



# Analyzing The Impact of Perceived Playfulness and Price On Brand Loyalty In a Football Game Product: A Case Study Of EA Sports FC Mobile Indonesia

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**Abstract.** This study aims to explore the effect of perceived playfulness and price on brand loyalty among players of EA FC Mobile. With the increasing popularity of mobile gaming, understanding factors that drive brand loyalty is essential for game developers and marketers. A survey will be conducted among EA FC Mobile players to assess their emotional engagement, perceptions of price fairness, and brand loyalty. Previous research has noted positive relationships between emotional value and price respectively to brand loyalty. The discoveries are anticipated to supply experiences for game developers to enhance brand loyalty through emotional engagement and fair pricing strategies.

**Keywords:** brand loyalty, perceived playfulness, price, mobile games, gaming

## 1 Introduction

### 1.1 Background

Gaming has become one of the foremost, popular all-inclusive amusement businesses, with 3.22 billion active gamers in 2023, anticipated to extend to 3.32 billion by the end of 2024. The industry's worth is projected to grow from US\$248.52 billion in 2023 to \$664.96 billion by 2033. Mobile gaming, valued at \$100.96 billion in 2021, is anticipated to reach \$138.63 billion by 2030, although fewer players are spending money despite an increase in mobile gamers to 3 billion in 2022. Mobile games now appeal to all age groups, not just to young people [2].

One of the concepts that can influence gamers is the concept of flow. Flow, a concept introduced by Csikszentmihalyi, describes an immersive state of total concentration and a distorted sense of time [3]. Achieving flow involves balancing manageable challenges and continuous feedback, which enhances feelings of absorption and control [1]. Studies indicate a strong correlation between gaming and flow experiences, with flow being crucial for both enjoyment and sustained engagement [4] [5].

The sports gaming industry, particularly football, is experiencing substantial growth. Revenue from sports games reached US\$7.52 billion in 2022 and is expected to reach \$13.80 billion by 2027. EA FC (formerly FIFA) and Efootball (formerly PES) are

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leading titles in this domain. EA FC has significantly expanded its features and leagues over time but rebranded after ending its partnership with FIFA due to disagreements over licensing fees. Efootball, despite licensing challenges, offers customization and immersive gameplay [6].

The sports games industry is experiencing significant growth, with total revenue projected to reach US\$7.52 billion in 2022 and to expand at a CAGR of 10.46 percent, reaching \$13.80 billion by 2027. Within football games, EA FC stands out, generating an annual revenue of around \$7.4 billion. Football games like EA FC and PES (now Efootball) have become integral to mainstream football culture, receiving widespread endorsement [7]. These games blend realism and fantasy, allowing players to immerse themselves in football scenarios that may not be feasible in physical reality [7] [8].

EA FC, previously known as FIFA, debuted in 1993 and expanded to include global football leagues through licensing agreements with organizations like FIFPRO. Special editions commemorate major football events, enhancing fan engagement. EA continuously innovates, adding features like Career Mode and Ultimate Team. However, EA ended its partnership with FIFA in 2022 due to licensing fee disputes, rebranding the franchise as EA Sports FC.

EA FC Mobile, launched in 2016, mirrors the Ultimate Team mode and includes various gameplay modes and live events. It uses in-game currencies and microtransactions for monetization. Efootball Mobile, EA FC Mobile's main competitor, has more downloads and emphasizes player generosity and promotional campaigns [9].

The purchase of in-game packs and items in EA FC Mobile is a form of microtransaction, a common feature in modern gaming that involves small online payments for additional game credits [10] [11]. This micropayment model is especially popular in free-to-play mobile games, offering flexibility and affordability [12]. The microtransaction model is attractive due to its profit potential [9].

EA FC Mobile faces significant competition from Efootball Mobile, which has over 750 million downloads, surpassing EA FC Mobile by 250 million. Efootball Mobile operates exclusively online and offers modes similar to MyClub and Ultimate Team, allowing players to earn in-game currencies and acquire new players. It also includes a game pass mechanic for player enhancement. However, while EA FC Mobile provides multiple PvP modes like VS Attack, Head-to-Head, and Manager Mode, Efootball Mobile only offers 11 vs. 11 matches in PvP modes. Konami, the publisher of Efootball Mobile, is known for its player generosity, frequently providing free items and running promotional campaigns, such as a celebration campaign for 750 million downloads that offered gamers free items like GPs, coins, and special player cards.

This research aims to address EA's challenge with brand loyalty by examining perceived playfulness and pricing strategies.

## 1.2 Research Problems

Microtransactions, especially those providing in-game advantages, are often viewed negatively by gamers due to fairness concerns [13]. EA faced significant backlash over this model, particularly with *Star Wars: Battlefront II*, leading to public outcry and EA's most downvoted comment on Reddit [14] [15]. Loot boxes in EA FC Mobile, likened to gambling, have also been criticized for encouraging addictive behavior [16]. Despite EA's console gaming success, they lag behind Konami in mobile gaming, and negative views on microtransactions further challenge EA FC Mobile. Addressing these issues is vital for improving brand loyalty and competitiveness.

## 1.3 Research Questions

- o Does perceived playfulness affect EA FC Mobile brand loyalty?
- o Does price affect EA FC Mobile brand loyalty?

## 1.4 Research Objectives

- o To identify the relationship between perceived playfulness and brand loyalty in EA FC Mobile
- o To identify the relationship between price and brand loyalty in EA FC Mobile

# 2 Literature Review

## 2.1 Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) posits that behavioural intentions are influenced by three primary factors: attitude, subjective norms, and perceived behavioural control [17]. This theory is useful for understanding and predicting buying and purchasing behaviour.

Attitude towards a behaviour is formed by associating the object of the behaviour with certain attributes, which can be positive or negative [17]. Beliefs about these attributes are connected to specific outcomes or other related attributes, and humans naturally develop attitudes towards various behaviours.

Subjective norms allude to the perceived social weight to perform or not perform a certain conduct, usually affected by the probability of endorsement or objection from vital individuals or groups [17]. The degree to which these important people or groups would approve or disapprove of the actions significantly impacts one's intentions. The influence of subjective norms may be particularly critical for new or challenging behaviours in terms of control [18].

Perceived behavioural control relates to the individual's perception of their ability to perform a given behaviour. According to [17], intentions and actions are influenced by beliefs about the availability of necessary resources and opportunities. These control beliefs are shaped by personal experiences, indirect information from others, and factors that affect the perceived ease or difficulty of engaging in the behaviour.

## 2.2 Perceived Value

Perceived value is the consumer's general assessment of the convenience of an item or benefit, taken under consideration of the benefits compared to the costs [19]. Perceived value is commonly understood as a trade-off between the benefits and costs experienced by consumers when acquiring a product [22]. This assessment plays a pivotal role in influencing consumer decisions, satisfaction levels, and loyalty towards brands [20].

A prominent framework used to evaluate perceived value is the PERVAL model developed by [21]. This model categorizes perceived value into four distinct dimension, but only two are incorporated in this research:

**Emotional Value:** This value is derived from the affective states or feelings evoked by a product or service [23]. Emotional value in consumer contexts often manifests as perceived playfulness or enjoyment derived from the product or service interaction [19]. Studies indicate that higher perceived playfulness enhances user engagement and fosters loyalty, thereby influencing purchase intentions [24]. If users find greater satisfaction in an online game, they are likely to continue playing it with enthusiasm, and may even develop stronger motivations such as loyalty and willingness to make payments [24] [25].

**Economic/Price Value:** This value represents the perceived worthiness of the product/service in relation to its cost [26]. Economic value refers to the perception of obtaining good value for money spent on a product or service [23]. Consumers are more likely to perceive a good price-value relationship positively, which can lead to increased satisfaction and loyalty towards the brand [27].

## 2.3 Price

Price alludes to the utility determined from a portable diversion benefit due to a reduction in its seen short-term and long-term costs [23]. It is frequently the key influence on a customer's choice to purchase an item or benefit. A great cost is characterized as the degree to which a customer accepts the versatile amusement benefit received as worthy of the fetched price [26]. Each individual holds a distinctive recognition of the cost they are willing to pay, and in the event that a customer feels the portable diversion benefit they received was worth the cost, their discernment of the level of esteem will be high. In portable social recreations, interaction with others and connectedness upgrade the discernment of and rationale for a great cost [24]. Past considerations have appeared that a great cost increases users' positive state of mind and their installment intention [19].

## 2.4 Hypothesis Development

H1<sub>1</sub>: Perceived playfulness significantly influences brand loyalty in EA FC Mobile.

H1<sub>0</sub>: Perceived playfulness does not significantly influence brand loyalty in EA FC Mobile.

H2<sub>1</sub>: Price significantly influences brand loyalty in EA FC Mobile.

H2<sub>0</sub>: Price does not significantly influence brand loyalty in EA FC Mobile.

### 3 Methodology

#### 3.1 Study Type, Population and Sampling

The study employs quantitative methods to systematically investigate phenomena using statistics, mathematics, and numerical data processing [28]. Quantitative research relies on numerical estimates to connect empirical observations with mathematical expressions of relationships.

The unit of analysis in this research refers to EA FC Mobile players who have played the game between 2016 and 2024, focusing on them as the primary subject of study [29].

The population of interest, the target of the study, includes a large number of individuals, necessitating sampling. Sampling involves selecting a statistically representative subset from this population [30]. In this case, a non-probability sampling method was used, meaning not all individuals had an equal chance of selection [31]. The sample size was determined using the Cochran formula due to uncertainty about the population size. Respondents were required to have downloaded and played the game for at least a month between 2016 and 2024.

#### 3.2 Research Framework

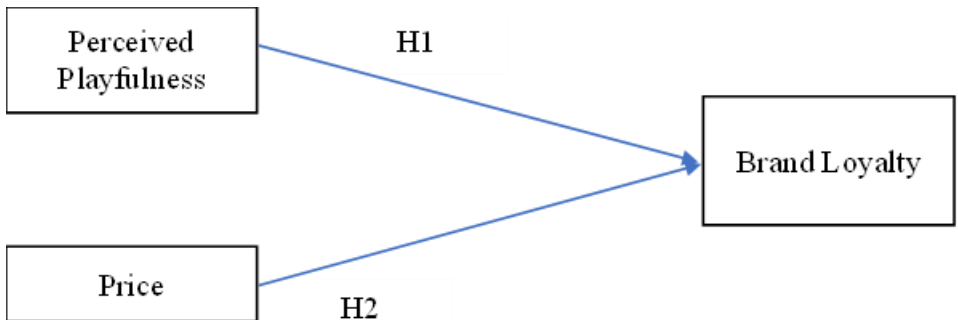


Fig. 1. Research Framework

#### 3.3 Data analysis

A SmartPLS Test based on the Partial Least Squares technique was utilized. The outer model in research involves the purification stage within the measurement model before testing concepts and models in predictive relationships. This stage assesses the validity and reliability of constructs and instruments. Validity ensures instruments measure intended constructs accurately, while reliability tests consistency in measurement or respondent responses [32].

Convergent validity in Partial Least Squares (PLS) is evaluated through loading factors, where values exceeding 0.5 indicate significant impact on construct measurement. Average Variance Extracted (AVE) should also be above 0.5 for the items to be accepted. [33].

Discriminant validity is assessed by cross-loading measurements, with values > 0.5 indicating good discriminant validity [33].

Composite reliability, a method recommended by [33], measures internal consistency of constructs, with values exceeding 0.5 considered reliable.

The inner model in research predicts causal relationships among key variables through a structural model. Using the Bootstrapping process, T-statistic tests forecast these relationships in Partial Least Squares (PLS). Evaluation of the structural model includes assessing the R2 value for the dependent construct and path coefficients or T-values for each path to determine construct significance. A higher R2 indicates a more effective predictive model, though it does not measure absolute accuracy. Path coefficients, represented by T-statistic values, must exceed 1.96 for two-tailed hypotheses at a 5 percent alpha level, or 1.64 for one-tailed hypotheses [33].

#### 4 Result and Discussion

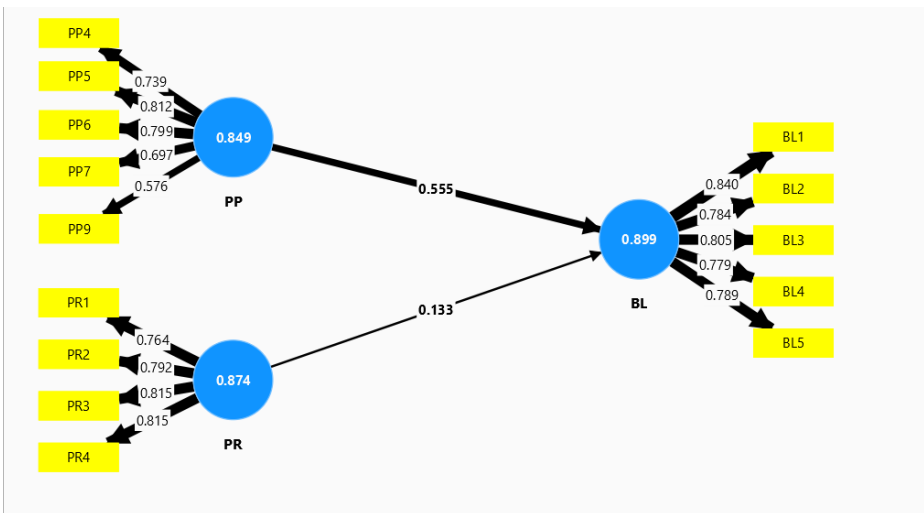


Fig. 2. Hypothesis Result Diagram

Table I. Hypothesis Result

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics ( O/STDEV )	P-values
PP -> BL	0.555	0.564	0.045	12.228	0.000
PR -> BL	0.133	0.142	0.057	2.347	0.020

Fig. 2 and Table I show the result of the test. It is shown that Perceived Playfulness has T-statistic value of 12.228, thus accepting the H1<sub>1</sub>. The study's findings align with previous research showing that Perceived Playfulness is a significant factor influencing Brand Loyalty. This is supported by the studies conducted by [19], [34], and [35].

A majority of the respondents mentioned that EA FC Mobile is a fun game to play, and that they enjoy their time playing FC Mobile. This shows that when gamers really enjoy playing the game, they will have a positive attitude towards the game and in advance being loyal to them. As EA rewards the players with in-game items in the gameplay, it reflects that the gameplay has satisfied its fanbase and served its purpose in providing fun and enjoyment for the gamers.

Meanwhile, it's shown that Price has a T-statistic value of 12.228, thus accepting the H2<sub>1</sub>. The study's findings align with previous research showing that price is a significant factor influencing Brand Loyalty. This is supported by the studies conducted by [34] and [36], although [4] noted that a good price does not significantly influence brand loyalty. Despite that, it is worth noting that previous studies mentioned the importance of good and competitive pricing, noting that if customers believe that the mobile game service they got matched the price they paid, they will perceive it as good value [4] [34].

The responses on the questionnaire tend more to the negative side of the answer, with many stating that the in-game items sold are not affordable for them. It is understandable though, noting that 60 percent of the respondents have earnings below Rp1,000,000.00 and it can be concluded that many of the respondents have low purchasing power.

## 5 Conclusion

The majority of respondents in the study are young adults aged 18 to 24, making up 43.9 percent of the total, followed by those aged 12 to 18 at 30.7 percent. Most respondents are school students (32.8%), university students (25.8%), or full-time job holders (20.6%). In terms of education, 50.5 percent have a Senior High School education, and 36.9 percent hold a Diploma 4 or Strata 1 qualification. A significant portion of respondents (53.7%) earn less than Rp500,000.00 monthly, indicating low purchasing power among the players. Perceived playfulness and affordable in-game items are crucial for maintaining brand loyalty. Enjoyable gameplay leads to greater loyalty, while high prices for in-game items can negatively impact loyalty, given the low purchasing power of most respondents.

To enhance playfulness and retain players, the study recommends continuing to improve the gameplay experience and regularly introducing new features and updates. Bringing new events and sponsoring competitions can keep the game exciting. Reevaluating the pricing strategy for in-game items to make them more affordable and offering more in-game rewards and promotions can provide better value to players. Marketing efforts should target the predominant age group (18–24 years) and student demographics, emphasizing the fun and engaging aspects of the game. Utilizing social media and other digital platforms popular among younger audiences can help increase engagement and attract new players.

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