

**The effect of gamification on Purchase Intention with mediating the role of brand reputation (Case Study of Central-Carrefour Hypermarket for on-spot appliances' loans in Tbilisi, Georgia)\***

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### **Abstract**

Purpose of this research is investigating the effect of gamification on the intention of buying on-spot appliances' loans with mediating the role of brand reputation (Case Study of Central-Carrefour Hypermarket in Tbilisi, Georgia). The present study is an applied research and in terms of method is also a descriptive survey. The statistical population of this research is the customers of Carrefour central hypermarket store in Tbilisi, Georgia, whose number is unknown and therefore the sample size is 384 people and the sampling method is available. The data collection tool is a standard 15-item questionnaire (in addition to demographics). Cronbach's alpha was used for reliability and convergent and divergent validity was used for validity. Also, k-s test and structural equations and path analysis with PLS and SPSS software were used. In this study, four hypotheses were examined and all hypotheses were confirmed. Therefore, it can be concluded that this store can increase effectiveness in purchase intention of home appliances in installments at the store through game-making techniques and relying on the brand's reputation.

**Key words:** *Gamification, Point of Sales, Purchase Intention, Brand reputation*

### **1. Introduction**

When you enter to some modern hypermarkets or magazines you always may face the concept of 'gamification' by which we are referring to any game online or offline in the market to produce a good memory for the customer and create an emotional bond hoping that it shall affect his

purchase intention or overall experience. The concept of gamification can now be seen in many areas of business and products, social education, medicine, the treatment of mental disorders, the treatment of amnesia or even military training, and what they all have in common is trying to maximize learning and engagement and gain the user's trust with the product or concept accordingly. Meloni and Gruener (2012). In fact, gamification can be used to make learning interesting, repetitive processes or unattractive tasks for non-game purposes, and this feature can be considered the most important reason for learning this new field in various fields (Sebastian et al., 2012) every day we see advertisements designed in the virtual and real world to attract the attention of the audience. At first glance, we may consider advertising to be trivial; But the repetition and persistence of advertisements surrenders the mind and leads the audience to buy the desired product (Moghimi, 2022). Today, with the development of digital tools and the advancement of technology, many companies have turned to advertising gaming. The world's largest companies such as Google, Coca-Cola, McDonald, etc. run many of their advertising campaigns using digital technology and based on entertainment. Park et al (2014) Creating an attractive memory of dealing with the brand in the mind of the customer can have a significant impact on sales of products or services (Moghimi, 2022). Gamification refers to the gamification process of advertising and sales processes. Gamification The use of game-like characteristics and thinking in areas that are not game-specific (Young et al., 2017). Gamification has been integrated with a number of trends that change consumers' enthusiasm and involvement in learning, and has facilitated access to consumer needs in order to choose a brand. One of the newest solutions is to use game-related concepts in the brand attitude. The use of this concept is expanding day by day. The advantage of games in advertising is that it can determine the intentions of consumers and determine their attitudes (Young et al., 2017). In this research, gamification is defined as a system of feedback that by testing its elements can measure the intentions and attitudes of consumers and facilitate and support all users or change their attitudes (Zicherman et al., 2012). Have been defined as the art and science of receiving daily customer interactions and then creating games to help achieve business goals (Zicherman et al., 2012). On the other hand, consumers' attitudes toward the brand have been particularly popular with marketers. Attitudes are necessarily our inner tendencies in relation to things. An attitude indicates a desire or unwillingness for something. Attitudes have three basic elements: sensory, cognitive, and behavioral. The sensory element is related to our desire or feelings about a subject. The cognitive element refers to our beliefs about a subject. The behavioral element pays attention to our actions on that subject. Attitude towards the brand is defined as the overall evaluative judgment of consumers of a brand based on beliefs about the brand. Such beliefs are related to product-related attitudes, such as practical and experimental benefits (Moghimi, Dastouri. 2022). On the other hand, brand reputation and brand reputation are intangible and very important assets of any company or firm. Researchers have found that brand reputation increases people's desire to buy products, both for the first time and for repurchase. Brand reputation is a category. Which helps customers to choose goods and services from other goods and services and the company can have a say in the competitive market (Moghimi, Abramishvili, 2021). Due to the fact that some people do not have the power to buy home appliances in cash, and on the other hand, due to the competitive environment between different brands, some stores have offered these products in installments. In this study, we intend

to answer the basic question that what is the effect of gamification on the intention of buying on-spot appliances' loans with mediating the role of brand reputation?

## 2. Literature review

The authors of this research had few surveys (Moghimi, 2022. Moghimi and Dastouri 2022. Moghimi and Dastouri 2023) about different aspects of purchase intention and customers' loyalty. It was clearly proved and published that personality features and emotional affects are heavily affecting the customers and consumers. These bonds were studied very carefully in the literature and gamification as a proven tool to create emotional bond is also one of them. Young et al. (2017) studied the effect of gamification in advertising on brand participation intention and attitude. This study presents a model that examines the effects of gamification on customers' intention to participate in the production process and their attitude towards the brand. Using a quantitative method, the results of empirical support for perceived usefulness and perceived pleasure as predictors of brand interaction and attitude were identified. Perceived ease of use had no effect on brand attitude. In addition, perceived social impact is not relevant. Anvar Khan et al. (2015) studied the effect of gamification on consumer purchase intention. The study was conducted in the clothing industry in Pakistan. Consumers applied their opinions at each stage of the game, which the organization also used and repaired its products. The results showed that gamification has a significant effect on consumer purchase intentions. Huotari et all (2012) and Olsen (2015) studied the impact of gamification on marketing services. The results of their research conducted in Sweden showed a positive effect of usefulness as well as the normative and social effects of game-making in marketing services. (Moghimi, Dastouri (2023 studied the effect of Personality traits on customer loyalty. This research was conducted in Turkey with influencers' behavior affecting purchase intention and customer loyalty. The results of the study show that kind behavior and gamification has a positive effect on attitudinal purchase intention in customer decisions, which in general has increased their satisfaction and loyalty. This was also confirmed by Taherfar 2013. Deterding et all (2017) examined the impact of gamification on customer loyalty. The purpose of this research is to use online technologies in order to create gaming software in order to gain the trust of customers. The results showed that gamification has a significant effect on trust, communication, commitment and conflict resolution. Kheiri and Hosseinabadi (2016) investigated the effect of attitude towards game-making in marketing on the frequent use of consumers in social networks by considering the moderating role of feedback variables. The aim of this study was to investigate the effect of attitude towards game-making in marketing on the frequent use of consumers in social networks by considering the moderating role of feedback. The method of this research is descriptive survey and its statistical population is all people who use game applications. In this regard, in order to collect the data needed to measure the research variables, a questionnaire was used, which due to the unlimited volume of the population online in social networks by stratified random sampling method available to 280 people from The statistical population was analyzed and then all data were analyzed using SPSS and SmartPLS software. Finally, the research findings showed that attitude has a positive and significant effect on repeated use.

## 3. Hypotheses and conceptual model of research



Figure 1 - Conceptual model of research

**The main hypothesis:**

Gamification has positive impact on the intention of buying on-spot appliances' loans by mediating role of brand reputation.

**Sub hypothesizes:**

Gamification has positive impact on brand reputation.

Brand reputation has positive impact on the intention of buying on-spot appliances' loans.

Gamification has positive impact on the intention of buying on-spot appliances' loans.

**4. Research Methods**

The present study is an applied research and in terms of method is also a descriptive survey. The statistical population of this research is the customers of Carrefour central hypermarket store in Tbilisi, Georgia, whose number is unknown and therefore the sample size is 384 people and the sampling method is available. The data collection tool is a standard 15-item questionnaire. Cronbach's alpha was used for reliability and convergent and divergent validity was used for validity. Also, k-s test and structural equations and path analysis with pls and spss software were used.

**5. Data analysis**

**Kolmogorov-Smirnov test for normality of research variables**

Table 1. K-S Test

<b>Variable</b>	<b>sig</b>	<b>alpha</b>	<b>result</b>
Gamification	.0334	./05	It is not normal
Brand reputation	.0365	./05	It is not normal

Buying on-spot appliances' loans	.0411	.05	It is not normal
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Considering that the significance level of Kolmogorov-Smirnov test in the above table, which is less than 0.05 for the research variables, it is concluded that the distribution of the above variables was significantly different from the normal distribution. Therefore, we conclude that the distribution of research variables was not normal. Due to the fact that the research variables have an abnormal distribution, so PLS software has been used to examine the model variables.

❖ *Reliability check*

Table 2: Cronbach's alpha of research variables

Variable	Cronbach's alpha	Variable status
Gamification	0.799	Acceptable
Brand reputation	0.792	Acceptable
Buying on-spot appliances' loans	0.801	Acceptable

Since all values are higher than 0.7, Cronbach's alpha of the research variables is confirmed.

❖ *Validity check(Convergent and divergent validity)*

Table 3: Convergent validity table

Structure	Gamification	Brand reputation	buying on-spot appliances' loans
AVE	0.919	0.942	0.894

According to the AVE table, all structures are larger than 0.5 As a result, the convergent validity of the model and the appropriateness of the fit of the measurement models are confirmed.

Table 4: Divergent validity of research variables

	Gamification	Brand reputation	Buying on-spot appliances' loans
Gamification	0/789		
Brand Reputation	0/698	0/902	
Buying on-spot appliances' loans	0/700	0/866	0/665

In divergent validity, the coefficients between the two variables in the column must be less than the square of the coefficient of that variable in order to have validity in terms of divergence. According to the values, it is in a good position in terms of divergent validity.

❖ Assumption analysis and model fit

The purpose of path analysis is to identify the causality (impact) between the variables of the conceptual model of research. It should be noted that the confirmation or rejection of hypotheses (relationships) is determined in a meaningful way. In other words, if the significance number is greater than 1.96 or less than -1.96, the hypothesis is confirmed.

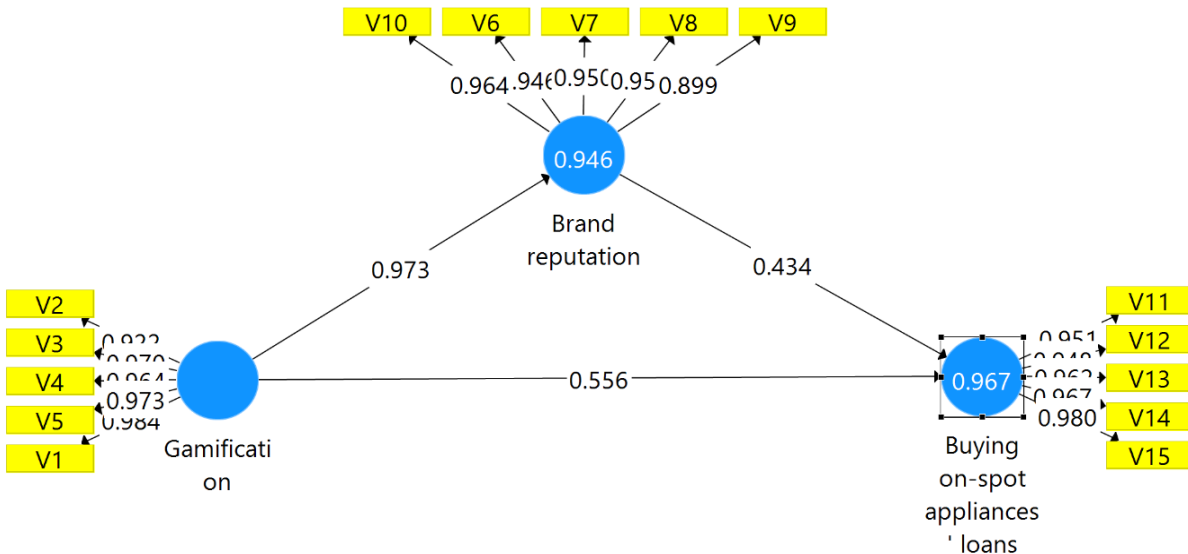


Figure 2 - Standard coefficients

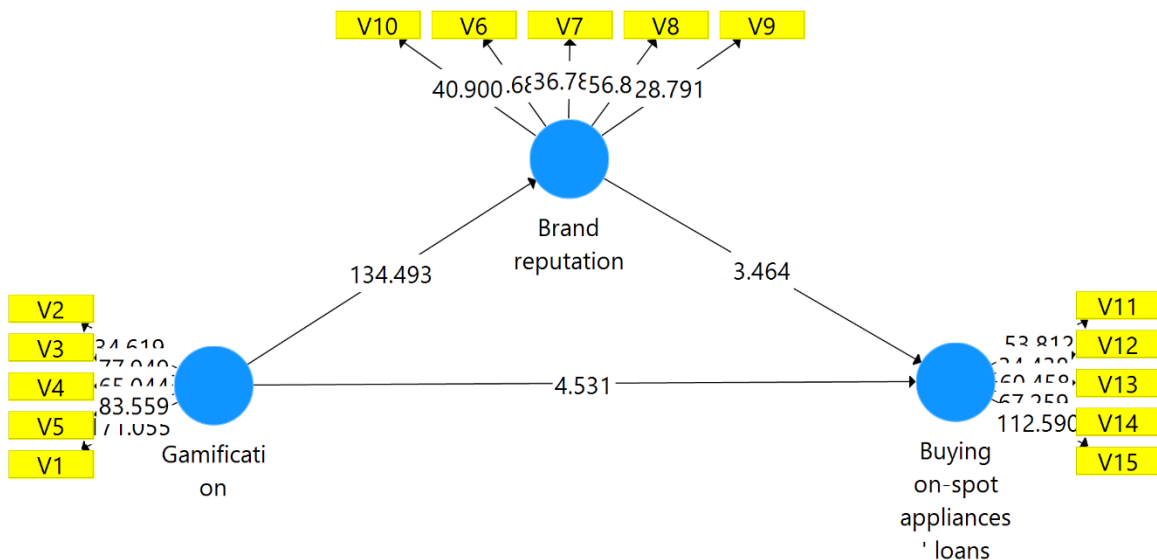


Figure 3 - Significance coefficients

The path coefficient and t-statistic values indicate the intensity of impact and the significance of the relationship for direct hypotheses, respectively. Also, in relation to the main hypothesis, due to the existence of a mediating variable, first the Sobel test was used to examine the significance and also to reject or confirm the hypothesis. Then, the variance inclusion formula (VAF) was used to determine the significant intensity. In relation to the sub-hypotheses, the Z statistic of the Sobel test is greater than 1.96, which indicates that these hypotheses have been confirmed. Also in relation to the inclusion of variance, considering that the amount of variance obtained for the main hypothesis is between 0.8 And 0.8 Therefore, the mediation situation is moderate (less than 2.2, low mediation, between 0.2 and 0.8, and if the degree of significant intensity is more than 1, there is strong mediation).

Table 5: Analysis of the relationship between research variables

hypothesis	Path	$\beta$	t	Conclusion
1	Gamification has positive impact on brand reputation.	./973	134.493	ok
2	Brand reputation has positive impact on the intention of buying on-spot appliances' loans.	./434	3.464	ok
3	Gamification has positive impact on the intention of buying on-spot appliances' loans.	./556	4.531	ok
4	Gamification has positive impact on the intention of buying on-spot appliances' loans by mediating role of brand reputation.	./412	3.606	ok

## 6. Findings

Relying on reputable factors affecting buyers can bring many financial and non-financial benefits to the company to be useful in order to improve the company's performance and profitability and meet the needs of customers and improve the welfare of society. In very brief version it is proven that customers are buying experience and emotional bonds rather than products and services. The main goal of gamification as a marketing tool is also to create such emotional bond and to sell more and increase profits. These customer-centric games have benefits that bring companies closer to their goals. Gamification helps businesses to collect customer data, increase interaction with them, strengthen the company brand and expand their business through this tool. In fact, businesses and marketers can use this fun tool as a bridge to their ultimate goal of attracting an audience, increasing sales and making more profit. Gamification development involves the use of video game elements such as challenges, milestones and rewards as a marketing tool to communicate with customers and achieve the goals and results set by the business.

Gamification does not always mean playing real games, but in relation to content sharing in a broader sense. Gamification makes your marketing strategies fun and engaging, and makes your audience more interested in getting to know your brand and business .In gamification, game



techniques such as competition, player ranking, scoring systems and motivation to attract customers with the main goal of creating brand loyalty, interacting with customers and giving customers a reason to return to the brand and buy products And services are used.

In this study, four hypotheses were examined. Studies showed that all research hypotheses were confirmed. Therefore, it can be concluded that this Hypermarket can effectively increase the desire to buy home appliances in installments at the store through game-making techniques and relying on the brand's reputation. In short version the Hypermarket or similar magazines must create an emotionally attractive environment both online and especially offline in the store with lottery, auto-helpdesk, instore games and competition, loyalty cards, social-networks tags and posts or similar projects to attract and retain customers to actively engage in such a complicated buying process and eventually increase the loyalty and brand equity.

In general it is recommended to:

- ❖ The company tries to maximize learning and engage the user with the product through very user-friendly application software and interactive social networks and Medias.
- ❖ Also, to make learning interesting, repetitive processes or unattractive tasks for non-playful purposes should be eliminated.
- ❖ Stores are advised to use animations in the gamification process in both online and offline market environment especially at point of sales (POS).
- ❖ Gamification should be integrated with a number of trends that change consumers' enthusiasm and involvement in learning, and facilitate access to consumer needs in order to choose a brand.
- ❖ Celebrities in gamification is considered effective according to open-end questions.
- ❖ Third parties involvement and companies that are specialized in the advertising process as game makers can be helpful.
- ❖ Games for all age groups (including not the Niche Market) also is effective.
- ❖ This specific hypermarket (Carrefour) recently (before the study is conducted) had two gamification events and it clearly showed positive results in purchase intention in the other sales' areas (regardless of the research topic).

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