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Gamification in Mindfulness Mobile Applications: The Effects of Rewards on Purchase Intention

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ABSTRACT

Technology's widespread use has sparked interest in how mobile applications might enhance human well-being. In the digitalized environment, gamification has been adapted to mobile applications. Coupled with the increasing concern toward gamification and well-being mobile applications, the effects of gamification on mindfulness mobile applications are now of burgeoning interest among scholars and practitioners. However, literature is still in its introductory stages. This study attempted to explain gamification in mindfulness mobile applications by examining how rewards influence purchasing intentions. In-depth interviews and focus groups are conducted among users and data is analyzed via content analyses. Findings reveal that rewards lead to enjoyment, social interaction, and interactivity, which affects purchase intention. Apart from being one of the first attempts to provide an empirical basis for future models, findings of the current study are also expected to guide future research on gamification for better customer experience in business practices.

Keywords: Gamification, Rewards, Mindfulness Mobile Application, Purchase Intention

JEL Classification: O31, M39, M31

Bilinçli Farkındalık Mobil Uygulamalarında Oyunlaştırma: Ödüllerin Satın Alma Niyetine Etkileri

ÖZ

Teknolojinin yaygın kullanımı, mobil uygulamaların insan refahını geliştirmesine yönelik ilgiyi artırmaktadır. Dijitalleşen dünyada, oyunlaştırma, mobil uygulamalara adapte edilmektedir. Oyunlaştırma ve bilinçli farkındalık mobil uygulamalarına yönelik artan ilgiyle birleştiğinde, oyunlaştırmanın bilinçli farkındalık mobil uygulamaları üzerindeki etkileri akademisyenler ve uygulayıcılar arasında merak uyandırmaktadır. Ancak bu konuda literatür henüz başlangıç aşamasındadır. Bu çalışma, ödüllerin satın alma niyetini nasıl etkilediğini ortaya çıkararak, farkındalık mobil uygulamalarında oyunlaştırmanın daha iyi anlaşılmasını amaçlamaktadır. Bilinçli farkındalık mobil uygulama kullanıcıları ile derinlemesine görüşmeler ve odak grup çalışması yapılarak veriler toplanmıştır. Çalışmanın bulgularına içerik analizi yöntemi ile ulaşılmıştır. Bulgular ödüllerin, satın alma niyeti davranışları üzerinde etkili olması beklenen eğlence, sosyal etkileşim ve insan-bilgisayar etkileşimine yol açtığını ortaya koymaktadır. Çalışmanın, gelecekteki modeller için ampirik bir temel sağlamaya yönelik ilk girişimlerden biri olmasının yanı sıra, çalışma bulgularının ayrıca, iş uygulamalarında daha iyi müşteri deneyimi için oyunlaştırma üzerine gelecekteki araştırmalara rehberlik etmesi beklenmektedir.

Anahtar Kelimeler: Oyunlaştırma, Ödüller, Bilinçli Farkındalık Mobil Uygulaması, Satın Alma Niyeti

JEL Sınıflandırması: O31, M39, M31

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1.INTRODUCTION

Mobile health applications can provide consumers with 24-hour access to health services and education on a global scale. Attempting to enhance healthy behaviours and fostering well-being for all people of all ages is one of the United Nations' sustainable development objectives, and mindfulness mobile applications are seen as a tool for improving people's well-being. Popularity of consumer healthcare applications increased throughout the Covid-19 period. In recent years, mindfulness has received a lot of attention as a way to reduce cognitive sensitivity to stress and emotional distress. Thus, mindfulness activities are gaining popularity in the health and well-being field. The term "mindfulness" has its roots in Eastern philosophy and is most often associated with the practice of formal mindfulness meditation. Enhancing one's awareness of their thoughts, feelings, and physical sensations in the present moment while maintaining an open mind free from distraction and judgment is the focus of mindfulness (Kabat-Zinn, 1994). Within the area, the growing number of people interested in practicing mindfulness. Coupled with the convenience of using mobile applications in everyday life, the number of applications that focus on practicing mindfulness is increasing. In a nutshell, the number of users of mindfulness mobile applications are also increasing (Reyes, 2020). However, it should be emphasized that the main issue to be addressed about mobile applications is mitigating interaction loss and maintaining user engagement in the long term or on a continuous basis during the use of the application (Cechetti et al., 2019). Besides, the effectiveness of a mindfulness meditation related elements on the online purchase intentions of customers is very limited (King et al., 2013). Online customer journey surrounding the emotional requirement like meditation guidance is needed, or else, the solution cannot provide users engagement. The application accompanies the users in the customer journey, and participants become part of this story (Dias et al., 2018). Within this scope, growing interest in the impacts of gamification on mindfulness mobile applications is now spreading among academics and professionals since the components of gamification significantly affect users' intention to buy (Xu et al., 2020; Yang et al., 2020; Zhang et al., 2021).

The main goal of gamification is to ameliorate users' joy, enthusiasm, and engagement while captivating users, elevating their motivation, enabling them to achieve their goals, and raising their intention (Wood & Reiners, 2015). When the game dynamics meet the demands of the consumer's psychological needs, gamification is vital for increasing the likelihood that the customer will make an online purchase (Mullins & Sabherwal, 2020). Gamification embodies many elements like gifting/sharing, points, badges, rewards, friendships competition, achievement, collections, and these are critical factors to add emotion to the game process (Werbach & Hunter, 2012). The effects of gamified customer engagement that includes rewards, badges, leaderboards, challenge on loyalty that measures with purchase and repeat interaction are investigated with the mediating effects of enjoyment, achievement, and completion in virtual brand platforms (Harwood & Garry, 2015). In a similar vein, Zhang et al. (2021) delved into the effects of rewards and badges as gamification elements on impulse buying behaviour and examined this relationship with mediators like enjoyment and social interaction in the e-commerce platform. In the same manner, Raman (2020) examined the impact of gamification elements, like points, badges, and leaderboards, on behavioural intention in e-commerce platforms for online purchasers via perceived usefulness, perceived ease of use and social interaction and perceived enjoyment mediation. Following that, the effect of autonomy, rewards, absorption, and competition on enjoyment was investigated and how enjoyment affects online purchase intention in online shopping platforms is identified by Xu et al. (2020). Numerous studies have examined several important aspects of online customer behaviour (Chen et al., 2015). On the other hand, consumer behaviour studies within the context of gamification are still limited and needs to be enhanced (Tobon et al., 2020; Xi & Hamari, 2020). Drawing on this, the current study focuses on the effects of rewards on purchase intention of mindfulness mobile

applications. It is claimed that the rewards, which are crucial gamification components, significantly influence users' intention to buy. The conceptual and empirical research on how these rewards affect purchase intention, however, is still in progress and has to be improved in the extant literature. Moreover, the effects of getting reward and sharing reward is being discussed in limited studies with diverse settings (Hofacker et al., 2016; Raman, 2020; Y. Xu et al., 2020; Zhang et al., 2021). However, the influence of the visibility of rewards on purchase intention of the users is neglected to be analysed in previous body of research. Thus, this is one of the pioneer studies to assess the influence of getting, sharing and visibility of rewards in gamification on the purchase intention within the context of mindfulness mobile applications.

This study endeavours to contribute to the marketing literature in general and to the consumer behaviour literature in particular, in three ways. First, drawing on gamification components, this study broadens and deepens the understanding of rewards which is a critical component of gamification, in a theoretically integrated fashion. Second, it unveils the differential impacts of giving, sharing and the visibility of rewards on the purchase intention which has been relatively ignored by prior research. Third, it extends the current knowledge on the effects of rewards with the concentration on the mindfulness mobile application purchase intention contributing to the conceptualization and operationalization efforts of the purchase intentions of mindfulness mobile applications within the context of gamification. In a similar vein, the results are also expected to contribute to the future studies by improving the design and development of gamification components. Improving and adapting the gamification components and exploring how they affect purchase intention of customers is believed to pave the way for application developers to improve customer experience by enhancing the level of service they provide.

2. LITERATURE REVIEW

2.1. Gamification Features and Online Purchase Intention

Gamification is the process of incorporating digital game elements into non-game contexts in order to improve the user experience and attractiveness of users. It has garnered significant interest in digital marketing (Deterding et al., 2011). Gamification promotes motivation and engagement in the non-game environment through the use of game-based mechanics (Zichermann & Cunningham, 2011). It is the use of gaming components to non-game objectives in order to create a fun experience (Seaborn & Fels, 2015).

When analysing the gamification literature, several studies separate the fundamental features of gamification into three categories: dynamics, mechanics, and components. The components include points, a badge, gifting/sharing, a leaderboard, virtual items, levels, competition, achievement, collections, teams, and tasks. Competition, feedback, cooperation, challenge, rewards, chance (random or unknown reward) are all parts of mechanics. In game design, friendships, and restrictions, dynamics are associated with emotions (Werbach & Hunter, 2012; Zichermann & Cunningham, 2011). The primary objective of gamification, through its components, mechanics, and dynamics, is to boost the joy, enthusiasm, and participation in this process, while attract users, raise their motivation, empower them to meet their objectives and increase intention (Wood & Reiners, 2015).

Purchase intention is a term that includes the possibility of upcoming purchasing resulting from a customer ’s requirement and evaluation (Hung et al., 2011). Customer experience is probably to provide value and have an influence on customer behaviour, especially satisfaction and purchase intention, as a consequence of interactions between consumers and businesses (Alnawas & Aburub, 2016). According to Nah et al. (2011)individuals' combination

of cognitive and emotional responses during an interaction potentially leads in purchase intentions (Nah et al., 2011). Gamification is critical to increasing customers' online purchase intentions when the game's dynamics align with the consumers' psychological demands (Mullins & Sabherwal, 2020). Yang et al. (2020) concentrated on the gamification element, which involves a variety of components including such rewards, points, badges, competitiveness, and which aims to determine the effect of competitiveness on purchase intention. Moreover, the effect of rewards and badges on impulse buying behaviour has been explored with perceived enjoyment and social interaction in the e-commerce platform in China (Zhang et al., 2021). The impacts of gamification elements that are points, badges, and leaderboards are investigated on behavioural intention with some mediators, which are perceived enjoyment, perceived ease of use, perceived usefulness, and social interaction in e-commerce platforms for young female online buyers in India (Raman, 2020).

Fashion brands' mobile applications should indeed be investigated conceptually and practically to examine the relationship between customer experience, utilitarian and hedonic returns, and the intention to purchase (Hamouda, 2021). Furthermore, some social networking applications add game mechanics, such as rewards and competitions, to improve the customer experience (Silverman, 2011).

Enjoyment has a significant influence on impulse buying for online shoppers (Floh & Madlberger, 2013). Because of the ease with which learning could be seen and the higher likelihood of interaction among connections than in the TV purchasing environment, social interaction has an even greater impact on impulse purchase behaviour when it comes to online shopping (Xiang et al., 2016). According to Zhang et al. (2014), people who engage in social interactions with some other shoppers are more likely to make unplanned purchases on shopping websites.

Perceived enjoyment is defined as a reaction and pleasure of customers with the purchasing activity (D. Xu et al., 2014). Gamification features like giving rewards are among the key factors to boost perceived enjoyment of customers (Hassan & Hamari, 2019). Rewards giving is a multi-dimensional construct that includes two dimensions: tangible rewards and intangible rewards. Tangible rewards contain visible and tangible items like coupons (Seaborn & Fels, 2015), while intangible rewards refer to virtual items (Yoon et al., 2015). According to Choi et al. (2014), rewards can raise the user's sense of enjoyment. It has been found that hedonic features in the form of rewards are often to be used in schools to encourage students to eat healthy.

Social interaction is a term used to describe how customers view their online interactions with other people (Chiu et al., 2006). Rewards and other game-like elements can stimulate greater social activities (Hamari & Koivisto, 2013). Rewards are critical to enhance communication, sharing and collaboration, with other people in a learning platform (Simões et al., 2013). Consumers' social interactions are encouraged with the rewards (Rodrigues et al., 2016). In the area of social commerce, researchers have found that badges play a crucial role in encouraging customer social interaction (Hamari, 2013).

Human-computer interaction represents the interaction among users and systems. Game elements are fundamental in this interaction (Liu et al., 2017). Moreover, interaction provides positive feedback for users (Loock et al., 2013; Suh et al., 2018). Visualizing users' gains is related to informative feedback through levels and badges in the information system (Suh & Wagner, 2017) and visibility of success is really a core output stream for user interaction. Interactivity involving two-way conversation among users and the site has a favourable effect on e-tailing service by giving feedback to the users (Yoo et al., 2010). The findings indicate that the perceived interactivity of a mobile application affects consumers' views and purchase intentions (Park & Yoo, 2020).

2.2. Gamification Features and Mindfulness

Gamification, which incorporates game design aspects into non-game environments, increases motivation and alters behaviour, so improving one's health and well-being (Di Bitonto et al., 2014). Gamification has a positive effect on health and well-being; it is particularly important for health behaviour change (Johnson et al., 2016) and gamification, a relatively new paradigm for human engagement, is used to influence and motivate individuals to engage in marketing and health-related activities (Bunchball, 2010).

Motivation is separated into two intrinsic and extrinsic forms. Extrinsic motivation examines external rewards including such money or prestige to the engagement of behaviour or interests (Zichermann & Linder, 2010) On the other hand, intrinsic motivation is related to feedback and goal setting through point scores, levels, badges, challenges, and competitions. These are connected to recognition, comparison through leaderboards, social feedback, supports, communication functions, autonomy, which supports customizable avatars and environments, user choice in activities and targets or narratives critical for emotional and value-based rationales (Seaborn & Fels, 2015). Headspace developers preferred to use gamification to improve user motivation and provide experience as rewarding and enjoyable (Teixes Argilés, 2017).

One of the challenges for gamification is how to personalize the experience directly relevant to the individual (Stockings et al., 2016). The findings pinpoint that young people could not always positively respond to critical feedback, and their positive feedback does not always mean increasing engagement or use (Christie et al., 2019). On the other hand, games have purposes such as increasing engagement and providing enjoyment. In this direction, the use of gamification in health-related issues is due to motivation (Deterding, 2015). Rewards to improve exercise are associated with points and achievements (Hamari & Koivisto, 2015). Points, badges, and leaderboards improve physical activity when pairs work cooperatively rather than competitively (Chen & Pu, 2014). Medals, badges, points, and their combination with leaderboards contributed to empowerment and improved physical activity; thus, patients decreased healthcare usage (Allam et al., 2015). Rewards and feedback are usually preferred for eHealth (Sardi et al., 2017). Virtual characters were significant for gamified mobile attention-bias modification training. It is stated that rewards that are in the form of points reduce stress and anxiety (Dennis & O'Toole, 2014).

Social interaction positively affects mental health (Hall et al., 2013) and physical activity (Hamari & Koivisto, 2015; Maher et al., 2015). It is stated that social interaction supported the university students' experience with motivation and fun for decreasing alcohol consumption (Boendermaker et al., 2015). It is proved that levels, rewards, avatars and narrative positively affected children's eating of vegetables and fruits (Jones et al., 2014).

Recognition and social norms are significant for self-determination theory, and this theory is related to social influence (Hamari & Koivisto, 2015). Gamification can be implemented alone or with social support and encourages physical activities thus, decreasing healthcare utilization (Allam et al., 2015). Gamification has a positive effect on people's desire to exercise; at this point, the role of social influence has proven to be great (Hamari & Koivisto, 2015). Using gamification features instead of exercising alone may motivate people more. The point here is the entertainment dimension; besides, sharing the same target with friends, cooperating and competing are critical (Chen & Pu, 2014). Personalities, abilities, basic motivation, and users' information levels are significant for gamification's effectiveness (Hall et al., 2013). Gamification provides people with internal motivation, increases accessibility to mobile technology and ensures cost-benefit efficiency by improving existing systems (Johnson et al., 2016). The results indicated that gamification is significant for increasing engagement with badges, progress, and points, making learning skills more fun in health treatment (Christie et al., 2019). The mHealth application contains gamification mechanics, contributing to patient

self-management (Cafazzo et al., 2012; Miller et al., 2016). The mindfulness-based gamification approach improves awareness of risks, user perception, leading behaviours and preventing risk with simple-to-use and easy-to-learn support awareness, role modelling and empowerment. Besides, gamification on mindfulness meditation within mHealth application decrease the depression level (Fish & Saul, 2019).

3. METHODOLOGY

The study is exploratory in nature, with the objective of exploring the effects of rewards as an element of gamification on the purchase intention of mobile mindfulness applications. The rationale behind embracing a qualitative research approach is that it allows for more openness in examining a phenomenon (Carson et al., 2001).

3.1. Sampling and Data Collection

The researchers conducted 19 in-depth interviews and a focus group. Hence, multiple data collection methods were used to enhance the objectivity and to increase the construct validity. When selecting the interviewees, and focus group participants, the attention is paid to the purposive sampling coupled with convenience sampling of mindfulness mobile application users: from different ages; with different genders (see Table 1). The duration of semi-structured interviews ranged between 25 and 45 minutes and was conducted in April 2022 via telephone in Turkey. The interviews were tape-recorded with the permission of all interviewees, and the recordings were later transcribed verbatim into documents for data analysis. After the 19th interview, it is observed that new concepts do not appear anymore from each interview based upon the grounded theory approach. Therefore, regarding the saturation point, interviews are finalized after the 19th interview.

The focus group study was performed through Zoom Cloud Meetings and lasted around one hour. Eight mindfulness mobile application users participated in the focus group in which gender and age heterogeneity was taken into consideration in the sampling process (see Table 1). The meeting was recorded upon the consent of the participants. During the semi-structured interviews and the focus group study, the participants were asked questions about their perceptions towards rewards in mindfulness mobile applications. The questions asked mainly to concentrate on how getting/sharing/visibility of rewards make them feel, the benefits sought from getting/sharing/visibility of rewards, and whether rewards are significant to their intention to buy the mobile applications. To establish consistency, the first author conducted the interviews and the focus group. The participants were informed that it is critical to convey their positive and negative opinions properly.

Table 1: Demographics of the Participants

Demographics						
Gender	In-depth Interview	Age	n	Focus Group	Age	n
Female	11	22-25	3	5	22-25	2
		26-35	4			
		36-47	2		26-35	1
		48-54	2		48-54	2
Male	8	22-25	3	3	26-32	2
		26-32	3			
		33-38	2		33-38	1

As summarized in Table 1, 11 of the interviewees are female and of different ages ranging from 22 to 54. On the other hand, 8 male respondents participated in the in depth-interviews. The gender distribution of focus group participants is five females and three males, where the youngest and the oldest male participants are 26 and 38, respectively.

3.2. Data Analysis

Data is analysed with content analysis procedures (K. H. Krippendorff, 2013), adopting an inductive content analysis approach (Elo & Kyngäs, 2008). The analysis involved multiple stages. Interview data and focus group data are compiled into separate Excel files and read several times by the researchers. Two researchers independently coded the transcribed data using open coding, where the notes and headings are written in separate columns of the Excel files while reading through the data. Tentative headings are generated according to the meaning derived from the data. The headings are gathered on coding sheets, and a list of categories (first-order themes) is created and aggregated under higher-order headings (second-order themes). Two authors coded the first six interviews and the first two focus group participants based on the coding protocol separately. Then they coded the remaining part of the data together through discussions. Discrepancies between coding's were discussed, and the coding protocol was revised until a 100% agreement was reached. According to Krippendorff alpha, the intercoder reliability is 0.955 for focus group and 0.99 for interview analysis, respectively (Freelon, 2010, 2013; K. Krippendorff, 2011).

To establish internal validity, the emphasis was on the consistency and significance of the results. Following data analysis, the results were sent to the interviewees and participants of focus group study by e-mail and were verified by the respondents. Further, the findings were also compared with similar research findings in the pertinent literature. These procedures enhance the validity and reliability of the research findings.

4. FINDINGS

Findings of the content analysis are framed on getting/sharing/visibility of rewards in mindfulness-based mobile applications. As depicted in Table 2, findings regarding in-depth interviews and the focus group study reveal the perceptions of respondents on getting rewards in mindfulness-based mobile applications. Respondents perceive that getting rewards is ``fun/enjoyable`` with the highest frequencies both in in-depth interviews (f=46), and the focus group study (f=36). Besides, getting rewards in the application make them happy ($f_{in\text{-}depth}$=28; f_{focus}=10); they feel ``motivated`` ($f_{in\text{-}depth}$=16; f_{focus}=16), "good" ($f_{in\text{-}depth}$=21; f_{focus}=4) and feel a ``positive impact`` ($f_{in\text{-}depth}$=12; f_{focus}=13). In-depth interview respondents also find getting rewards as ``exciting`` (f=15), ``important`` (f=14), ``intriguing`` (f=10), as a ``necessity`` (f=6). As one of the respondents indicates:

"Getting rewards indicates enjoyment for me. I feel happy and motivated. Rewards are definitely important." (In-depth interview Participant 1)

Furthermore, focus group participants claim that getting rewards is ``useful`` (f=7) and gives a ``sense of accomplishment`` (f=6) ``. Respondents also stated that ``tangible rewards are important`` (f=6) and "losing a reward feels bad`` (f=4) as depicted in Table 2. The following quotations are provided as exemplars of the perceptions of focus group study participants:

"Rewards are about a sense of achievement. I think that rewards provide happiness and motivation. But most importantly, the rewards are definitely enjoyable. I think this is the most important one." (Focus Group Participant 5)

"However, losing a reward might make young people particularly unhappy. Losing might be unpleasant, while winning can be enjoyable." (Focus Group Participant 8)

Table 2: Users` Perceptions on the Getting Rewards

Interview		**Focus Group**	
1st Order Theme	f	1st Order Theme	f
Fun/Enjoyable	46	Fun/Enjoyable	36
Making Happy	28	Making Happy	10
Motivating	16	Motivating	16
Positive impact	12	Positive Impact	13
Good (I like it)	21	Good (I like it)	4
Exciting	15	Losing a reward feels bad	4
Necessity	6	Usefulness	7
Intriguing	10	Sense of achievement	6
Important	14	Tangible rewards are important	6

Table 3 summarizes the users` perceptions and their frequency distribution on sharing rewards. Two common second order themes are obtained from in-depth interview and focus group study analyses which are social interaction ($f_{in\text{-}depth}$=82; f_{focus}=60) and emotions ($f_{in\text{-}depth}$=43; f_{focus}=37). Social interaction is the most frequently emerged theme for both analyses, in which participants stated that ``sharing is important`` ($f_{in\text{-}depth}$=20; f_{focus}=17), and sharing rewards help them socialize with friends and new people (``socialization with friends`` $f_{in\text{-}depth}$=38 f_{focus}=23; "socialization with new people" $f_{in\text{-}depth}$=9; f_{focus}=8) and leads to a feeling of "competition" ($f_{in\text{-}depth}$=5; f_{focus}=2). Social interaction theme emerged from in-depth interview analysis also embodies perceptions of ``being popular among friends`` (f=4) and ``supporting friends``(f=6).

As one of the respondents indicates:

"The most important thing to me is sharing. I can also socialize by sharing rewards with my friends." (In-depth interview Participant 4)

Regarding both interview and focus group results, the most frequent first order themes under emotions category are "happiness" ($f_{in\text{-}depth}$=8; f_{focus}=17) and "feeling good" ($f_{in\text{-}depth}$=19; f_{focus}=5). According to the samples, ``fun/enjoyable`` ($f_{in\text{-}depth}$=6), ``exciting`` ($f_{in\text{-}depth}$=10), ``motivating`` (f_{focus}=9), ``positive impact`` (f_{focus}=6) are the other themes mentioned under emotions category.

As the respondents indicate:

"I feel good when I share a reward. I believe that sharing is very important and exciting. Sharing rewards with people I know is a great happiness. We live in a digital era now, and we can think of reward sharing as a social activity." (In-depth interview Participant 6)

"I would rather share my rewards with my friends. This makes me extremely happy since it allows me to interact with my friends. In this manner, my friends and I are both motivated. I believe that it is important to share." (Focus Group Participant 4)

In-depth interview analysis revealed another second order theme which didn't emerge in the focus group study analysis which is technological innovation. This category contains two attributes that are ``digitalization`` (f=6), and ``related to technology`` (f=4).

As mentioned by one of the participants:

"In my opinion, sharing of rewards through apps is strictly related to digitalization." (In-depth interview Participant 7)

Table 3: Users` Perceptions on Sharing Rewards

In-depth Interview			**Focus Group**		
2nd Order Theme	1st Order Theme	f	2nd Order Theme	1st Order Theme	f
Emotions (Total Frequency= 43)	Feeling Good	19	Emotions (Total Frequency= 37)	Feeling Good	5
	Happiness	8		Happiness	17
	Fun/Enjoyable	6		Motivating	9
	Exciting	10		Positive impact	6
Social Interaction (Total Frequency= 82)	Sharing is important	20	Social Interaction (Total Frequency= 60)	Sharing is important	17
	Being popular among friends	4		Cooperation	10
	Supporting friends	6		Socialization with friends	23
	Socialization with friends	38			
	Socialization with new people	9		Socialization with new people	8
	Competition	5		Competition	2
Technological Innovation (Total Frequency= 10)	Digitalization	6			
	Related to technology	4			

Table 4 displays the users` perceptions on visibility of the rewards. Four prevalent second order themes are discovered through in-depth interview and focus group research analyses which are "emotions" ($f_{in\text{-}depth}$=36; f_{focus}=29), "human-computer interaction" ($f_{in\text{-}depth}$=88; f_{focus}=58), "analysis/tracking" ($f_{in\text{-}depth}$=10; f_{focus}=10), "importance to user" ($f_{in\text{-}depth}$=20; f_{focus}=15).

Emotions is the most commonly cited subject for improvement in both analyses, in which respondents stated that "feel good" ($f_{in\text{-}depth}$=6; f_{focus}=5), "feel motivated" ($f_{in\text{-}depth}$=5; f_{focus}=5), "like to see rewards" ($f_{in\text{-}depth}$=19; f_{focus}=12), "feel approved" ($f_{in\text{-}depth}$=6; f_{focus}=7).

Human-computer interaction contains "nice to interact with the application" ($f_{in\text{-}depth}$=21; f_{focus}=13), "necessity of getting up-to-date information" ($f_{in\text{-}depth}$=32; f_{focus}=8), "necessity of viewing rewards instantly" ($f_{in\text{-}depth}$=15; f_{focus}=26), "digital trend" ($f_{in\text{-}depth}$=20; f_{focus}=11).

Analysis/Tracking theme encapsulates "to be able to analyze the competitive situation" ($f_{in\text{-}depth}$=6; f_{focus}=10). However, in-depth interview analysis also embodies `` tracking competitors `` (f=4).

The importance of the visibility of the rewards to participants is determined as: "important" ($f_{in\text{-}depth}$=9; f_{focus}=5), "not so important" ($f_{in\text{-}depth}$=1; f_{focus}=4), "more important for young generation" ($f_{in\text{-}depth}$=5; f_{focus}=6). This theme in-depth interview analysis also pinpoints a new importance ranking which is `` not the most important thing `` (f=5).

As one of the respondents discussed:

"We now live in a digital age, and we are in constant communication with applications. This is a trend. In this sense, I should be able to access my current information and rewards. Seeing my rewards is very important to me." (In-depth interview Participant 19)

As one of the participants mentioned:

"I have a competitive personality, and I want to see my rewards instantly. I love seeing my rewards; this situation motivates me. If I cannot see instantly what rewards I have, I do not use that application. When I see my rewards, I think that the application approved me, making me feel good." (Focus Group Participant 7)

Table 4: Users` Perceptions on Visibility of the Rewards

In-depth Interview			**Focus Group**		
2nd Order Theme	1st Order Theme	f	2nd Order Theme	1st Order Theme	f
Emotions (Total Frequency= 36)	Feel Good	6	Emotions (Total Frequency= 29)	Feel Good	5
	Feel Motivated	5		Feel Motivated	5
	Like to see rewards	19		Like to see rewards	12
	Feel approved	6		Feel approved	7
Human-Computer Interaction (Total Frequency= 88)	Nice to interact with the application	21	Human-Computer Interaction (Total Frequency= 58)	Nice to interact with the application	13
	Necessity of getting up-to-date information	32		Necessity of getting up-to-date information	8
	Necessity of viewing rewards instantly	15		Necessity of viewing rewards instantly	26
	Digital trend	20		Digital trend	11
Analysis/Tracking (Total Frequency= 10)	Tracking competitors	4	Analysis/Tracking (Total Frequency= 10)	To be able to analyze the competitive situation	10
	To be able to analyze the competitive situation	6			
Importance to User (Total Frequency= 20)	Important	9	Importance to User (Total Frequency= 15)	Important	5
	Not so important	1		Not so important	4
	More important for young generation	5		More important for young generation	6
	Not the most important thing	5			

In Table 5 the impact of rewards on purchase intention is presented. Four prevalent second order themes are explored through in-depth interview and focus group research analyses which are "emotions" ($f_{in\text{-}depth}$=77; f_{focus}=107), "social interaction" ($f_{in\text{-}depth}$=69; f_{focus}=104), "human-computer interaction" ($f_{in\text{-}depth}$=59; f_{focus}=69), "competition" ($f_{in\text{-}depth}$=15) and "benefit in app" (f_{focus} =15).

Emotions are mentioned as "enjoyable/fun" ($f_{in\text{-}depth}$=57; f_{focus}=45), and "happiness" ($f_{in\text{-}depth}$=20; f_{focus}=37). "Intriguing" (f=10) and "feeling approved" (f=15) are two different first order themes obtained only from focus group analysis that appears distinctive within this theme.

Within the "social interaction" theme respondents mentioned that for them sharing is important in terms of rewards and sharing rewards help them to socialize both with their friends and with new people and encourage them to cooperate. ("sharing is important" ($f_{in\text{-}depth}$=18; f_{focus}=34), "socialization with friends" ($f_{in\text{-}depth}$=19; f_{focus}=38), "socialization with new people" ($f_{in\text{-}depth}$=10; f_{focus}=10), "cooperation" ($f_{in\text{-}depth}$=22; f_{focus}=22)).

The third second order theme emerged from the analysis is human-computer interaction. This theme is comprised of first order themes: "necessity of getting up-to-date information" ($f_{in\text{-}depth}$=33; f_{focus}=44), ``necessity of viewing rewards instantly" ($f_{in\text{-}depth}$=17; f_{focus}=25). Respondents of in-depth interview also stated that rewards are perceived as a "digital trend" (f=9).

As one of the respondents discussed:

"We have seen that digitalization is an important trend, especially during the pandemic period. In a world where everything is rapidly evolving and changing, it is important for me to see my rewards immediately. I must consistently get current information from the system. Sharing the rewards is also essential. It provides collaboration. However, the most essential factor is the enjoyment and visibility of rewards." (In-depth Interview Participant 18)

Table 5. How Rewards Influence Purchase Intention

In-depth Interview			**Focus Group**		
2nd Order Theme Interview	1st Order Theme	f	2nd Order Theme Focus Group	1st Order Theme	f
Emotions (Total Frequency= 77)	Enjoyable/Fun	57	Emotions (Total Frequency= 107)	Enjoyable/Fun	45
	Happiness	20		Happiness	37
				Intriguing	10
				Feel approved	15
Social Interaction (Total Frequency= 69)	Sharing is important	18	Social Interaction (Total Frequency= 104)	Sharing is important	34
	Socialization with friends	19		Socialization with friends	38
	Socialization with new people	10		Socialization with new people	10
	Cooperation	22		Cooperation	22
Human-Computer Interaction	Necessity of getting up-to-date information.	33	Human-Computer	Necessity of getting up-to-date information	44

(59)	Necessity of viewing rewards instantly	17	Interaction (Total Frequency= 69)	Necessity of viewing rewards instantly	25
	Digital Trend	9			
Competition (Total Frequency= 15)	Negative Impact of Competition	6	Benefit in app (Total Frequency= 15)	The rewards should provide benefits in the application	15
	Positive Impact of Competition	5			
	Competition is not the most important thing	4			

Competition as the last second order theme emerged as a result of the content analysis of in-depth interviews involves `` negative impact of competition `` (f=6), `` positive impact of competition `` (f=5), and ``competition is not the most important thing`` (f=4) themes. In a similar vein, Benefit in application is obtained as a distinctive second order theme from focus group analysis. Participants claim that ``the rewards should provide ease on the application`` (f=15).

As one of the respondents mentioned:

"I am above the age of 50. Having fun and sharing is important to me. It is enjoyable when the rewards provide cooperation and communication with individuals I know. If I enjoy and socialize with my friends, I want to purchase the application in this way." (Focus Group Participant 1)

5. DISCUSSION AND FUTURE RESEARCH DIRECTIONS

Steady development of digitalization is seen throughout the fields, including mindfulness applications. Likewise, the fact that the rewards used in gamification contribute to several disciplines is significant in the context of working in an essential field such as mindfulness, which can contribute to the quality of life. Previous research highlights the importance of enjoyment in online purchase intention (Harwood & Garry, 2015; Mullins & Sabherwal, 2020; Y. Xu et al., 2020) and the contribution of enjoyment to customer satisfaction (Y. Xu et al., 2020). Gamification addresses consumers' fundamental psychological needs, which is critical for increasing enjoyment in gaming, as enjoyment in gameplay is the primary indicator of online purchase intention (Xi & Hamari, 2020). Consistent with the relevant literature, our findings validated that enjoyment is a critical factor that is associated with getting rewards in mindfulness based mobile applications with gamification features. Besides, sharing rewards and the visibility of the rewards are found to embody social interaction patterns of users like socializing with friends and new people. The respondents place an emphasis on sharing and like to cooperate within the applications. It is observed that women between the ages of 36 and 54 concentrate more on sharing rewards. This finding is similar to the study conducted by Hamari (2013) and Raman (2020). The extant research claim that rewards and badges have a favourable effect on impulse buying through the mediation of perceived enjoyment and social interaction (Zhang *et al.*, 2021). In an e-commerce platform, gamification influences behavioural intention via perceived enjoyment and social interaction.

Current study findings reveal the interactivity dimension mentioned in the extant literature as human-computer interaction which focuses on the relationship between users and the application. Interactivity has a great impact on purchase intention (Kowalczuk et al., 2021; Park & Yoo, 2020; Pillai et al., 2020) and this is in line with our findings. Our participants between the ages of 36 and 54 stated that the visibility of the rewards on the application does not have a significant impact on their purchase intention. On the other hand, individuals between the ages of 22 and 35 claim the opposite and emphasize the significance of reward visibility. Furthermore, these participants indicated that instant information about their rewards would influence their purchasing intention. It is obvious that there is an age-related variation in the relevance of the rewards' visibility, despite the fact that all participants agreed that the rewards are enjoyable, and that sharing is important. While the most significant dimension after enjoyment for young participants is the visibility of the rewards, the most crucial dimension after enjoyment for the 36-54 age group is rewards sharing.

The impact of competition on enjoyment and purchase intention has not been demonstrated for online shopping platforms (Y. Xu et al., 2020). In our research, participants have diverse perspectives on the competition. Although the men between the ages of 22-35 claimed that competition is essential in a variety of fields, they noted that it is not particularly significant in the field of mindfulness applications. Therefore, it is thought that competition may not have a significant effect on their intention to purchase meditation practices, and which demonstrates that it is consistent with the literature.

Consistent findings were acquired as a consequence of in-depth interviews and focus group studies. It is considered that this circumstance is related to the homogeneity of the samples. On the other hand, there are some slight discrepancies because of the detailed analysis of both data collection methods. One of the most highlighted themes in the focus group research is the importance of sharing the rewards. In the focus group research, it is notable that the participants claimed importance for socialization rather than individuality. On the other hand, the importance of the visibility of the rewards and human-computer interaction was emphasized more in in-depth interviews. It is assumed that this finding emerged since the number of participants aged between 22-35 in the in-depth interviews were more than the number of participants in the focus group research which belongs to the same age range.

Rewards, in general, elicit emotions of happiness and enjoyment, encourage social and human-computer interaction, and, as a response, are said to influence respondents' intentions to buy the mindfulness mobile application. Hence, further studies should empirically test the mediation effects of enjoyment, social interaction, and human-computer interaction on the relationship between rewards and intention to buy mindfulness mobile applications. Consequently, this study was conducted in Turkey with a limited number of participants. It is suggested that further research can be undertaken in different countries with larger sample sizes.

This study is expected to contribute to the literature on mobile mindfulness applications and gamification. Furthermore, it is anticipated that a better customer experience would be offered by studying the user's purchasing intention with this research. It has been stated that the rewards employed in the context of gamification contribute to a variety of areas, and the rewards provided to users in mindfulness applications, the sharing of rewards, and the visibility of rewards will benefit both users and companies.

6. CONCLUSION

In accordance with the growing interest in gamification and well-being mobile applications, the impacts of gamification on mindfulness mobile applications constitutes an encouraging field of inquiry attracting a growing number of researchers and practitioners. It is suggested that the rewards, which are essential components of gamification, have a substantial impact on the purchase intention of mindfulness mobile applications. However, both conceptual and empirical studies on how these rewards trigger purchase intention are still at the introductory stage and need to be improved in the related stream of research. To address this gap in the literature, the present study strives to investigate how gamification components, getting/sharing/visibility of rewards in particular, used in mindfulness-based mobile applications influence the purchase intention.

Findings reveal that getting rewards in mindfulness mobile applications is perceived as fun and enjoyable and makes users happy. They feel motivated since they really like to get rewards. Sharing rewards elicit emotions like happiness, feeling good, excitement, motivation, and fun. The visibility of rewards for the users are important as they like to see their rewards which make them feel approved and feel good.

Sharing rewards also encapsulates other dimensions like social interaction in which the importance of sharing, socializing with friends and with new people are the most mentioned themes. Besides, the visibility of the rewards in the application is also important for the users and it entails human computer interaction by fulfilling the need of viewing rewards instantly and by providing up-to-date information so that users can track their position and the rivals position and make a competitive analysis. Users find it nice to interact with the application and claim that this interaction is a digital trend. Rewards in general arise feelings of enjoyment and happiness, enhance social and human-computer interaction which in turn are claimed to have an influence on purchase intention of mindfulness mobile application by the respondents.

The contribution of the current study to on marketing literature in general and the literature on consumer behaviour in particular is three-fold. First, this research expands and deepens, in a theoretically integrated manner, the knowledge of rewards, which is a crucial component of gamification. Second, it reveals the distinct effects of giving, sharing, and the visibility of incentives on the intention to buy, which have mostly been disregarded by earlier studies. Third, it contributes to the conceptualization and operationalization efforts of the purchase intentions of mindfulness mobile applications within the context of gamification by extending the current knowledge on the effects of rewards with a focus on the mindfulness mobile application purchase intention. In a similar fashion, it is anticipated that the findings will advance future research by enhancing the elaboration of gamification components that will improve consumer experience.

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