

# CHAPTER I INTRODUCTION

## I.1 Background

In pandemic of COVID-19, the virus has disrupted normal activities globally. The obligation to stay at home and be quarantined indeed increases entertainment consumptions and it is part of recreational aspect that people need to make them refreshed, both physically, mentally, and spiritually. Online games are one of many activities of entertainment consumption where they are usually less harmful than other behaviors to cope with stress and aversive emotion like alcohol, drug use, and overeating (King et al., 2020). This event surely happened in many countries, as well as in Indonesia. Along with the increasing use of the internet in Indonesia, online game players also continue to keep growing.

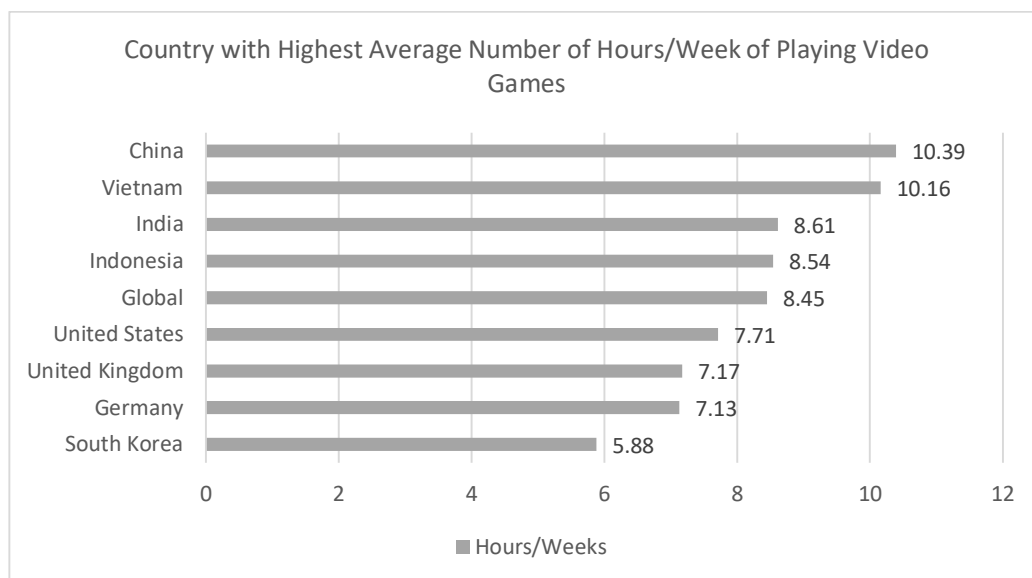


Figure I-1 Country with Highest Average Number of Hours/Week of Playing Video Games (January 2021) source: Limelight Networks and World Economic Forum via InCorp

In January 2019, Indonesia's gaming market is ranked 17<sup>th</sup> in the world and being the first in Southeast Asia. Report of Limelight Networks' states that

Indonesians spent around 8.54 hours/week for playing video games, a bit high than global average of 8.45 hours/week (InCorp Editorial Team, 2023). In added, Kementerian Komunikasi dan Informatika (Kominfo)—*Ministry of Communication and Information*—with Nico Partners claimed that the number of PC game player has reached 53.4 million people and for mobile game is 133.8 million people in Data Peta Ekosistem Industri Game Indonesia 2021 (*Indonesia Game Industry Ecosystem Map Data*) (Kominfo, 2022).

And one of the online games that won the Best Game of 2020 award of Google Play annual award is Genshin Impact (Takahashi, 2020). Genshin Impact is a cross-platform online game that was released on 28<sup>th</sup> September 2020 by a video game development and animation studio based in Shanghai, miHoYo. Co., Ltd. Catching a lot of attention from fans its home country, China, and Global fans. This game is an open-world roleplay game that applies Player vs Environment (PvE) type. Based on Active Player via Fiction Horizon, there are around 65,521,480 active players according to the data with the all-time peak registering around 8,500,000 concurrent players (Milakovic, 2023).

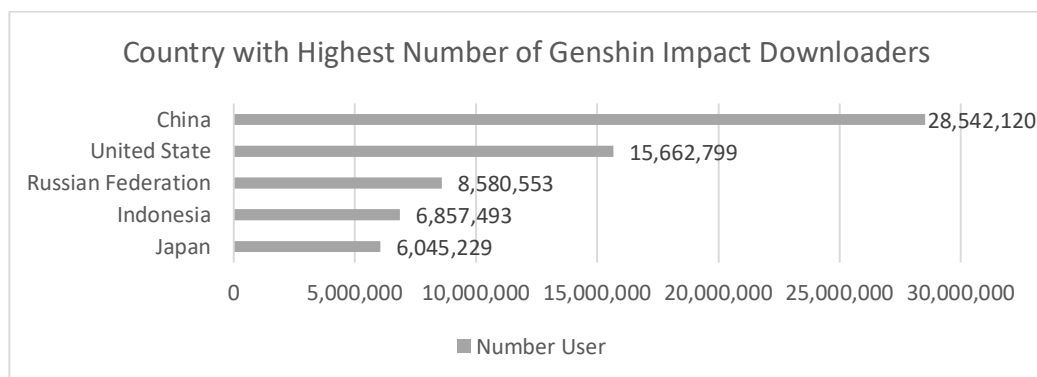


Figure I-2 Country with the Highest Number of Geshin Impact Downloader in (September 2020 — September 2023) source: gamerswk

While report from AppMagic site via gamerwk, there are around 6,857,493 downloaders in Indonesia based on Google Play and App store on September 9<sup>th</sup>, 2022. It makes Indonesia as 4<sup>th</sup> country with the most Genshin Impact player for mobile platform surpassing Japan (Fadhil, 2022).

Not only be the winner of the Best Game in 2020, in fact Genshin Impact is in first position as the game that is most talked about on one of the social network services, Twitter, in 2021 (Chadha, 2021). It makes the existence of the Genshin Impact community in Twitter is no need to be doubted. Twitter itself is one of the most widely used microblogging and maintain its status as a popular social media platform (Ahlgren, 2021). On Twitter, users are allowed to write their thoughts in 280 characters and call it tweet. This tweet can contain information, including public opinion on various subjects (Adwan et al., 2020).

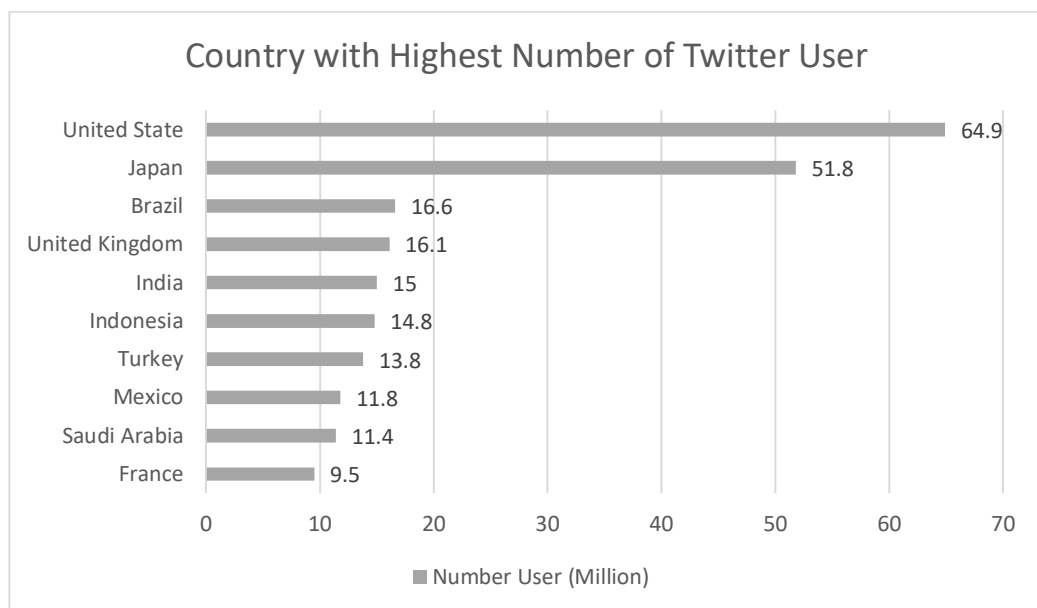


Figure I-3 Country with the Highest Number of Twitter User (April 2023)  
source: databoks

Globally, Twitter has 396.5 million users and at least 500 million tweets are sent every day (Shepherd, 2023). Meanwhile in Indonesia, there are approximately 14,75 million users in April 2023, and it makes Indonesia in the sixth rank as a country with the highest number of Twitter user based on databoks (Annur, 2023).

With many tweets that are posted every day, there will be a lot of information and opinion about Genshin Impact on Twitter. Therefore, sentiment analysis can be a way to process this information and opinion, and find out how people perceive Genshin Impact, whether the user is really satisfied or otherwise, because sentiment analysis is a process of extracting emotional intent from text of post owner (Kwartler, 2017). Later the result of sentiment analysis in form of detailed summarization document can be used by game developers as advantage since the opinion contains such information (Blazquez & Domenech, 2018).

Working on sentiment analysis have been researchers' job to help discovering user attitudes in various cases and on different social media data particularly on Twitter (Kausar et al., 2021). One case of previous studies about sentiment analysis is Analisis Sentiment pada Twitter untuk Games Online Mobile Legends dan Arena of Valor dengan Metode Naïve Bayes Classifier (*Sentiment Analysis on Twitter for Online Games Mobile Legend and Arena of Valor using Naïve Bayes Classifier Method*). The purpose of the study is to be able to classify polarization of the positive and negative sentiment to both games online: Mobile Legend and Arena of Valor and get the accuracy from it (Simorangkir & Lhaksamana, 2018). Meanwhile the other case of sentiment analysis specifically on Genshin Impact, the recent one is Sentiment Analisis Terhadap Game Genshin Impact Menggunakan BERT (*Sentiment Analysis of Genshin Impact using BERT*) with Google Play Store review as its subject (Kusnadi et al., 2021). Thus far there's no study with Twitter users as its subject on Genshin Impact sentiment.

The lack of sentiment analysis of Genshin Impact with Twitter user as its main subject, the author proposes a study of sentiment analysis using Naïve Bayes. Many cases of sentiment analysis use Naïve Bayes because the accuracy result is quite high. As an example, *Twitter Sentiment Analysis towards COVID-19 Vaccines in the Philippines Using Naïve Bayes* by Charlyn et al. (2021) that study about Philippine government's effort toward COVID-19. The study's result reaches 81.77% accuracy. Another case, *Comparison of SVM & Naïve Bayes Algorithm for Sentiment Analysis Toward West Java Governor Candidate Period 2018-2023 Based on Public Opinion on Twitter* by Kristiyanti et al. (2018) with purpose to predict the sentiment of the candidate pairs for Governor of West Java period 2018-2023 and compare the accuracy result between two algorithms. The result is Naïve Bayes leads the score by 94% accuracy as its highest accuracy while Support Vector Machine's highest accuracy is 75.50%. Last case of it, *Sentiment Analysis of Social Media Twitter with Case of Anti-LGBT Campaign in Indonesia using Naïve Bayes, Decision Tree, and Random Forest Algorithm* by Fitri et al. (2019). The purpose of the study is to compare the classifier and to know the sentiment of the Anti-LGBT campaign in Indonesia. As the result, Naïve Bayes reaches 86.43% accuracy where it is higher than the other algorithm. Added to it, Naive Bayes is chosen as the method of process the sentiment, because the method has a minimum error rate compared to other classification algorithms and Naïve Bayes often performs much better in most complex real-world situation (Anggraini et al., 2020). The author expected this study to help research in developing sentiment analysis and to let people know public opinion on Genshin Impact more.

## **I.2 Problem Formulation**

There are several problems to be discussed from this study research:

- a. How do people on Twitter perceive Genshin Impact?
- b. What is accuracy of Genshin Impact Sentiment Analysis by using Naïve Bayes classifier?

## **I.3 Research Purpose**

From the research problem above, it can be concluded several research purposes:

- a. To know people on Twitter's sentiment on Genshin Impact.
- b. To know the accuracy of Naïve Bayes on Sentient Analysis of Genshin Impact

## **I.4 Research Scope and Limitations**

To avoid the study from getting wider and swerve from its objectives, below are the limitation:

- a. Tweets are crawled from Twitter with keywords: Genshin, Genshin Impact, #Genshin, #GenshinImpact, #Genshin\_Impact.
- b. Tweets are filtered to Indonesian as its main language.

## **I.5 Research Objective**

The benefits of this research are:

- a. For public audiences, the result of analysis can provide information of people's opinion towards the game.
- b. For educational purposes, the result analysis can be used as reference of future research.

## **I.6 Writing Systematic**

The systematic writing described as follows:

**Chapter I Introduction**

This chapter mainly discusses research background which is related to the 5W+1H question; what, who, why, where, and how. Explaining the main problem, the purpose of its research, benefits for audience, and the scope for limitation.

**Chapter II Literature Review**

This chapter contains literature that is relevant and related to the research topic in which to support the understanding of the topic. All literature was taken from journals, books, and web pages.

**Chapter III Research Methodology**

In this chapter, it explains the conceptual model and research method that is used in this research. Discussing more about the detail of methodology

**Chapter IV Analysis and Design**

This chapter focuses on the detail methodology for the research, so it could reach the goal of this research and fulfill the objectives.

**Chapter V Result and Evaluation**

This chapter discussed in detail the result of the research and its reflection on the research objectives.

**Chapter VI Conclusion and Suggestion**

This chapter contains conclusion of the research which the purposes are to answer the research's problem and the suggestion for further research.