

# Understanding Mobile Game Download Intention: Influence of Social Media, In-game Ads, and Store Optimization under Wi-Fi Constraints

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## ABSTRACT

The study aims to find out “What is the influence of social media influencer qualities, in-game advertisements, and app store optimization towards the Intent of millennials of Metro Manila, Philippines to download mobile games while being moderated by their Wi-Fi restrictions?”. The study gathered data through a survey that was distributed in online forums, discord communities, live streaming of different social media influencers, and e-sport tournaments to gather quantitative perspectives on the topic. The main method used to analyze the relationship between all the variables is Structural Equation Modeling (SEM). It was concluded that the relationship between Social Media Influencer Qualities and App Store Optimization with Download Intention both have a significant and positive relationship while In-game Advertisements do not have a significant relationship with Download Intention. Furthermore, Wi-Fi Restrictions are found to have a significant moderating effect on Social Media Influencer Qualities and Google Play Store Optimization. While it does not have a significant moderating effect on In-game advertisements.

Keywords: Social Media Influencer, Download Intention, App Store Optimization, Wi-Fi Restrictions, Structural Equation Modeling.

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## 1. BACKGROUND

The mobile game industry is a popular and growing industry in the country. Seeing that around 60% of Filipinos play games regularly, it can easily be said that gaming is a major part of the lifestyle and routines of Filipinos (Statista, n.d.). With more attention being drawn to the gaming industry, both aspiring and experienced game developers need to understand a consumer's rationale when downloading a game (Clement, 2022b). A lot of factors come into play in the download intention of mobile games from the app store. The app's visibility on the app store is one of the most important elements. According to Lin & Chen (2019), users may find it difficult to find new games or applications that suit their needs given the millions of applications that are accessible for download. To increase an app's exposure and rating on the app store, app store optimization entails optimizing the title, description, and other metadata (Karagkiozidou et al., 2019). The social proof of the application is another aspect that affects a user's choice to download a mobile game. The concept of social proof states that individuals are more inclined to exhibit a behavior if they observe others doing it. This can come in the form of social media influencer qualities for mobile games. Social media influencers are those who have a sizable online following and have the power to affect the actions of their followers. Another important consideration for users when choosing whether to download a mobile game is in-game advertising. Banner ads, video ads, and interactive ads that show up between stages or during gaming breaks are all examples of in-game advertisements. In-game advertisements can be an effective approach to draw users who are already interested in mobile gaming to other games or applications, even though some users may find them annoying or obtrusive. The study will focus on millennials of Metro Manila, Philippines who have downloaded and used mobile games from the Google Play Store.

Moreover, this study aims to answer the following questions:

1. What is the influence of social media influencer qualities, in-game advertisements, and store optimization towards the Intent of millennials of Metro Manila, Philippines to download mobile games while being moderated by their Wi-Fi restrictions?
2. What are the individual effects of social media influencer qualities, in-game advertisements, and app store optimization toward the intention to download mobile games?
3. What is the moderating effect of the game's Wi-Fi restrictions on the effect of social media influencer qualities, in-game advertisements, and store optimization on the intent to download mobile games?

Addressing these research problems can contribute to game developers as they can use information gained from this research to be able to make sound and informed decisions that can be used to develop new games that can attract users and create strategies on how to increase the usage of their games. Social media influencers, streamers, and streaming platforms benefit from the insights in this research as they can form new strategies on how they can negotiate with game developers based on their role and relevance to the industry. Another key significance is that social media influencers, streamers, and platforms can strategize on how to make their content engaging and be able to connect to their target audience to increase their followers, incentives, and usage respectively. Finally, the research can be used by the future researcher as a basis or starting point for their research as technology, behavior, and relevance of factors change drastically. The study offers a robust framework that can be replicated and the statistical analysis can be used to compare new datasets from other local, and age groups.

## 2. LITERATURE REVIEW

### 2.1 Social Media Influencer Qualities (SQ)

Social media influencer qualities are defined as the characteristics and personal attributes of the social media influencer that act as peripheral cues to the audience (Masuda et al., 2022). Results from the study of Pan (2011) reveal that there is a significant weak direct relationship between Social Influence and the Adoption of mobile games. The findings of the research of Baabdullah (2018) also reveal that there is a significant moderate direct relationship between social influence and behavioral adoption of mobile social network games (M-SNG) in Saudi Arabia. Another study by Jiménez-Marín et al. (2021) proved that the success of video games may be attributed to the influencers' capacity to build trust and create relationships with their followers through personal dialogue. Meglaj & Zafar (2022) investigate in their study whether an influencer's qualities, namely authenticity, trustworthiness, expertise, attractiveness, and similarity, can impact the intent of consumers under Generation Z and Y in Sweden to purchase tech gadgets. Meglaj & Zafar (2022) and Kim & Kim (2021) both emphasize authenticity in influencer marketing, defining it as the original style of the influencer and their capacity to be sincere and genuine when endorsing brands. Authenticity encompasses the influencer's genuine intention to share opinions about products or services, often demonstrated through personal stories, unique interactions with followers, or original communication styles. Trustworthiness is described by Meglaj & Zafar (2022) as social media influencers being "neutral and independent advisors". Similar to the definitions of Rayasam & Khattri (2022) and Nafees et al. (2021), consumers trust influencers based on their perception of the influencer's capacity to share accurate and truthful information. Meglaj & Zafar (2022) also suggest that sponsored posts do not immediately improve or reduce trustworthiness, but non-disclosure of the sponsorship will negatively affect trust. The next identified attribute is attractiveness which is defined as the degree to which the audience is attracted to the influencer's physical looks, charisma, personality, friendliness, and more (Meglaj & Zafar, 2022). According to Kim & Kim (2021), physically attractive influencers are also likely to be perceived by followers as strong, outgoing, motivated, informed, and responsive. Lastly, similarity or homophily is a social comparison made by followers between themselves and the influencer as well as between the influencer and the brand being endorsed.

### 2.2 In-game Advertisement (IA)

In-game advertisements are considered a form of product placement (Leng, 2011). It can be defined as "the integration of non-fictional products and brands within the playing environment of video and computer games through simulated real-life marketing communications mechanisms" (Vashisht et al., 2020). Three studies were conducted to establish a relationship between IGA and download intention (DI). Soebandhi & Andriansyah (2017) found that IGA has no direct effect on the purchase intention. Akhan (2022) showed that there is a significant but negative effect on DI. Hussein & Abd (2018) found that IGA has a significant effect on DI. In-game advertisements according to Smith et al. (2014), concern advertising products/services within the game's environment. They further stressed that it can be delivered in two types of displays. The static display is where elements are coded into the game while the game is being developed. It will be hard for developers to change the advertisement once the game is made. While the dynamic display, on the other hand, allows advertising content to be changed. This type of display can easily

be changed through an internet connection, which adjusts pre-existing areas within the game in real time. Moreover, in-game advertising messages can be delivered in two ways. The first is marketing displays. It is defined as “static or dynamic displays which can be either associative or interactive simulations of real-world media” (W. M. Smith et al., 2014). The second is product placement. It can be defined as “the integration of branded non-fictional products embedded within the gaming environment as either passive implicit background element or vice versa” (W. M. Smith et al., 2014).

### **2.3 App Store Optimization (AO)**

App Store Optimization refers to any action made by the developer to boost their application in the users (Toppan, n.d.). This can also be defined as the process by which application views and searches are translated to downloads (Karagkiozidou et al., 2019). Lin & Chen (2019), Tang et al. (2020), and Sun et al. (2016) all found a significant and positive relationship between AO and DI. Strzelecki (2019) suggests that AO comprises two main elements namely developer-dependent elements and user-dependent elements. Developer-dependent elements are defined as the actions taken by game developers to boost the game’s appearance in the application store search engines. This also includes any attempt by the developer to increase the game’s ratings and reviews. User-dependent elements on the other hand cannot be controlled by the developer. These elements can be considered as means to measure the success of a game. Some developer-dependent elements according to Strzelecki (2019) include the following: the name of the application, genre, description of the application, compatibility of the application to its audience, phone specification requirements, URL, date when the last update was released, and the list of updates.

### **2.4 Wi-Fi Restrictions (WR)**

Wi-Fi restriction is defined as the internet connectivity requirement of a certain game. This can be classified into two namely online games and offline games. The study of Punnikitikashem et al. (2016) concluded that there was no significant relationship between Wi-Fi restriction which was represented by perceived co-presence and download intention which was represented by intention to play.

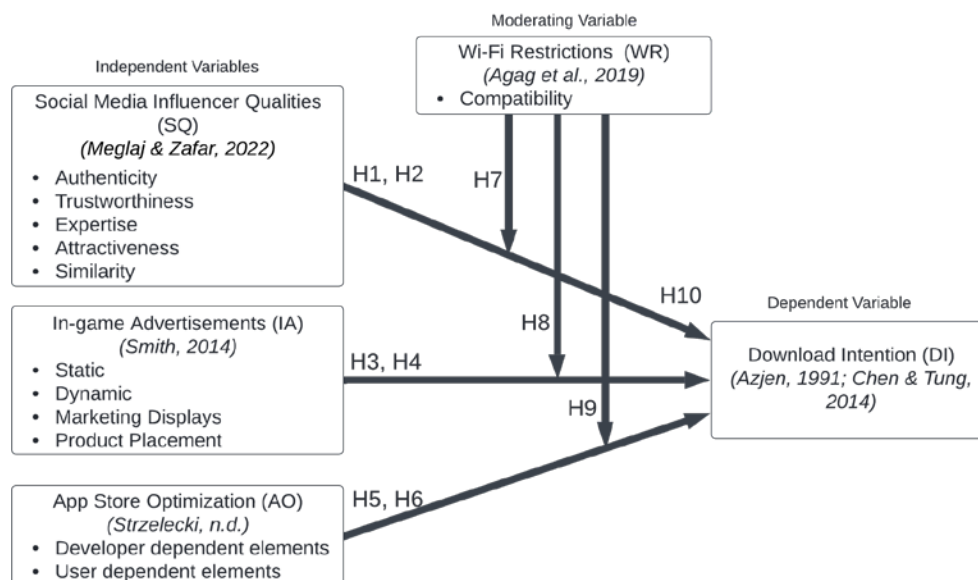
### **2.5 Research Gap**

Based on the reviewed literature, there is a dearth of studies examining the interplay between social media influencer qualities, in-game advertisements, and app store optimization concerning mobile game download intention, particularly within the context of Wi-Fi restrictions (Meglaj & Zafar, 2022; Sun, Cheng, & Cui, 2016; Lin & Chen, 2019). While individual aspects such as influencer qualities or in-game advertisements have been studied, their collective impact on download intention remains largely unexplored, especially in the presence of Wi-Fi constraints (Meglaj & Zafar, 2022). Quantitative investigations into influencer qualities and app store optimization are advocated due to their scarcity in the literature (Meglaj & Zafar, 2022). Methodologies such as factor analysis and structural equation modeling have been utilized but necessitate more robust approaches to mitigate biases and confounding factors (Meglaj & Zafar, 2022). Additionally, qualitative methods, longitudinal data, and objective measures should be incorporated to enhance the validity and reliability of findings (Meglaj & Zafar, 2022). The specific impact of these variables on download intention among millennials in the

Philippines merits dedicated exploration due to cultural and social variations (Zhao, 2015). Moreover, considering the evolving landscape of mobile gaming preferences influenced by the COVID-19 pandemic and the new normal, new research should capture the shifting behaviors among Gen Z students (Facebook IQ, 2021). Most existing studies rely on convenience sampling and online surveys, limiting generalizability (Meglaj & Zafar, 2022). To address this, future research should diversify sampling methods and use advanced statistical tools to glean richer insights from relevant stakeholders (Jiménez-Marín et al., 2021). Furthermore, discrepancies in findings regarding in-game advertisements underscore the need for further investigation, accounting for factors such as demographics and time frames (Soebandhi & Andriansyah, 2017; Akhan, 2022).

### 3. OPERATIONAL FRAMEWORK

Figure 1. Operational Framework to measure the effect of Social Media Influencers, In-game advertisements, and App Store Optimization on Download Intention while being moderated by Wi-Fi Restrictions



The Theory of Planned Behavior, proposed by Ajzen (1991), suggests that attitudes, subjective norms, and perceived behavioral control influence behavior. In the context of download intention, this theory implies that students' attitudes towards mobile games, social norms, and their perceived control over downloading games will significantly impact their intent to download. This framework is the basis of understanding the download intention of millennials. Next, the framework for Social Media Influencer Qualities, based on the study by Meglaj & Zafar (2022), includes authenticity, trustworthiness, expertise, attractiveness, and similarity as influencer qualities that can influence purchase intention. In the context of this research, these qualities will be examined to understand their impact on the intent of students to download mobile games. Regarding in-game advertisements, the framework proposed by Smith (2014) on game advertising is adopted, encompassing static or dynamic displays and different ways of delivering advertisements (marketing displays or product placement). This framework will help shed light on the impact of in-game advertisements on students' intent to download

mobile games. Additionally, the App Store Optimization Framework by Strzelecki (2019) will be employed to further understand App Store Optimization. This framework includes developer-dependent elements and user-dependent elements, both of which influence the visibility and attractiveness of mobile games in app stores. Understanding App Store Optimization is crucial in comprehending how it affects students' intent to download games. Finally, considering Wi-Fi restrictions, the theory proposed by Agag et al. (2019) posits that compatibility, including access to Wi-Fi, can influence consumers' decisions. Applying this theory, it is expected that Wi-Fi restrictions can play a significant role in shaping students' intent to download mobile games.

### 3.1 Hypotheses of the Study

The following are the hypotheses that have been developed, and are subject to be tested through this study:

**H01:** Social Media Influencer Qualities (SQ) have no significant relationship with the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H02:** Social Media Influencer Qualities (SQ) have no significant and positive impact on the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H03:** In-game Advertisements (IA) have no significant relationship with the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H04:** In-game Advertisements (IA) have no significant and positive impact on the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H05:** App Store Optimization (AO) has no significant relationship with the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H06:** App Store Optimization (AO) has no significant and positive impact on the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H07:** Wi-Fi Restrictions (WR) do not moderate the relationship between Social Media Influencer Qualities (SQ) and the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H08:** Wi-Fi Restrictions (WR) do not moderate the relationship between In-game Advertisements (IA) and the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H09:** Wi-Fi Restrictions (WR) do not moderate the relationship between App Store Optimization (AO) and the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

**H010:** Wi-Fi Restrictions (WR) do not moderate the relationship between Social Media Influencer Qualities (SQ), In-game Advertisements (IA), and App Store Optimization (AO) and the intention of millennials in Metro Manila, Philippines to download mobile games (DI).

## 4. RESEARCH METHODOLOGY

A descriptive, exploratory, correlational, and causal-explanatory research design was adopted. A sample of 385 millennials in Metro Manila, Philippines, which was divided proportionally among the cities, was given a survey containing 75 items divided into 6 sections. Section 1 covers demographic-related items, with some adapted from the studies of Wahab et al. (2022), Meglaj & Zafar (2022), Rayasam & Khattri (2022), and Agag et al. (2019). Section 2 measures download intention following the works of Han et al. (2015), Beck & Ajzen (1991), and Chen & Tung (2014). Meanwhile, Section 3 measures social media influencer qualities. Items for its five sub-constructs were developed by Meglaj & Zafar (2022), Wahab et al. (2022), Rayasam & Khattri, (2022), Baabdullah (2018), and Wang et al. (2019). Section 4 measures in-game advertisements and its four sub-constructs according to the works of Lewis & Porter (2010) and Smith et al. (2014). Section 5 covers items on app store optimization as well as its two sub-constructs based on Strzelecki (2019) and Agag et al. (2019). Last, Section 6 measures Wi-Fi restriction and its sub-construct based on Agag et al. (2019). Descriptive statistics and structural equation modeling (SEM) were then used to examine the relationship between the five variables.

#### 4.1 Ethical Consideration

Ethical considerations are paramount in this quantitative study to ensure the safety of participants' rights, confidentiality, and well-being. Informed consent was obtained from all participants before their involvement in the study, outlining the purpose, processes, and potential risks and benefits of participation. Confidentiality measures were applied to protect contributors' anonymity, with data stored securely and most effectively accessible to authorized researchers. Additionally, the researchers have adhered to moral recommendations regarding the handling and dissemination of data, ensuring that findings are provided accurately and respectfully.

### 5. RESULTS OF THE STUDY

Data collection for the study ran from October 2023 to December 2023. The survey questionnaire was distributed through a Google Forms link. A total of 385 respondents was collected, which consists of millennials in Metro Manila, Philippines. Descriptive statistics, correlation analysis, and structural equation modeling were performed through Microsoft Excel, Jamovi, and SPSS Amos.

#### 5.1 Descriptive Statistics

Table 1a. Frequency Distribution of Respondents by Sex Assigned at Birth

Sex Assigned at Birth	n	% of Total
Female	205	53.2 %
Male	180	46.8 %

Table 2a. Frequency Distribution of Respondents by Genre

Genre	n	% of Total
Multiplayer Online Battle Arena (MOBA)	195	14.69%
Adventure	135	10.17%
Action	132	9.95%
Role-Playing Games (RPG)	118	8.89%
Battle Royale	105	7.91%

Arcade	97	7.31%
Strategy	91	6.86%
Massively Multiplayer Online Role-Playing Games (MMORPG)	84	6.33%
Puzzle	82	6.18%
Racing	68	5.12%
Educational	61	4.60%
Simulation	57	4.30%
Card	56	4.22%
Sports	44	3.32%
Other	2	0.15%

Note: Respondents have multiple chance to choose which genre they are playing.

Table 3a. Frequency Distribution of Respondents by Online/Offline Game Preference

Online/Offline Game Preference	n	%
Neutral	111	28.80%
Strongly Prefers Online	100	25.95%
Prefers Online	97	25.32%
Prefers Offline	39	10.13%
Strongly Prefers Offline	38	9.81%

The respondents were relatively equally distributed among males and females. Most were subscribed to PLDT or Globe for their internet services, closely followed by Converge. The top 5 genres played are MOBAs, adventure, action, RPGs, and battle royale. Moreover, 50% favor online games, 29% enjoy both games, and 20% favor offline games. Roughly 30% play Mobile Legends: Bang Bang, followed by Call of Duty: Mobile, Clash of Clans, Genshin Impact, and Coin Master. Facebook, Instagram, YouTube, and TikTok are the top social media platforms used to follow influencers. The preferred advertising medium is dynamic content like videos, reels, and livestreams, which attracts attention better than static content (Endberg, 2022). No significant preference for entertainers over informative influencers was observed. The majority follow professional gamers, content creators, and streamers to learn about new games, while a minority follow popular influencers. Mobile games are mostly played at home, in school, or while traveling. Also, the top reasons for playing games were to pass time, destress, and as a hobby. Finally, mean analysis shows that respondents agree that they have the intent to download games, and social media influencer qualities, app store optimization, and Wi-Fi restrictions are important to them. Respondents were neutral towards in-game advertisements.

## 5.2 Structural Equation Modeling

### 5.2.1 Exploratory Factor Analysis

To ensure the reliability of results found in the structural model for this study, an exploratory factor analysis was first conducted to determine the factor structure found for each variable used in the study as well as the internal reliability of the variables given the items used in the survey.

The first variable is social media influencer qualities which contained 15 items. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.961. The Bartlett test of sphericity was found to be significant ( $\chi^2 = 3403$ ,  $p < .001$ ). Both pre-analysis test measures show the suitability of the data. An analysis of the initial eigenvalues suggests that only one factor is recommended since the first factor was the only value greater than



1. However, the parallel analysis criterion suggests the use of a two-factor solution. Further analysis showed that the initial two factors explained 60.7% of the variance. J. Hair et al. (2007) suggested that factor loadings for each item should be greater than 0.50 while cross-loadings should at most be 0.30. After applying these criteria, the scale was reduced to 12 items which explained 62.6% of the variance. The reliability of each factor was found to be reliable since both have post-test Cronbach's Alpha above 0.70.

The second variable is in-game advertisements which contain 12 items. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.926. The Bartlett test of sphericity was found to be significant ( $\chi^2 = 2175$ ,  $p < .001$ ). Both pre-analysis test measures show the suitability of the data. An analysis of the initial eigenvalues suggests that only one factor is recommended since the first factor was the only value greater than 1 yet the parallel analysis criterion suggests the use of a three-factor solution. Initial analysis showed that the initial three factors explained 62.0% of the variance. After applying the criteria of J. Hair et al. (2007), the scale was reduced to 8 items which explained 66.8% of the variance. The reliability of each factor was found to be reliable since both have post-test Cronbach's Alpha above 0.70.

The third variable is app-store optimization which contains 11 items. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.898. The Bartlett test of sphericity was found to be significant ( $\chi^2 = 1588$ ,  $p < .001$ ). Both pre-analysis test measures show the suitability of the data. An analysis of the initial eigenvalues suggests that only one factor is recommended since the first factor was the only value greater than 1. However, the parallel analysis criterion suggests the use of a two-factor solution. Further analysis showed that the initial two factors explained 51.1% of the variance. After applying the criteria of J. Hair et al. (2007), the scale was reduced to 6 items which explains 64.1% of the variance. Both factors have also been shown to be reliable as both Cronbach's Alpha values were reportedly above 0.70.

The fourth variable is Wi-Fi restriction which contains 3 items. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.649. The Bartlett test of sphericity was found to be significant ( $\chi^2 = 121$ ,  $p < .001$ ). Both pre-analysis test measures show the suitability of the data. An analysis of the initial eigenvalues and parallel analysis criteria suggests that only one factor is recommended since the first factor was the only value greater than 1. Further analysis showed that the initial one-factor structure explained 37.9% of the variance even after applying the criteria of J. Hair et al. (2007). However, the scale resulted in poor internal reliability due to a Cronbach's Alpha value of 0.640. This is below the 0.70 threshold.

The fifth and final variable is download intention with 14 items. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.942. The Bartlett test of sphericity was found to be significant ( $\chi^2 = 1507$ ,  $p < .001$ ). Both pre-analysis test measures show the suitability of the data. An analysis of the initial eigenvalues suggests that only one factor is recommended since the first factor was the only value greater than 1. However, the parallel analysis criterion suggests the use of a two-factor solution. Further analysis showed that the initial two factors explained 54.6% of the variance. After applying the criteria of J. Hair et al. (2007), the scale was reduced to 12 items which explains 56.1% of the variance. Both factors have also been shown to be reliable as both Cronbach's Alpha values were reportedly above 0.70.

### 5.2.2 Confirmatory Factor Analysis

To provide a robust test of the dimensionality of the variables used in this study, a confirmatory factor analysis is performed. Results from the initial analysis provided an unacceptable structural fit for all study variables (see Table 1). Applying the Lagrange Multiplier Test, modification indices were used to remove scale items to improve the model fit for each variable. Table 2 presents the adjusted model fit statistics for each variable in the study with acceptable structural fit while Table 3 presents the number of items remaining together with the number of scale items for each variable. All scales have shown acceptable structural fit which indicates their validity for use in the structural model. However, the poor reliability of Wi-Fi Restrictions may affect the validity of the results.

Table 1. Initial Model Fit Statistics for Confirmatory Factor Analysis of Study Variables

Variables	Absolute Fit	Incremental Fit		Parsimonious Fit	
	RMSEA	TLI	CFI	SRMR	$\chi^2/df$ p-value
Social Media Influencer Qualities	0.061	0.971	0.977	0.027	< .001
In-Game Advertisements	0.074	0.963	0.977	0.028	< .001
App Store Optimization	0.078	0.966	0.982	0.027	0.003
Download Intention	0.076	0.952	0.963	0.032	< .001
Criteria	< .05	$\geq 0.95$	$\geq 0.95$	< .08	> .05

Note: The Wi-Fi Restriction Scale was excluded due to poor reliability.

Table 2. Adjusted Model Fit Statistics for Confirmatory Factor Analysis of Study Variables

Variables	Absolute Fit	Incremental Fit		Parsimonious Fit	
	RMSEA	TLI	CFI	SRMR	$\chi^2/df$ p-value
Social Media Influencer Qualities	0.00	1.010	1.000	0.007	0.810
In-Game Advertisements	0.00	1.010	1.000	0.006	0.408
App Store Optimization	0.03	0.997	0.999	0.015	0.304
Download Intention	0.00	1.010	1.000	0.001	0.983
Criteria	< .05	$\geq 0.95$	$\geq 0.95$	< .08	> .05

Note: The Wi-Fi Restriction Scale was excluded due to poor reliability.

Table 3. Scale Items and Reliability Post-CFA

Variables and Factors	Scale Items		Scale Reliability	
	Initial	Adjusted	Initial	Adjusted
<b>Social Media Influencer Qualities</b>				
Credibility	12	5	0.942	0.896
Similarity	3	0	0.773	-
<b>In-Game Advertisements</b>				
Static Display	4	3	0.878	0.846
Dynamic Display	2	0	0.837	-
Product Placement	2	2	0.763	0.763
<b>App Store Optimization</b>				
Developer Dependent	4	3	0.853	0.794
User Dependent	2	2	0.823	0.823

<b>Wi-Fi Restriction</b>	3	3	0.640	0.640
<b>Download Intention*</b>	12	4	0.910	0.792

\*Note: Upon further inspection, a single-factor structure had a better model fit than the two-factor structure.

### 5.2.3 Direct Relationships

Table 4. Goodness of Fit Measures – Direct Effects

Indicator	Statistic	Criteria	Conclusion
RMSEA	0.028	< 0.10	Excellent Model Fit
CFI	0.962	≥ 0.95	Excellent Model Fit
$\chi^2/df$ p-value	1.508	< 2	Excellent Model Fit

Note: Criteria adapted from MacCallum et al. (1996) for RMSEA, West et al. (2012) for CFI, and Tabachnick & Fidell (2001) for relative chi-square ( $\chi^2/df$ )

Initial observations from the goodness of fit measures showed that the structural model had excellent fit across all three indices. Multivariate statistical analysis was conducted to determine the relationships present between the variables. The results indicate that social media influencer qualities ( $\beta = 0.432$ ,  $p < .001$ ), developer-dependent elements ( $\beta = -0.195$ ,  $p = 0.023$ ), and user-dependent elements ( $\beta = 0.215$ ,  $p = 0.004$ ) have a significant direct effect on download intention of the user. On the other hand, static display ( $\beta = -0.038$ ,  $p = 0.496$ ) and product placement ( $\beta = -0.024$ ,  $p = 0.1752$ ) did not have a significant direct effect on the download intention of the user. Hence, the null hypotheses for the first, second, fifth, and sixth hypotheses are rejected while the null hypotheses for the third and fourth hypotheses are not rejected.

### 5.2.4 Moderating Effects of Wi-Fi Restriction

Table 5. Goodness of Fit Measures

Indicator	Statistic	Criteria	Conclusion
RMSEA	0.046	< 0.10	Excellent Model Fit
CFI	0.982	≥ 0.95	Excellent Model Fit
$\chi^2/df$	1.652	< 2	Excellent Model Fit

Note: Criteria adapted from MacCallum et al. (1996) for RMSEA, West et al. (2012) for CFI, and Tabachnick & Fidell (2001) for relative chi-square ( $\chi^2/df$ )

Similar to the direct effects-only structural model, the structural model with the moderators showed excellent model fit. To better understand the role of Wi-Fi restrictions as a moderating variable, the results of the multivariate statistical analysis are discussed in the sub-sections below.

Wi-Fi restrictions when interacting with social media influencer qualities showed a significant moderating effect ( $\beta = 0.006$ ,  $p < .001$ ). This indicates that Wi-Fi restrictions significantly enhance download intention as social media influencer qualities improve. Further inspection shows that Wi-Fi restriction has a significant effect on download intention ( $\beta = -0.096$ ,  $p = 0.037$ ). As such, one can conclude that Wi-Fi restriction is a quasi-moderator in the relationship between social media influencer qualities and download intention. Hence, there is sufficient evidence to conclude that the null hypothesis in hypothesis 7 is rejected.

A moderation analysis was conducted with the relationship between In-game advertisement and download intention, Wi-Fi restrictions when interacted with static

display showed an insignificant moderating effect ( $\beta = -0.001$ ,  $p = 0.283$ ). The same applies when Wi-Fi restriction is interacted with product placement ( $\beta = 0.001$ ,  $p = 0.712$ ). This indicates that Wi-Fi restrictions do not improve or worsen the relationship between in-game advertisements and download intention. Hence, there is no sufficient evidence to reject the eighth null hypothesis.

After conducting a moderation analysis on the relationship between app store optimization and download intention, Wi-Fi restrictions when interacted with developer-dependent elements showed no significant moderating effect ( $\beta = -0.002$ ,  $p = 0.063$ ) while user-dependent elements showed a significant moderating effect ( $\beta = 0.007$ ,  $p < .001$ ). Since Wi-Fi restriction has a significant effect on download intention, the variable is considered a quasi-moderator in the relationship between user-dependent elements and download intention.

Given that only one of the two factors was found to have a significant interaction effect, there is partial evidence to reject the ninth null hypothesis. Thus, while Wi-Fi restrictions are a moderator in the relationship between social media influencer qualities and download intention as well as app store optimization and download intention, it does not moderate the relationship between in-game advertisements and download intention. This suggests that there is insufficient evidence to reject the tenth null hypothesis.

## 6. CONCLUSION

The findings showed that social media influencer qualities have a significant positive impact on download intention, indicating that partnering with credible influencers can improve download intent. App store optimization also had a significant positive impact on download intention, emphasizing the importance of investing in app store presentation. However, in-game advertisements did not significantly influence download intention, as many respondents found them obtrusive and irrelevant. Wi-Fi restrictions were found to be a quasi-moderator in the relationship between social media influencer qualities and download intention, indicating that Wi-Fi restrictions enhance this relationship. However, Wi-Fi restrictions did not significantly moderate the relationship between in-game advertisements and download intention. Wi-Fi restrictions had a substantial moderating effect when combined with app store optimization, affecting how it impacts download intention. Overall, the results of this study provide valuable insights into the factors influencing download intention among millennials of Metro Manila and the role of Wi-Fi restrictions in shaping these relationships. The results highlight the importance of social media influencers and app store optimization in attracting potential players while cautioning against intrusive in-game advertisements. Game developers can use these findings to create targeted marketing campaigns that align with the millennials of Metro Manila's preferences and behaviors in mobile game downloads.

## 7. RECOMMENDATION

Based on the findings of this study, It is recommended for game developer companies to invest in social media influencer marketing and app store optimization since both of these variables have a positive and significant effect on download intention. Game developers should partner with trustworthy and authentic social media influencer in order for the target market to relate more and be persuaded to download the games created by the developer. For store optimization, developers are suggested to use actual graphics from the games,

rather than creating new. With this authentic and real enthusiasm from the target market be seen and the game developers can create loyal customers that would download the games they produce. As for the gamers, it shows that OBA games are popular among the young demographic indicating the preferences of young consumers. It can also be noted that the top game played is Mobile Legends: Bang Bang which is also a MOBA game. Among the survey respondents, 30.67% said they play the said game. Therefore, it can be recommended that gamers enter a MOBA game to increase their chances of making a career out of the game. Since these types of games are also popular, it will also most probably be a high-income generating game. Another recommendation is for users or gamers to push for accountability of the developers if they spot misleading advertisements with regards the games' gameplay, marketing videos or pictures in the app store. Furthermore, it is suggested that gamers should provide authentic reviews so that future gamers can read the past reviews. When it comes to Social Media Influencers, they must exhibit positive qualities especially honesty, experience, and skill. These three qualities scored the highest in the Likert scale in the survey. Social Media Influencer Qualities are something that they can investigate and improve on since it has a significant positive effect on download intention. Specific courses of action that these influencers can take are always disclosing sponsorship and partnership advertisements. Another course of action is to always verify any facts that they tell their followers. Both these actions correspond to being honest influencers. The other two qualities, skill and experience, can be gained over time. Influencers that are skilled and experienced can work on promoting it more through the content they create to attract more viewers. Lastly, When conducting further research on this topic, it is recommended that researchers use a different moderating variable. The research showed that the moderating variable is not suitable for moderating the effects between download intention and the other independent variables, another variable can be used. One example is hardware limitations. Based on the mean score, it highlighted that the users are unable to download certain games as those games have to hardware limitations. Some of this includes storage space, having an old worn-down device, and having a battery that rapidly depletes. These limitations can sometimes hinder players from enjoying a game, thus hindering them from wanting to download the game. Wi-Fi Restrictions as a moderating variable were very limited and could have been expanded to look into other limitations players might experience if they are thinking of downloading a game.

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