-game purchase decisions. Fear of Missing Out (FOMO) was also identified as a significant factor, with many players making purchases to avoid missing out on experiences, events, or exclusive Pokemon. This research is the first to explore the motivations of an augmented reality game's player base regarding microtransactions, offering new insights into player behavior and purchase intentions.

Keywords: *Microtransactions, Gaming industry, In-game purchase motivations, Pokemon GO, Consumption Value Theory*
JEL Classification Codes: *M31, C73, M10*

1 This study is derived from Burak Çetiner›s master's thesis entitled "Determining the factors affecting pokemon go players' in-game purchase intentions using microtransactions", conducted at Yaşar University under the supervision of Assoc. Prof. Aylin Çalışkan.

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Pokemon Go Oyuncularının Mikroişlemleri Kullanarak Oyun İçi Satın Alma Niyetlerini Etkileyen Motivasyonları[4] [5]

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Öz

Son on yılda, oyun endüstrisi tek seferlik ücret ve abonelik tabanlı gelir modellerinden mikroişlemlere sahip freemium oyunlara doğru bir dönüşüme uğramıştır. Ancak, oyun tabanını mikroişlemlerle boğmak, oyuncuların hayal kırıklığına uğramasına, işlemlere, diğer oyuncalara ve hatta oyun geliştiricilerine karşı direnç göstermesine sebep olabilme potansiyeline sahiptir. Oyuncuların sanal ürün satın almalarının ardındaki motivasyonları anlamak, oyun geliştiricilerinin tekliflerini kişiselleştirmeleri ve satışları artırarak iş sürdürülebilirliğini sağlamaları için çok önemlidir. Bu keşifsel çalışma, mikroişlemleri kullanarak Pokemon GO oyuncularının oyun içi satın alma niyetlerini etkileyen motivasyonları anlamayı amaçlamaktadır. Amaca yönelik olarak İzmir, Türkiye'de Pokemon GO Topluluk Günü etkinliğine katılan 28 Pokemon GO oyuncusu ile yarı yapılandırılmış görüşmeler yapılmıştır. Toplanan veriler, tümdengelimli içerik analizi yöntemiyle analiz edilmiştir. Sonuçlar, birçok motivasyonun diğer oyunlarlaa benzer olmasına rağmen, Pokemon GO'nun benzersiz oyun tarzının oyun/tasarım amacı uyumsuzluğu, fiziksel erişim, kıtlık, keyif beklentisi ve mekansal yakınlık/uzak erişim gibi yeni motivasyonlar ortaya çıkardığını ortaya koymuştur. Ek olarak, tüketim değeri teorisinin bileşenlerinin oyun içi satın alma kararlarında önemli bir rol oynadığı bulunmuştur. Kaçırma Korkusu (FOMO) da önemli bir faktör olarak tanımlanmış ve birçok oyuncunun deneyimleri, etkinlikleri veya özel Pokemon'ları kaçırmamak için satın almalar yaptığı ortaya konmuştur. Bu araştırma, artırılmış gerçeklik oyununun oyuncu tabanının mikroişlemlerle ilgili motivasyonlarını inceleyen ilk araştırma olup, oyuncu davranışı ve satın alma niyetleri hakkında yeni içgörüler sunmaktadır.

Anahtar Kelimeler: *Mikroişlemler, Oyun endüstrisi, Oyun içi satın alma motivasyonları, Pokemon GO, Tüketim Değer Teorisi*
JEL Kodu: *M31, C73, M10*

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Introduction

Since their initial emergence in early 1950s, rapidly advancing technology enabled continuous evolution of video games as well as gaming platforms. Glorious days of arcades and simplistic 8-bit handheld consoles are over as more complex gaming platforms such as PCs, PlayStation, Xbox, etc. replaced them. Traditional gaming platforms set the foundation for immersive gaming experiences, offering high-quality graphics, complex gameplay mechanics, and expansive storylines. These platforms allowed for the development of rich, interactive worlds that engaged players for extended periods, contributing to the growth of a dedicated gaming community. However, their limited accessibility due to high costs and technical requirements left a gap that mobile gaming later filled, making gaming more inclusive and widespread. However, mobile games rise to popularity starting in early 2010s is what truly changed today's gaming industry (Caetano, 2017). Mobile devices such as smart phones and tablets are the most accessible devices for gaming compared to the other alternatives as a large portion of world population owns at least one. As a result of this accessibility, in the last decade, majority of the video games were developed for these mobile devices while the revenue generated by them amounts to 50% of total revenue generated by gaming industry (Clement, 2022a). However, the main reason behind gaming industry's transformations is not the mobile games but rather the "freemium" business model implemented by mobile game developers. Freemium term was initially introduced by scholars (Gainsbury et al., 2016) to explain the business model in which a company does not charge the users for a product or service they released but instead uses microtransactions to generate revenue. The introduction of the freemium model marked a transformative shift in the gaming industry, fundamentally changing how revenue is generated. Unlike traditional models, where games were purchased upfront or through subscriptions, the freemium model allows players to access the game for free, while offering in-game purchases as a revenue stream. This approach not only democratized access to games but also created a continuous revenue flow, making it more lucrative than the one-time payment models of the past. The success of this business model eventually ended up affecting gaming industry, sparking a debate on the future of video gaming.

As these freemium mobile games generate more revenue in comparison to traditional subscription or one-time charge based games, it is crucial to understand what motivates players to spend real money in a game in which they do not need to make any purchases at all to play. Pokemon GO is one of these high revenues generating mobile games peaking at $915 mil revenue in 2020 with over 500 mil downloads and 71 mil monthly active users (Iqbal, 2022). However, Pokemon GO introduces a unique gameplay which utilizes augmented reality to enable their players go on adventures in real world locations and catch Pokemon.

Microtransactions are widely addressed in the literature in the form of legal, ethical, and psychological issues surrounding them (McCaffrey, 2019; King et al., 2019; Derrington et al., 2021), and player's perspective on microtransactions (Caetano, 2017; Diaczok and Troiner, 2019; Adji et al., 2019; King et al., 2020; Farrell, 2021) there are rarely any studies focusing on player motivations for making in-game purchases in free-to-play games or making the connection between marketing theories and gamers' purchase motivations. Therefore, this study aims to contribute to the literature on microtransactions by partially filling the gap regarding player motivations for making in-game purchases. Firstly, in order to partially fill the gap regarding player motivations, a detailed literature review was conducted on the topic of microtransactions with the purpose of identifying player motivations for making in-game purchases. Secondly, the motivations existing in literature were then categorized based on their context to make it easier to understand them and later make comparisons Pokemon GO players' in-game purchase motivations. This comparison is expected to help in understanding if Pokemon GO's unique gameplay style actually brings with its different purchase motivations which is not normally valid for players playing more traditional games and reveal whether different game genres and gameplay styles affect the player motivations. This comparison will provide a deeper understanding of how gameplay styles influence consumer behavior, which can inform future game development and marketing strategies. In the light of Consumption Value Theory, the study will attempt to

explain the reasons driving Pokemon GO players to make in-game purchases but also offers practical insights for game developers and marketers looking to tailor in-game purchase strategies effectively. By bridging the gap between existing literature and new findings specific to Pokémon GO, this research contributes meaningfully to both academic discourse and industry practices, guiding future developments in the rapidly evolving landscape of mobile gaming.

Literature Review

Microtransactions

Evolution of video games over the years and their digitalization made the implementation of microtransactions possible. The term microtransactions is often used to define low cost purchases that are usually made in-game through in game stores and other mediums. While these virtual goods can offer some functional properties, they are often times purely cosmetic. Microtransactions can be found under three distinct categories in the literature (Neely, 2021; Zendle and Caims, 2020); microtransactions involving random outcome loot boxes, cosmetic items, and "Pay-to-Win" items which provide competitive advantage after purchasing. Games that implement microtransactions use loss aversion techniques most of the time to motivate players to make in-game purchases (Duverge, 2016). In today's gaming industry, almost all free-to-play games and some of the one-time charge such as FIFA, which generations around a billion dollars every year through microtransactions (Barkman and Mattsson, 2019), or subscription based games such as World of Warcraft include microtransactions. However, mobile games collectively generate the highest amount gaming revenue across all gaming platforms with $92.2 billion in 2022, almost doubling their closest competitors, the gaming consoles, which only generated $51.8 in 2022 (Clement, 2022b).

Legal, Ethical, and Psychological Issues Regarding Microtransactions

Introduction of microtransactions into gaming industry and video games started a debate as gamers started voicing their concerns regarding game developers' choices on gaming forums and other similar platforms (McCaffrey, 2019). These concerns were mostly focused on the fact that the developers' were charging them additionally in a game which they have already paid a certain amount money to obtain.Scholars later joined the discussion by emphasizing the legal, ethical, and psychological issues that microtransactions could create. Random outcome loot boxes are the primary drivers of concern for many as they are often associated with problem gambling (Zendle and Caims, 2018; Castillo, 2019; Latvala, 2019; Kleinmann and Das, 2020) as well as gaming disorder (Jarrad, 2021; King et al., 2020). There are also studies (Tomić, 2018; Derrington et al., 2021; Neely, 2021) stating that microtransactions can act a first step into gambling disorder in the minor that were exposed to them. Several researchers (Deblaquiere et al., 2018; McCaffrey, 2019; Drummond et al. 2019; King et al., 2019; Derrington et al., 2021) believe that, instead of waiting for a governmental intervention, companies should behave responsibly and implement some measures into their games to prevent from overspending on these microtransactions. There are some cases where the companies failed to implement such measures by themselves and governments had to intervene to protect players from predatory microtransactions in such as Belgium and Netherlands ruling out loot boxes as a form of gambling and banning them permanently or Japan and China forcing game developers to disclose the winning odds of loot boxes.

Gamers' Perspective on Microtransactions

Gamers, as the side that is being primarily affected by microtransactions, also have their opinions on the matter. Caetano's (2017) suggests pay-to-win microtransactions are correlated with impulse buying while King et al. (2020) states that social influences such as seeing others making in-game purchases affect how

much a player spends on microtransactions. While Adji et al. (2019) believes that hardcore players are more like to make in-game purchases, Şimsek (2019) claims the exact opposite by stating that microtransactions remove a part of the positive frustration caused by in-game challenges and replace it with at-game frustration, thus, driving the hardcore players away from the game. According to Farrell (2021), players believe that in-game purchases elevate their gaming experience. Compared to other games, players play freemium games are more like to spend money on microtransactions. On the other hand, according to Diaczok and Tronier (2019) and Tomić (2018), gamers, most of the time, tend to view microtransactions in a negative manner. Qvick's (2020) findings indicate that players are evidently resistant towards any kind of microtransactions. Jarrad (2021) argues that, since PC gamers play a wider variety of games and spend more time in games, they are exposed to a greater number of microtransactions compared to mobile gamers, leaving them more susceptible to microtransactions. Petrovskaya et al. (2022) states that in comparison to other games, mobile games include a greater number and types of microtransactions leading to issues related to transparency and fairness in the playerbases as well as degraded player experience. Barkman and Mattsson's (2019) findings suggest that, with the main source of dislike stemming from pay-to-win mechanics, 80% of gamers find the idea of microtransactions in games repulsive. Evers et al. (2015) adds to this claim by stating that players engaging in microtransactions will be judged negatively by other players, especially if pay-to-win purchases made. According to Palmeira (2021) gamers view cosmetic item purchases in a more positive light, while they can still make functional item purchases due to FOMO and falling behind other player even though they still display a great dislike towards these kinds of items.

Prior Research on Players' in-game Purchase Motivations

Purchase motivation is often defined by scholars as the reasons that drive people purchase goods and services. These motivations are often divided into various categories in the literature based on their context and the categories can be listed as functional, social, emotional, economical, psychological, and other motivations. Hamari and Keronen's (2017) study serves as an overview of the literature on gamer motivations for making in-game purchases, thus, the categorization in this study borrows some terminologies and categories from that study. Gamers' in-game purchase motivations from different research areas such as marketing, psychology, game design, digital art, ethics, and law are summarized below in Table 1.

Table 1

Studies on Gamers' In-game Purchase Motivations

Author(s)[A1][A1]	**Gamers' In-game Purchase Motivations**
Gong er al. (2024)	Aesthetic design, customization, sociability, immersion, advancement motivation.
Ma and He (2024)	Coolness factor, joy, gaming experience, immersion, willingness to purchase .
Naureem and Faiz (2024)	Aesthetic design, gaming satisfaction, enjoyment, happiness, hedonic pleasure, obtaining essential components, gaining benefits and utility, effiecieny, social approval, the need to compete with friends, desire to gain status among peers.
Hussain et al. (2024)	In-game shopping-related adventure-, gratification-, role-, idea-seeking motivations, perceived shopping value.
Böffel et al. (2022)	Self-estimated performance, perceived competence, identifying with the character contribute to the appeal, having fun.
Neely (2021)	Saving time, advancing in the game, accessing extra content, and obtaining cosmetics.

Farrell (2021)	The type of microtransaction, gambling, item functionality, seasonal passes.
Jarrad (2021)	Fear of missing out, impulsivity, gaming frequency, duration of gaming sessions, gaming disorder, and the platform used for gaming.
Derrington et al. (2021)	Gambling.
Palmeira (2021)	Not falling behind other players that buy functional items.
Ferguson (2020)	Approval from peers, gameplay duration, willingness to support other players using microtransactions, perception of pay-to-win microtransactions, effort and time invested in the game.
Kleinman and Das (2020)	A strong urge to play, difficulty in reducing gaming, frequent in-game purchases, gaming disorder, high enjoyment levels, taking advantage of special offers, advancing in the game, and impulsive decisions to continue playing.
Okereke (2020)	Competitive advantage, visual upgrade.
King et al. (2020)	Friend influence, across-platform access, value/money ratio, higher in-game level, high weekly play time, gaming disorder, gambling disorder, risk taking behavior.
Qvick (2020)	Demonstrating support for developers, performance, visual aesthetics and sounds, background narrative, origin, customization options, cultural references, branding, rarity, and impulsive purchasing.
Latvala (2019)	Seamless gameplay, social interaction, competitive play, pricing, indulging children, unlocking new content, gambling-driven loot box purchases, early access to features, supporting the game/developer, and financial benefits.
Khonych (2019)	Gambling habits, microtransaction types, social pressure.
Wong (2019)	Gambling and lootboxes, gaphacon, positive emotional effects from winning items but also lead to addiction.
Barkman and Mattsson (2019)	Perceived usefulness, ease of use, temporal dissociation, focused immersion, heightened enjoyment, control, curiosity, self-expression, receiving approval, escaping pressure, thrill of gambling, elevated experience, and regret.
Golynchev (2019)	Supporting the developers, cosmetics.
King et al. (2019)	Gambling disorder, gaming disorder, addiction.
Diaczok and Tronier (2019)	Approach to buying, social engagement, self-expression, social standing, alignment with the avatar, visual prestige, fair pricing, promotional deals, cost-effectiveness, backing the creator, anticipation of effort, rarity, collectability, luxury items, enjoyment levels, expected performance, progress, unobstructed access, unlocking features, social influence, intent to use the service, perceived network scale, user-friendliness, pampering children, and habitual behavior.
Adji et al. (2019)	Genre of the game, competitiveness, willingness to pay, longer gameplay times, microtransaction types

Tomić (2018)	Making purchases outside the game, using virtual currency, the desire to buy, cosmetic items, pay-to-win mechanics, loot boxes, discounts, and package details.
Zendle and Cairns (2018).	Gaming disorder, gambling disorder.
Caetano (2017)	Flow experience, price, perceived risk, competitive advantage.
Kim et al. (2017)	Impulsivity, reward sensitivity, competitiveness, and problem gambling severity, extend play, win back lost credits.
Hamari et al. (2017)	Avoiding junk mail, striving for excellence, maintaining engagement, offering rewards, dedicating time to a hobby, pampering children, customizing experiences, enjoying time with friends, safeguarding accomplishments, achieving goals, fair pricing, preventing redundancy, impressing friends, taking part in unique events, exclusive deals, accelerating progress, endorsing quality games, and accessing additional content.
Tomić (2017)	Game genre, game monetization method, microtransaction types.
Gainsbury et al. (2016).	Avoid waiting, giving gifts to friends, increasing the level of enjoyment, decorating or personalizing the game, getting ahead of other players, special offers, impulse decision to continue play.
Artz and Kitcheos (2016)	Ego depletion, extended self, dematerialization, re-embodiment, perceived value of items, competitive environment.
Liblik and van Berlo (2016)	Advancements of character/competitive advantage, time efficiency, item cost, item value, transaction security, advancing character to join a group, conforming to group appearance, competition-based social status, displaying achievements, self-expression, excitement from acquiring new items, access to new gameplay options, urgency from limited-time offers, rarity of items, and discounts.

Cleghorn and Griffiths (2015) identify *function* as a key motivator for in-game purchases, encompassing non-visual item attributes that impact game progression. This category relates directly to character or in-game advancement and indirectly to items affecting player performance. *Social motivations,* linked to the social aspects of purchased items, are significant as well (Hamari et al., 2017). These motivations influence player relationships, group belonging, and social perceptions. *Emotional motivations,* described by Guo and Barnes (2012), arise from the enjoyment of the virtual world and involve feelings before, during, or after purchase. Hamari et al. (2017) define *economic motivations* as those driven by financial considerations like pricing and discounts. Additionally, subconscious *psychological factors* also influence purchase decisions (Barkman and Mattsson, 2019). Motivations not fitting these categories are classified as other motivations.

Motivations for gamers' in-game purchases extracted from the literature are summarized and categorized in Table 2, based on the type of benefit they offer the players.

Table 2

Categorized Gamers' In-game Purchase Motivations

Functional	**Social**	**Emotional**
Avoiding Delays	Gaining Approval from Peers	Background Fiction
Preventing Redundancy	Avoiding Spams	Branding
Character Progression	Fostering Community Connections	Cultural References
Gaining Competitive Edge	Personal Expression	Curiosity
Continuing Gameplay	Influence of Friends	Decorating or Personalizing
Additional Content	Giving Gifts to Friends	Elevated Experience
Joining Special Events	Aligning with the Avatar	Excitement of Purchasing
Sense of Competence	Pampering Children	Flow Experience
Perceived Risk	Blending in with Group Norms	Fun
Perceived Utility	Perceived Risks	Perceived enjoyability
Expected Performance	Social Pressure	Positive Feeling from Getting a Rare Item from Lootbox
Safeguarding Achievements	Social Standing	Provenance
Achieving Goals	Playing with Peers	Regret
Time Efficiency	Uniqueness	
	Receiving Endorsement	
	Showcasing Achievements	
	Impressing Friends	
	Visual Prestige	
	Readiness to Assist Others Who Invest in Microtransactions	
Economic	**Phycological**	**Other**
Collectability	Addiction	Type of Game
Discounts	Dematerialization	Game Monetization Strategy
Effort Expectancy	Purchase Desire	Duration of Gameplay
Rarity	Ego Fatigue	Frequency of Gaming
Impulsive Purchases	Escape from Stress	Gaming Platform
Investing in Hobbies	Extended Self-Concept	Taking Time to Make Purchases
Time-Limited Deals	Fear of Missing Out	Type of Microtransactions
Financial Value	Deep Engagement	Access Across Multiple Platforms
Available Content	Gaming Addiction	Sense of Control
Perceived Risk	Gambling Addiction	Ease of Use Perception
Value Perception	Habitual Behavior	Perceived Network Scope
Price-to-Value Ratio	Discomfort with Spending	Intent to Use the Service
Fair Pricing	Perceived Risk	Transaction Security
Seasonal Passes	Re-embodiment	
Supporting Quality Games/ Developers	Sensitivity to Rewards	
Luxury Items	Risk-Taking Tendencies	
	Time Disconnection	
	Excitement of Gambling	
	Virtual Currency Use	
	Recovering Lost Credits	

Theoretical Background

Consumption Value Theory (CVT)

Consumption value theory has been studied widely as a primary determinant of consumers' purchasing decision (Sheth et al., 1991). Sheth et al. (1991) proposed CVT with the aim of capturing the elements stemming from value expectations that influence the eventual purchasing decision. The theory divides consumer choice into five consumption values: functional, emotional, social, epistemic and conditional values. Functional value refers to utilities obtained after the initial purchase. These utilities include price, reliability, durability, and other functional benefits. Social value is the perceived utility of an item or product in relation to social groups and environments. Emotional value refers to feelings and emotions provoked from the purchase decision itself or the item or service obtained. Conditional value refers to the value an item or service offers in the context of a specific event or circumstance. This conditional value can take the form of other values as well. Finally, epistemic value refers to an item's or service's capacity to arouse curiosity, provide a new experience/feeling, and satisfy hunger for knowledge. According to Teng (2018), consumer behavior is a result of a combination of various values and relative importance of each value different from circumstance to circumstance.

This study contextualizes the components of consumption value theory to help explaining Pokemon GO players' purchase decisions. Teng (2018) argues that not all components of CVT are applicable to mobile game as players can make purchases through in-game stores anytime and anywhere they want and this consequently undermines the importance of value components such as conditional value.

Fear of Missing Out (FOMO)

Consumer often have multiple reasons for the purchase decisions they make, such as elevated status, attitudes of the people surrounding them, familiarity with the brand, and other personal motivations. While the reasons might differ contextually, together, they imply that consumers expect some type benefits from the experiences, items, or services they acquire (Diaconu, 2015).

Thompson (2011) describes FOMO as an uneasy feeling that reveals itself after seeing your peers engaging in an activity you'd like to engage yourself or possess something that is better than what you have. Dykman (2012) states that FOMO is a kind of emotional anxiety that stems from a desire of staying connected to peers' activities in a continuous manner. Being absent from an experience or not being able to obtain an item extolled by others leads to the feeling of "missing out". While FOMO is generally an internal tendency of individuals (Przybylski et al., 2013), consumer-oriented FOMO, as a response to varying types of appeals such as personal vs. impersonal or commercial vs. noncommercial, may change temporarily (Hodkinson, 2016). Commercial FOMO can be triggered personally by a salesperson or employee or impersonally through web sites and advertisements, to nudge consumers to purchase while noncommercial FOMO is often triggered by family or close friends in-person or impersonally (Hodkinson, 2016).

FOMO manifests when consumers make a decision between uncertain, potential and current alternatives. Believing in the relevancy and favorability of an experience is a necessity for FOMO to occur. For example, a person that dislikes video games won't feel like they are missing out anything when they see a peer purchasing a newly released game. Normally, FOMO should trigger emotional responses which can affect purchasing decision (Przybylski et al., 2013).

In this study, FOMO is used to explain the purchasing behavior of Pokemon GO players where Consumption Value Theory falls short as FOMO theory suggests not all decisions are made solely because of the values of products or services and the anxiety caused by feeling of missing out plays a role in certain decisions. These decisions are often impulsive and can lead to regret over time (Palmeria, 2021).

Methodology

Method and Data Collection

This study applies content analysis method as a qualitative technique. It is a technique to be used "to provide knowledge and understanding of the phenomenon under study" (Downe-Wamboldt, 1992). Weber (1990) emphasizes the importance of content analysis in transforming vast amounts of disorganized data into a streamlined and manageable set of categories. Content analysis method includes two types: inductive and deductive. Inductive content analysis is a bottom-up approach that is used when there are no predetermined themes or categories. Instead, the categories and themes emerge from the data itself during the analysis process. This approach is especially useful when exploring new or relatively unknown phenomena (Elo & Kyngäs, 2008). Deductive content analysis is a top-down approach that is guided by existing theories, models, or frameworks. The researcher starts with predefined categories or codes based on prior knowledge or research and applies them to the data. With this purpose, this study uses deductive content analysis to organize the data obtained from interviews and categorize them to a later comparison with the existing literature. Elo and Kyngäs (2008) explain that deductive content analysis, as utilized in this study, primarily aims to retest a previously studied theory or hypothesis found in existing literature. In this study, deductive content analysis technique is preferred because there is an existing categorization towards motivations researched by Hamari and Keronen (2017).

Data collection was carried out using semi-structured interviews. The questions were adapted from previous studies on gamers' motivations for in-game purchases. One study by Liblik and van Berlo (2016) involved interviews with 31 university students in Sweden who had bought virtual goods. Another study by Ferguson (2020) explored the effects of microtransactions on the Fallout gaming community through content analysis. Lastly, Jarrad's (2021) research focused on understanding the cognitive processes behind in-game purchase decisions. This research was conducted following the approval of the relevant ethics committee. The study was carried out during the Pokémon GO Community Day event held on December 22, 2022, in Karşıyaka, İzmir. To protect institutional confidentiality, the ethics committee's name is not disclosed. The research took place within the specified date and adhered to ethical guidelines throughout the process.

After the approval of the ethics committee, the research was conducted at the Pokemon GO Community Day event in December 22, 2022, held in Karşıyaka, Izmir.

Sample

Purposive sampling method was used to construct the sample of the study. This sampling method enables the researcher to use their own judgement to find participants best suited for the study's objectives (Etikan and Bala, 2017). The sample was selected during the Pokemon GO Community Day event in December 2022, held in Karşıyaka, Izmir. This event was chosen for its potential to gather many Pokemon GO players in one place simultaneously and for its inclusion of paid elements, which likely attracted players who made in-game purchases. Eligibility required participants to be over 18 and to have made at least one in-game purchase since the game's launch in June 2016. After excluding ineligible participants, 28 interviews were completed. The demographic details are presented in Table 3.

Table 3

Demographic Characteristics of the Sample

Demographics	n	%	Demographics	n	%
Gender			Education		
Male	22	78,5	Primary School	0	0
Female	6	21,4	Secondary School	0	0
Total	28	100	High School	3	10,7
Marital Status			Vocational School	4	14,2
Married	9	32,1	Undergraduate	13	46,4
Single	19	67,8	Graduate	8	28,5
Total	28	100	Total	28	100
Age			Income		
18-29	14	50	>4000 TL*	7	25
30-39	12	42,8	4001-7000 TL	7	25
40-49	0	0	7001-10000 TL	3	10,7
50-59	2	7,1	<10001 TL	11	39,2
<60	0	0	Total	28	100
Total	28	100			
Employment					
Employed	20	71,4			
Unemployed	8	28,5			
Total	28	100			

*1 TL (Turkish Lira) =18,70$(at the time of data collection)

Gaming and Spending Behavior of the Sample

More than one-third of the players have been playing since the game's release. There is a noticeable drop in player numbers as the years go on, except for the 1-2 year interval, which saw 9 players, likely indicating new players during the Covid-19 period. Nearly 93% play daily, with the rest playing weekly. Most players spend 1-3 hours per day, with none exceeding 10 hours. The most common purchase frequency is "a couple of times a month," and the most frequent spending amount is over 100 TL, with 68% aware of the value of their purchases. Remote raid passes and premium raid passes are the most purchased items, while poffins, lure modules, Home transporter energy, and stickers were never bought by the respondents.

Analysis

The analysis process had three stages. First, a categorization matrix was established (Vimal and Subramani, 2017). The next step involved coding the data according to these predefined categories. Finally, researchers compared the findings with existing literature to retest the categories. This study identified 39 codes for in-game purchase motivations in Pokémon GO players, with 34 aligning with the literature and 5 being unique. The motivations were categorized as functional, social, emotional, economic, and psychological, with 2 additional codes listed under other motivations (Table 4). Intercoder reliability, calculated using Microsoft Excel, yielded a Cohen's Kappa of k=0.8941 (89.41%), indicating almost perfect agreement.

Table 4

Main Theme and Categories of the Research

Main Theme Categories	**Number of Pokemon GO Players**	**Frequency (%)**
Motivations	**28**	**100**
Functional Motivations	26	92,8
Social Motivations	21	75
Emotional Motivations	21	75
Economical Motivations	21	75
Psychological Motivations	6	21,4
Other Motivations	5	17,8

Findings

Table 5 outlines the six primary categories motivating Pokémon GO players to make in-game purchases, along with the number of codes for each category. The first category, "Functional Motivations" includes ten codes: avoid waiting, character advancement, competitive advantage, continue playing, participating in a special event, perceived usefulness, performance expectancy, reaching completion, saving time, and spatial proximity/distant access. Among the respondents, 26 out of 28 (92,8%) were influenced by functional motivations, which enhance gameplay. The second category, "Social Motivations" comprises five codes: giving gifts to friends, indulging children, playing with friends, rarity, and showing to friends. Purchases driven by social motivations were reported by 21 out of 28 (75%) respondents, highlighting the role of player relationships and social status.

Table 5

Drivers of Pokemon Go In-Game Purchase Motivations

	Motivation Categories	Motivations	Sample Answers
MOTIVATIONS	**Functional Motivations**	Avoid Waiting Character Advancement Competitive Advantage Continue Playing Participating in a Special Event Perceived Usefulness Performance Expectancy Reaching Completion Saving Time Spatial Proximity/Distant Access	*"I'm purchasing raid passes to be able to catch Pokémon with higher combat power"* *"Lucky eggs help me level faster, therefore, I frequently purchase them"*
	Social Motivations	Giving Gifts to Friends Indulging Children Playing with Friends Rarity Showing off to Friends	*"The items I purchase help me socialize with other players"*
	Emotional Motivations	Decoration/Personalization Elevated Experience Enjoyment Expectancy Excitement of Purchasing Fun Perceived Enjoyability Regret	*"When purchasing event tickets, while I usually feel excited with the anticipation of the event, this excitement might later turn into regret depending on how enjoyable the event was."*
	Economical Motivations	Collectability Discount Effort Expectancy Exclusivity Impulse Purchasing Investing in a Hobby Offered Contents Price/Value Ratio Pricing Scarcity Supporting a Good Game/Game Developer	*"I purchase pokéballs and potions only if they are sold in discounted bundles."* *"I ran out of space item and Pokémon storage while playing, so I made a sudden decision to purchase additional storage space just to continue playing the game"*
	Psychological Motivations	Fear of Missing Out Reward Sensitivity Winning Back Lost Credits	*"The only reason I purchase raid passes is catching rare Pokémon which appear only once or twice in a year."*
	Other Motivations	Game Design/Purpose Misalignment Multi-Platform Access Physical Activity	*"reason for playing Pokemon GO is catching shiny Pokemon with the purpose of transferring them to the main series games on Nintendo consoles"*

The third category, "Emotional Motivations" encompasses seven codes: decoration/personalization, enhanced experience, enjoyment expectancy, thrill of buying, fun, perceived enjoyment, and regret. These factors impact players' emotions before, during, or after making a purchase, with 21 out of 28 (75%) respondents influenced by them. The fourth category, "Economic Motivations," includes eleven codes: collectability, discount, effort expectancy, exclusivity, impulse buying, hobby investment, offered contents, price/value ratio, pricing, scarcity, and supporting a good game/developer, affecting 21 (75%) respondents. "Psychological Motivations," the fifth category, has three codes: fear of missing out, reward sensitivity, and winning back lost credits, motivating only 6 (21,4%) respondents. Finally, the 'Other Motivations' category covers game design/purpose misalignment, multi-platform access, and physical activity, influencing 5 (17,8%) respondents. Although these motivators do not fit neatly into other categories, they still drive in-game purchases.

Discussion and Implications

Microtransactions have long been a significant force in the gaming industry, permeating nearly every game and continuing to generate income from players even after they have paid the full price for the game. In this context, it is essential for all stakeholders to comprehend the factors motivating gamers to buy virtual goods. Game developers must grasp these motivations to better tailor their offerings, aiming to boost sales and maintain a robust revenue stream. However, balancing this with not overwhelming players is crucial to avoid causing frustration. As discussed in the literature review, gamers often develop resistance towards microtransactions, impacting their attitudes towards both the purchases and the developers behind them.

It's also vital for policymakers to understand these factors to recognize and address predatory practices before they exploit gamers, particularly vulnerable groups like minors or individuals with gaming or gambling disorders. Gamers themselves can benefit from understanding the influences on their purchasing decisions, enabling them to make more informed choices and avoid falling into the traps set by game developers. However, gamers should also be aware that their purchases and how they use them can significantly impact other players' perceptions of them.

This study addresses a central question and utilizes deductive content analysis to uncover the factors motivating players to make in-game purchases. The analysis compares these findings with existing literature to highlight similarities and differences. From the content analysis of interview responses, 39 distinct motivators were identified for Pokémon GO players' in-game purchases. These identified codes were then compared with the literature, and similar codes were organized into six pre-defined categories under the overarching theme of motivations for in-game purchases. Nine drivers under "Functional Motivations" such as avoid waiting, character advancement perfectly match with the literature, however, spatial proximity/distant access motivator seems to be unique to Pokemon GO due to game mechanics. One player said *"when I am buying a remote raid pass, the gym's distance to my locations plays an important role in my decision" while another added "the most important factor in my decision to purchase remote raid pass is being able to play from the comfort of my home".* This code results from the capabilities offered by the remote raid pass, enabling Pokémon GO players to participate in raid battles from any location without physical movement. Additionally, other identified functionality codes also prioritize practical benefits.

Five drivers under the "Social Motivations" category such as playing with friends, all match with the current literature. Some of the answers that were given for this motivation to be revealed are; *"I purchased the event ticket to spend time with my son"* for indulging children, *"I also want to catch the shiny Pokemons appearing exclusive to this event"* for rarity (shiny is the cause of rarity here), *"the reason I purchase raid pass is playing with my friends"* for playing with friends, *"I collect shinies primarily because of collection reason and then to show off to my friends"* for showing off to friends, *"when I purchase community day and GO Fest tickets for myself, I also buy some for my friends so I don't have to play alone"* for giving gifts to friends. Clearly, all these

motivations are driven by social factors. Given that Pokémon GO is a highly social game, it is not surprising that social motivators were more prevalent than anticipated.

Except for enjoyment expectancy, all other codes, such as decoration and personalization, within the "Emotional Motivations" category are well-documented in existing literature. For instance, to illustrate enjoyment expectancy, one participant shared, *"I buy community day tickets to spend quality time with my partner and savor the experience."* Although similar to performance expectancy, enjoyment expectancy focuses on anticipating a particular emotional experience rather than a functional benefit. Essentially, the respondent anticipates that the community day will provide entertainment. The codes in this category all stem from underlying emotional drivers.

Under "Economical Motivations" category out of 11 codes, 10 (e.g. discount) already exists in the literature. The only one that was not previously listed is scarcity. Scarcity refers to the lack of availability or lack of ways to obtain a particular item in Pokemon GO's case. One player said *"My reason for buying incubators is lack of options to get them"*. Another said *"The reason I bought PokeBalls was the lack of PokeStop to collect PokeBalls when the game was first launched in Turkey"*. Another example is; *"I purchase raid passes because these are the least distributed free items by Niantic"*. A recurring theme in these responses is the belief that there were no alternative ways to obtain their purchases, which drove them to complete the transactions. Aside from the motivation to support a good game or developer—which is primarily about showing appreciation and aiding their financial success—the remaining codes are primarily linked to financial reasons.

The fifth category, "Psychological Motivations" encompasses three specific codes: FOMO, reward sensitivity, and recovering lost credits. Examples illustrating these codes include: *"At the same time, I feel the need to work extra hard to regain the PokeCoins I spent and start playing more"* for winning back lost credits, *"I purchase event tickets to spend time with my boyfriend, have fun, and catch the Pokemon, which I might not able to catch later, exclusive to those events"* for fear of missing out, and finally *"While the main reason I join raids is catching Pokemon with high CP, having the shiny variant of that Pokemon or not determines the amount of times I attempt that raid"* for reward sensitivity. These motivations are psychological and, whether consciously or unconsciously, influence players to make purchases. These codes are also documented in existing literature.

In the "Other Motivations" category, 'multi-platform access' is a code supported by existing literature, whereas 'game/design purpose misalignment' and 'physical access' were identified through this study. Regarding multi-platform access, one player mentioned, *"My reason for playing Pokemon GO is catching shiny Pokemon with the purpose of transferring them to the main series games on Nintendo consoles"*. The following two statements were the reasons for game design/purpose misalignment and physical activity codes to be revealed; 1) *"As the game is progressing and the number of Pokemon that can be caught increasing, the Pokemon storage provided at the beginning of the game is not enough and I do not want to transfer the Pokemon I cought with hard work, therefore, I purchase Pokemon storage"*, and 2) *"To walk more while playing I purchase incubators"*. All Pokemon games' slogan is "Gotta Catch 'em All". A new player begins with 250 Pokémon slots, and without purchasing upgrades, this limit cannot be increased. Since there are roughly a thousand unique Pokémon available, it's impossible to catch them all with just 250 slots. Thus, the game's objective is to collect all available Pokémon, but the design of Pokémon GO makes this unachievable without additional payments. The second point is straightforward: players appear to seek physical activity and buy incubators as a motivation to get out and walk.

The results also show that, functional values such as unlocking new content, saving time, avoiding waiting, price related factors etc., emotional values such as excitement, having fun, enjoyment etc., social values such as showing off to friends, playing with friends etc., epistemic values such as experiencing new things, and conditional values such as participating in special events, seasonal events etc. are all present in the long list of motivations affect Pokemon GO players' in-game purchase decisions using microtransactions. Therefore, we can argue that components of consumption value theory do indeed affect the purchasing decision of Pokemon GO players. In the case of FOMO, many players actually answered that they were

making purchases just with the intention of not missing out on an experience, event, or event exclusive Pokemon. Judging from these answers we can conclude that FOMO is also a contributor in the series of decisions on the way the purchase.

Future Research and Limitations

This study was conducted with the aim of exploring Pokemon GO players' in-game purchase intentions using microtransactions. The results revealed that while similar to other games in many aspects, Pokemon GO"s unique game play style actually revealed a set of new motivations not found in other games. A future study can be conducted on other genres of games to determine whether the motivations of those games" players also yield differentiating results based on game genre. Future studies can also explore the role of gender on in-game purchase motivations to better understand if gender plays a significant role in the type microtransaction that players engage in.

The main limitation of this study was the relatively small sample size in comparison to the millions playing the game. Therefore, the findings are only used to explain the purchasing behavior of the sample that participated in this study and the generalizability of the results to whole Pokemon GO players is limited. Conducting a quantitative study with a larger sample of Pokémon GO players on their in-game purchase motivations would likely produce more significant and generalizable findings. It could also uncover additional motivations not identified in this research.

References

Adji, M. N., Chua, D., Kainama, N. and Feranita, F. (2019). Consumer preference on paid game microtransaction. *Journal of Research in Marketing,* 10(3), 832–842. https://doi.org/10.17722/jorm.v10i3.779

Artz, B. and Kitcheos, A. (2016). *Microtransactions: A study of consumer behavior and virtual goods/services among students at Linköping University in Sweden.* [Unpublished manuscript]. Linköping University. Retrieved from https://liu.diva-portal.org/smash/record.jsf?pid=diva2%3A941477&dswid=4780

Barkman, S., and Mattsson, M. (2019). *Microtransactions and lotteries in video games* [Unpublished master's thesis]. Retrieved from https://diva-portal.org>get>FULLTEXT01

Böffel, C., Würger, S., Müsseler, J., and Schlittmeier, S. J. (2021). Character customization with cosmetic microtransactions in games: Subjective experience and objective performance. *Frontiers in Psychology, 12,* Article 770139. https://doi.org/10.3389/fpsyg.2021.770139

Caetano, R. G. F. (2017). *Main drivers for microtransactions as impulse purchases in e-commerce* (Master's thesis, Instituto Universitário de Lisboa). Retrieved from https://repositorio.iscte-iul.pt/handle/10071/15309

Castillo, D. J. (2019). Unpacking the loot box: How gaming's latest monetization system flirts with traditional gambling methods. *Santa Clara Law Review,* 59, 165–208. Retrieved from https://digitalcommons.law.scu.edu/lawreview/vol59/iss1/5

Cleghorn, J., and Griffiths, M. D. (2015). Why do gamers buy 'virtual assets'? An insight into the psychology behind purchase behavior. *Digital Education Review, 27,* 85–104. Retrieved from http://greav.ub.edu/der/

Clement, J. (2022a, December 2). Video game market revenue worldwide in 2022, by segment. Statista. Retrieved from https://www.statista.com/statistics/292751/mobile-gaming-revenue-worldwide-device

Clement, J. (2022b, August 30). Annual revenue generated by Pokémon GO worldwide from 2016 to 2022. Statista. Retrieved from https://www.statista.com/statistics/882474/pokemon-go-all-time-player-spending-countries

Derrington, S., Star, S., and Kelly, S. J. (2021). The case for uniform loot box regulation: A new classification typology and reform agenda. *Journal of Gambling Issues, 46*. https://doi.org/10.4309/jgi.2021.46.1

Diaconu, V. I. (2015). New trends in the motivation behind buying luxury textile products. *International Journal of Economic Practices & Theories,* 5(5), 455–461. Retrieved from https://api.semanticscholar.org/CorpusID:59045243

Diaczok, M. P., and Tronier, P. (2019). *An investigation of monetization strategies in AAA video games* [Unpublished master's thesis]. https://www.tuw.edu/psychology/psychology-behind-microtransactions/ Retrieved from https://research.cbs.dk/en/studentProjects/an-investigation-of-monetization-strategies-in-aaa-video-games

Downe-Wamboldt, B. (1992). Content analysis: Method, applications, and issues. *Health Care for Women International,* 13(3), 313–325. https://doi.org/10.1080/07399339209516006

Duverge, G. (2016). Insert more coins: The psychology behind microtransactions. Retrieved from https://www.tuw.edu/psychology/psychology-behind-microtransactions/

Dykman, A. (2012, March 21). The fear of missing out. *Forbes.* Retrieved from http://www.forbes.com/sites/moneybuilder/2012/03/21/the-fear-of-missing-out/

Elo, S., and Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing,* 62(1), 107–115. https://doi.org/10.1111/j.1365-2648.2007.04569.x

Etikan, I., and Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal,* 5(6), Article 00149. https://doi.org/10.15406/bbij.2017.05.00149

Evers, E. R., Van de Ven, N., and Weeda, D. (2015). The hidden cost of microtransactions: Buying in-game advantages in online games decreases a player's status. *International Journal of Internet Science, 10(1),* 20–36. Retrieved from https://research.tilburguniversity.edu/en/publications/the-hidden-cost-of-microtransactions-buying-in-game-advantages-in

Farrell, G. (2021). *Customer behaviour of microtransactions consumption amongst males 18-30 years of age* (Master's thesis, National College of Ireland). Retrieved from https://norma.ncirl.ie/5463/

Ferguson, K. (2020). *An analysis of the impact of microtransactions on an online gaming community* [Unpublished doctoral dissertation]. Retrieved from https://medium.com/@namandeepk26/genshin-impact-navigating-the-narrative-monetization-and-community-in-modern-gaming-024a3048928f

Gainsbury, S. M., King, D. L., Russell, A. M., and Delfabbro, P. (2016). Who pays to play freemium games? The profiles and motivations of players who make purchases within social casino games. *Journal of Behavioral Addictions,* 5(2), 221–230. https://doi.org/10.1556/2006.5.2016.031

Golynchev, A. (2019). *Microtransactions as a way of monetization in the video game industry* [Master's thesis]. Retrieved from https://urn.fi/URN:NBN:fi:amk-2019091318467

Gong, M., Wagner, C., Wang, J., & Zhao, Y. C. (2024). Why do players spend money on mobile massively multiplayer online role-playing games? A Wixom and Todd framework. *Information & Management,* 61(8), 104049.

Guo, Y. U. E., and Barnes, S. J. (2012). Explaining purchasing behavior within *World of Warcraft. Journal of Computer Information Systems,* 52(3), 18–30. https://doi.org/10.1080/08874417.2012.11645555

Hamari, J., Alha, K., Järvelä, S., Kivikangas, J. M., Koivisto, J., and Paavilainen, J. (2017). Why do players buy in-game content? An empirical study on concrete purchase motivations. *Computers in Human Behavior,* 68, 538–546. https://doi.org/10.1016/j.chb.2016.11.045

Hamari, J., and Keronen, L. (2017). Why do people buy virtual goods? A meta-analysis. *Computers in Human Behavior,* 71, 59–69. https://doi.org/10.1016/j.chb.2017.01.042

Hodkinson, C. (2016). "Fear of missing out" (FOMO) marketing appeals: A conceptual model. *Journal of Marketing Communications,* 25(1), 1–24. https://doi.org/10.1080/13527266.2016.1234504

Hussain, A., Ting, D. H., & Marder, B. (2024). Why premium in freemium: a hedonic shopping motivation model in virtual game retailing. *Information Technology & People.*

Iqbal, M. (2022, June 30). *Pokemon GO revenue and usage statistics (2022).* Business of Apps. https://www.businessofapps.com/data/pokemon-go-statistics/

Jarrad, A. R. (2021). *Gaming disorder and microtransactions: Understanding the cognitive processes behind in-game purchases* [Doctoral dissertation]. Retrieved from https://hdl.handle.net/2440/133209

JWT Worldwide. (2011). *FOMO: JWT explores fear of missing out phenomenon.* Retrieved June 18, 2023, from www.jwt.com/fomojwtexploresfearofmissingoutphenomenon/

Khonych, A. (2019). *Ethical and legal dimensions of microtransactions in videogames* [Master's thesis]. Retrieved from https://urn.fi/URN:NBN:fi:amk-2019111120952

Kim, H. S., Hollingshead, S., and Wohl, M. J. (2017). Who spends money to play for free? Identifying who makes microtransactions on social casino games (and why). *Journal of Gambling Studies,* 33(2), 525–538. DOI: 10.1007/s10899-016-9626-6

King, D. L., Delfabbro, P. H., Gainsbury, S. M., Dreier, M., Greer, N., and Billieux, J. (2019). Unfair play? Video games as exploitative monetized services: An examination of game patents from a consumer protection perspective. *Computers in Human Behavior, 101, 131–143*. https://doi.org/10.1016/j.chb.2019.07.017

King, D. L., Russell, A. M., Delfabbro, P. H., and Polisena, D. (2020). Fortnite microtransaction spending was associated with peers' purchasing behaviors but not gaming disorder symptoms. *Addictive Behaviors, 106,* Article 106311. https://doi.org/10.1016/j.addbeh.2020.106311

Kleinman, R. A., and Das, S. (2020). Excessive spending in a "free-to-play" smartphone game. *The American Journal on Addictions, 29(6),* 528–530. https://doi.org/10.1111/ajad.13049

Latvala, T. (2019). *Elements of gambling in video game microtransactions: Loot boxes* [Master's thesis]. Retrieved from https://www.semanticscholar.org/paper/Elements-of-gambling-in-video-game-%3A-loot-boxes-Latvala/261b0bfea355c3c423b11544d1f41f97d78440a4

Liblik, K. C., and van Berlo, K. (2016). *The business of microtransactions: What is the players' motivation for purchasing virtual items?* [Unpublished thesis]. Retrieved from https://www.diva-portal.org/smash/get/diva2:937793/fulltext01.pdf

Ma, Y., & He, W. (2024). "Coolness" and "joy" in games: factors influencing mobile game players' willingness to make in-game purchases. *Asia Pacific Journal of Marketing and Logistics.*

McCaffrey, M. (2019). The macro problem of microtransactions: The self-regulatory challenges of video game loot boxes. *Business Horizons, 62*(4), 483–495. https://doi.org/10.1016/j.bushor.2019.03.001

Naureen, S., & Faiz, S. Aesthetic Design and In-Game Purchases, with Considerations of Hedonic, Utilitarian, and Social Motivations. *Utilitarian, and Social Motivations.*

Neely, E. L. (2021). Come for the game, stay for the cash grab: The ethics of loot boxes, microtransactions, and freemium games. *Games and Culture,* 16(2), 228–247. Retrieved from https://www.researchgate.net/publication/329403049_Come_for_the_game_stay_for_the_cash_grab_the_ethics_of_loot_boxes_microtransactions_and_freemium_games

Okereke, W. (2020). Gamble-boxes and micro-theft-actions: Why loot boxes and microtransactions should be banned from video games. *T. Marshall Law Review, 45,* 57–78. Retrieved from https://heinonline.org/HOL/Page?collection=journals&handle=hein.journals/thurlr45&id=68&men_tab=srchresults

Palmeira, M. (2021). The interplay of microtransaction type and amount of playing in video game evaluations. *Computers in Human Behavior, 115,* Article 106609. https://doi.org/10.1016/j.chb.2020.106609

Petrovskaya, E., Deterding, S., and Zendle, D. I. (2022, April). Prevalence and salience of problematic microtransactions in top-grossing mobile and PC games: A content analysis of user reviews. In *CHI Conference on Human Factors in Computing Systems* (pp. 1–12).

Przybylski, A. K., Murayama, K., DeHaan, C. R., and Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior,* 29(4), 1841–1848. https://doi.org/10.1016/j.chb.2013.02.014

Qvick, P. (2020). *Resistance against microtransactions in PC games* [Master's thesis]. Retrieved from https://jyx.jyu.fi/handle/123456789/72886

Sheth, J. N., Newman, B. I., and Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research,* 22(2), 159–170. https://doi.org/10.1016/0148-2963(91)90050-8

Teng, C.-I. (2018). Look to the future: Enhancing online gamer loyalty from the perspective of the theory of consumption values. *Decision Support Systems, 114,* 49–60. https://doi.org/10.1016/j.dss.2018.08.007

Tomić, N. (2017). Effects of microtransactions on the video game industry. *Megatrend Review, 14*(3), 239–257. DOI:10.5937/MegRev1703239T

Tomić, N. Z. (2018). Economic model of microtransactions in video games. *Journal of Economic Science Research, 1*(1), 1–10. https://doi.org/10.30564/jesr.v1i1.439

Vimal, J., and Subramani, R. (2017). Understanding qualitative content analysis in the light of literary studies. *Language in India, 17*(3), 478–488. Retrieved from http://www.languageinindia.com/march2017/vimalqualitativeanalysisfinal.pdf

Weber, R. P. (1990). *Basic content analysis.* Newbury Park: Sage.

Wong, A. W. T. (2019). Analysis of global regulatory schemes on chance-based microtransactions. *Asper Review of International Business and Trade Law, 19,* 111–134. Retrieved from https://journals.library.ualberta.ca/asperreview/index.php/asperreview/article/view/222

Zendle, D., and Cairns, P. (2018). Video game loot boxes are linked to problem gambling: Results of a large-scale survey. *PLoS One,* 13(11), Article e0206767. https://doi.org/10.1371/journal.pone.0206767

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GENİŞLETİLMİŞ ÖZET

Amaç: Oyun endüstrisindeki dönüşümün temel nedeni mobil oyunlar değil, mobil oyun geliştiricileri tarafından uygulanan "freemium" iş modeli olmuştur. Freemium terimi, ilk olarak Gainsbury ve arkadaşları (2016) tarafından, bir şirketin kullanıcılardan sunduğu ürün veya hizmet için ücret talep etmek yerine, gelir elde etmek amacıyla mikroişlemleri kullandığı iş modelini tanımlamak için ortaya atılmıştır. Freemium modelinin tanıtılması, oyun endüstrisinde köklü bir değişim yaratmış ve gelir elde etme yöntemlerini temelden değiştirmiştir. Geleneksel modellerde oyunlar peşin ödeme veya abonelik ile satın alınırken, freemium modeli oyunculara oyuna ücretsiz erişim imkânı sunarken, gelir kaynağı olarak oyun içi satın alımlara yönelmektedir. Ücretsiz oynanabilen oyunlarda oyuncuların oyun içi satın alım yapma motivasyonlarına odaklanan veya pazarlama teorileri ile oyuncuların satın alma motivasyonları arasındaki bağlantıyı kuran nadiren çalışma vardır. Bu nedenle, bu çalışma, oyuncuların mikroişlemler yoluyla oyun içi satın alım motivasyonlarını anlamayı hedefleyerek, oyuncuların oyun içi satın alım yapma motivasyonlarına ilişkin boşluğu kısmen doldurarak mikroişlemler literatürüne katkıda bulunmayı amaçlamaktadır.

Tasarım ve Yöntem: Bu çalışma, uygulamalı bir araştırma olup, keşifsel tasarım benimsenmiştir. Araştırmanın amacı, Pokemon GO oyuncularının oyun içi satın alma motivasyonlarını anlamaktır. Veri toplama aracı olarak yarı-yapılandırılmış görüşmeler kullanılmıştır. Yarı yapılandırılmış görüşmeler, katılımcılarla yüz yüze yapılan ve belirli bir dizi sorunun önceden hazırlanmış olduğu bir görüşme tekniğidir. Bu yöntemde, araştırmacı belirli temel sorular sormakta, ancak katılımcının cevaplarına göre esneklik sağlanarak detaylı bilgi elde edilmektedir. Yarı yapılandırılmış görüşmeler, hem veri toplama sürecine rehberlik ederken hem de katılımcının deneyimlerini derinlemesine inceleme fırsatı tanımaktadır. Görüşmeler, belirlenen Pokémon GO oyuncuları ile Aralık 2022'de İzmir/Karşıyaka'da düzenlenen Pokémon GO Community Day etkinliğinde yapılmıştır. Etkinlik, birçok Pokémon GO oyuncusunun aynı anda aynı mekânda bulunmasını sağladığı için, oyun içi satın alımlar yapmış oyunculara erişim kolaylığı sağlamıştır. Görüşme soruları, daha önce oyuncuların oyun içi satın alma motivasyonları üzerine yapılmış çalışmaların (Liblik & van Berlo, 2016; Ferguson, 2020; Jarrad, 2021) uyarlanmasıyla oluşturulmuştur. Görüşme formunun ve sürecinin etik kurul onayı alınmıştır. Görüşmeciler, belirli soruları sormakla birlikte, katılımcıların eklemeler yapmalarına veya belirli konular üzerinde daha ayrıntılı konuşmalarına izin verilmiştir. Görüşmeler sırasında alınan notlar ve kaydedilen yanıtlar daha sonra tümdengelim içerik analizi yöntemi ile analiz edilmiştir. Tümdengelim içerik analizi, mevcut teoriler, modeller veya önceden belirlenmiş kategorilere dayalı olarak verilerin analiz edildiği sistematik bir yöntemdir. Veriler, literatürde yer alan ve oyun içi satın alma motivasyonları üzerine yapılmış çalışmalara (örneğin Hamari & Keronen, 2017) göre oluşturulan önceden tanımlanmış kategorilere dayalı olarak organize edilmiştir. Görüşmelerden elde edilen yanıtlar, belirlenen kategoriler doğrultusunda kodlanmıştır. Bu aşamada işlevsel, sosyal, duygusal, ekonomik, psikolojik gibi motivasyon temaları kullanılmıştır. Sonuç olarak, katılımcıların satın alma davranışları ve motivasyonları incelenerek, bulgular mevcut literatürle karşılaştırılmış ve yeni oyun mekanikleriyle ilgili motivasyonlar belirlenmiştir.

Bulgular: Verilerin analizi sonucunda, Pokemon GO oyuncularının oyun içi satın alma motivasyonları altı temel kategoriye ayrılmıştır: işlevsel, sosyal, duygusal, ekonomik, psikolojik ve diğer motivasyonlar. Toplam altı kategori altında 39 motivasyon belirlenmiştir. İşlevsel motivasyonlar arasında zaman kazanma, beklemeyi azaltma, karakter geliştirme, rekabet avantajı ve etkinliklere katılım gibi unsurlar yer almakta olup, 28 katılımcının 26'sı bu motivasyonlardan etkilenmiştir. Sosyal motivasyonlar ise arkadaşlarla oynama, hediye verme, gösteriş yapma ve nadir içeriklere sahip olma gibi sosyal ilişkilere dayalı faktörleri içerir ve 21 katılımcı tarafından bildirilmiştir. Duygusal motivasyonlar, kişiselleştirme, eğlenme ve satın alma heyecanı gibi duygusal deneyimleri kapsar ve yine 21 katılımcıyı etkilemiştir. Ekonomik motivasyonlar arasında indirimler, koleksiyon yapma ve fiyat/değer oranı gibi faktörler öne çıkmış, 11 alt koddan 10'u mevcut literatürde doğrulanmıştır. Psikolojik motivasyonlar arasında en dikkat çeken, birçok oyuncunun yalnızca etkinlikleri veya nadir Pokemonları kaçırmamak için alışveriş yapmasını ifade eden "kaçırma korkusu" (FOMO) olmuştur. Son olarak, diğer motivasyonlar arasında fiziksel aktiviteyi teşvik eden kuluçka makinesi satın alımı

ve oyunun tasarımı ile amaç uyumsuzlukları yer almaktadır. Bu bulgular, oyuncuların kararlarını etkileyen tüketim değeri teorisinin bileşenleri olan işlevsel, duygusal, sosyal ve epistemik değerlerin belirgin bir şekilde varlığını ortaya koymuştur. Mekansal yakınlık/uzak erişim, eğlence beklentisi, az bulunurluk (nadirlik), oyun/tasarım amacı uyumsuzluğu ve fiziksel erişim motivasyonlarının oyun mekanikleri nedeniyle Pokemon GO'ya özgü olduğu ortaya çıkmıştır. Oyun içi satın alma kararlarının, hem oyun mekaniği hem de sosyal ve psikolojik faktörlerle nasıl şekillendiğini anlamak, geliştiricilere daha etkili stratejiler sunmak açısından önemli çıkarımlar sunmaktadır.

Sınırlılıklar: Bu çalışmanın en önemli sınırlaması, oyunu oynayan milyonlarca kullanıcıya kıyasla nispeten küçük bir örneklem büyüklüğüne sahip olmasıdır. Araştırmaya yalnızca 28 katılımcı dahil edilmiş olup, bulgular yalnızca bu örneklemin satın alma davranışlarını açıklamak amacıyla kullanılmıştır. Bu durum, elde edilen sonuçların tüm Pokémon GO oyuncularına genelleştirilebilirliğini sınırlandırmaktadır. Çalışmanın bulgularının daha geniş bir oyuncu kitlesi için geçerli olup olmadığını test etmek amacıyla, daha büyük ve çeşitli bir örneklemle gerçekleştirilecek nicel bir araştırma, oyuna dair satın alma motivasyonlarını daha kapsamlı şekilde ortaya koyabilir. Böyle bir yaklaşım, farklı oyuncu gruplarının motivasyonlarının karşılaştırılmasına olanak tanırken, aynı zamanda pazarlama stratejilerinin geliştirilmesi için daha anlamlı ve genelleştirilebilir sonuçlar sunabilir. Bu nedenle, ileride yapılacak çalışmaların daha geniş bir veri setiyle yürütülmesi, oyun içi satın alma motivasyonlarına ilişkin daha güçlü teorik çıkarımlar sağlaması açısından faydalı olacaktır.

Öneriler (Teorik, Uygulama ve Sosyal): Bu çalışma, mikroişlem literatürüne özellikle oyun içi satın alma motivasyonlarını açıklayan teorik katkılarda bulunmaktadır. Özellikle, tüketim değeri teorisi kapsamında işlevsel, sosyal ve duygusal motivasyonların nasıl etkileşimde bulunduğunu ortaya koymaktadır. Ayrıca, oyun tasarımıyla ilişkilendirilen motivasyonlar gibi, oyun mekaniklerine özgü bulgular teorik zenginlik sağlamaktadır. Bu da oyun içi satın alma davranışlarının daha derinlemesine anlaşılmasına katkıda bulunur. Kaçırma korkusu ve sosyal statü gibi faktörlerin oyuncular arasında nasıl yaygın olduğunu gösteren bulgular, sosyal etkileşimlerin oyun dünyasındaki rolünü vurgulamaktadır. Bu tür sosyal etkileşimler, oyuncuların birbirleriyle rekabet veya iş birliği yaparken satın alma kararlarını etkileyebilir. Ayrıca, oyun tasarımı ve sosyal dinamikler arasındaki ilişkiye dikkat çekerek, oyuncu topluluklarındaki sosyal yapıların daha fazla araştırılmasını teşvik eder. Çalışma oyun geliştiricileri için, oyuncu memnuniyetini artırmak adına kişiselleştirilmiş ve işlevsel öğelere daha fazla odaklanmalarını önermektedir. Özellikle oyun içi satın alma süreçlerinde şeffaflık ve adil fiyatlandırma stratejileri geliştirilmesi gerekmektedir. Ayrıca, FOMO (kaçıramama korkusu) etkisine dayalı pazarlama stratejileri kullanırken dikkatli olunmalı, çünkü bu durum oyuncularda aşırı baskı yaratabilmektedir. Geliştiriciler, oyun tasarımıyla uyumlu ve özgün motivasyonlar sunarak, oyuncu deneyimini optimize edebilir.

Özgün değer: Bu çalışmanın özgün değeri, Pokémon GO gibi artırılmış gerçeklik oyunlarında oyuncuların mikroişlem kullanımlarını motive eden unsurları derinlemesine analiz ederek literatüre yeni bir bakış açısı kazandırmasıdır. Özellikle, oyunun benzersiz oyun mekaniklerinin neden olduğu yeni motivasyonlar, mevcut literatürde sınırlı biçimde ele alınmıştır. Bu çalışma, tüketim değeri teorisi çerçevesinde bu motivasyonları inceleyerek oyun içi satın alma davranışlarını anlamada önemli bir katkı sağlar. Ayrıca, mikroişlemlere dair genel kalıpların dışına çıkarak daha geniş bir perspektif sunar.