

Analysis of the Growth of the Music and Gaming Sector

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Chapter 2

Analysis of the Growth of the Music and Gaming Sector

The evolution of the music and gaming sectors in Indonesia cannot be separated from the development of the industries worldwide and their impact. Examining growth from that perspective provides a framework to analyse the data. The chapter will first look at the music sector and then at the gaming sector.

1. Music Sector

From the 1950s onwards,⁴ music began to take shape as an industry based on the combination of several activities, such as music composition, music recording, promotion, and performances, which all generated money. Music recording formats were introduced, such as cassette tapes and vinyl records in the mid-1970s, and CDs in the 1990s, together with MP3, which facilitated reproduction. In 1995, the internet became available for commercial use, marking the elimination of geographic boundaries in the distribution of recorded music products. As digital music made its way, CD sales decreased significantly, and the music industry had adjusted to the changes.

In Indonesia, the 1950s and 1960s were dominated by the emergence of record companies and solutions to produce recordings in a simpler form and at a more affordable price, with the cassette as a new medium. Many changes occurred in the 1970s. More modern equipment began to appear, including tape recorders that could be used to record songs from radio broadcasts, as well as from vinyl records. As a result, sales of blank cassettes grew, further fuelling the 'recording' culture amongst Indonesians. Changes were occurring not only in technology but also in the Indonesian market. Most Indonesians preferred pop music, but many musicians refused to cater to market demand, resulting in a decline in their incomes and careers. As record companies began to feel the need to keep up with changing market tastes to survive, the role of the producer emerged.

In 1985, Indonesia's recording industry faced international criticism for the proliferation of unauthorised compilations of Western music. Bob Geldof called on Indonesia to remove all pirated copies of the Live Aid concert, which he had organised to help famine victims in Ethiopia. He also requested that the government donate the money collected from a tax on tapes that had already been sold.

After the controversy, new payment systems for recorded material began to emerge. The two main models were flat pay and non-flat pay. Under the flat pay model, the producer or owner of the master tapes would receive a set fee for the purchase of the tapes, including any profits.

⁴ The historical evolution related in this section is from Kementerian Pariwisata dan Ekonomi Kreatif RI, Ekonomi Kreatif: Rencana Pengembangan Industri Musik Nasional 2015–2019 (Ministry of Tourism and Creative Economy of the Republic of Indonesia, 2014).

Artists would receive only a recording fee or a bonus if the album was successful. But many of the agreements were not recorded in writing, leading to disputes between the parties and their heirs.

To resolve the issues and curb copyright infringement, representatives from international record companies arrived in Indonesia in the 1990s. However, their presence was restricted by the government, which prompted them to join forces with local record companies. EMI collaborated with Aquarius Musikindo, Warner Music with Hemagita Tama Records, Universal Music with Suara Sentra Sejati, Sony Music Entertainment with Indosemar Sakti, and BMG with Musica Studio. Later, these international record labels were established under their own name, along with the development of the world music industry. Sony Music acquired all the shares of BMG after the two companies merged. EMI had to shut down its Indonesian office, resulting in the distribution of its catalogue between Warner Music and Universal Music. In the 1990s, several albums sold more than 1 million copies, such as Nike Ardilla's *Let Your Love Pass* (Music Plus, 1994), Yuni Shara's *Why No Sorry* (Blackboard, 1995), Junior's *Bujangan* (Billboard, 1996), Stinky's eponymous album (Buletin, 1997), and Sheila's eponymous album (Sony Music, 1999).

The advent of digital economy in the 2000s gave rise to the independent (indie) music industry, with many record labels and other players entering the market, producing music alongside the established record labels mentioned above or what are usually referred to as 'major labels'. The reason was that the major labels did not fully cater to the Indonesian music market, leaving many musicians without support. Thus, musicians began to produce their own music. As the number of musicians and their works across various genres grew, the independent music industry gained momentum, helped in part by mass media outlets such as MTV, which championed indie musicians and helped popularise their music in the wider community. A sign of indie music's success was the organisation of a competition, Indiefest, which aimed to produce an indie music compilation album. FFWD Records, an independent label from Bandung, was one of the competition's initiators. Some of the most successful indie record labels at the time included FFWD Records, Aksara Records, Sinjitos, Demajors, and Ivy Music League.

2006 was a turning point for the music industry in Indonesia, as music consumption shifted from physical products such as CDs and cassettes to digital formats. The internet has made it easier for music lovers to access and purchase music online. But cassette tapes and CDs remain popular, with some musicians still enjoying high sales. Mobile phone ringtones also became popular and were profitable for many musicians.

In the 2010s, the entry of global music services such as Nokia Comes with Music, YouTube, and Apple iTunes gave rise to a new business model. Local and foreign content aggregation and subaggregation services emerged to help Indonesian musicians distribute their works on streaming platforms such as Believe Digital, Tunecore, CD Baby, and others. Today, they provide various paid services to musicians, including recording, promotion, and local and global distribution of their music.

The digital market has changed the game and disrupted major labels by shaking up their traditional preserve. Social media has disrupted promotion, and technology and the 'do-it-yourself' approach have disrupted artists' repertoires. The internet and digital market have opened new opportunities for independent musicians and music entrepreneurs, and the market

has shifted towards aggregation. Major labels still hold an advantage because of their size, networks, established corporate sponsorship, and media contacts, but for how long will they have the upper hand? The industry is moving from a unit-based business model, which produces only a limited number of artists, to an access-based one, which is open to subscribers. Similarly, self-promotion on social media has shifted to an access-based approach.

Today, market updates are provided by the Indonesia Recording Industry Association (ASIRI) (2023), a trust established in 1978 to represent the recording industry's interests in Indonesia. Its members include 80% of active recording companies. Market updates do not include independent labels or the activities of indies, which operate on their own. The only source of information about indies is the digital platforms, which do not share their data.

ASIRI's market updates show a growing music industry, valued at US\$47,032,503 in 2019, US\$47,027,578 in 2020, and US\$61,699,644 in 2021, or an increase of 9.67% in 2020 and 19.62% in 2021. Per category, the market-size breakdown shows a net increase for audio and video streaming and a decrease for mobile phone ringtones.

The IFPI Global Music Report 2022 (Figure 2.1) ranks Indonesia 33rd, with a market size of US\$66 million and a growth rate of +16.4 (+4.6% in 2020). The IFPI report is based on information collected from major labels only, members of ASIRI, and music hub <u>ASIRINDO</u>.

Recorded music revenues by sector in 2021 (trade value) came mainly from streaming (83.3%) and downloading and other digital methods (15.0%). Physical sales (0.3%), performance rights (1.0%), and synchronisation or use of the original music (0.4%) remain marginal.

The data reflect a radical drop of CD and vinyl record sales (0.3%), whilst 1.0% for performing rights reveals a low trade value. Performing rights refer to the commercial use of songs and/or music in the form of commercial public services such as commercial seminars and conferences; restaurants, cafes, pubs, bars, bistros, nightclubs, and discotheques; music concerts; aircraft, buses, trains, and ships; exhibitions and bazaars; cinemas; private phone ringtones; banks and offices; shops; recreation centres; television broadcasting institutions; radio broadcasting institutions; hotels, hotel rooms, and hotel facilities; and karaoke businesses.

The management of performing rights—of composers, performers, and master owners and producers—has been an issue for the past 30 years with regard to royalty collection and distribution.

Figure 2.1. IFPI Global Music Report Indonesia, 2021

INDONESIA

VS. 202 GMR 2021 33 GLOBAL RANK 33

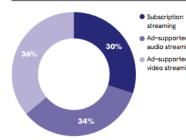
6%]

+16.4%

(75)		-							
	Source Street St			PHYSICAL 0.3% \$0.2m (+16.6%) World Ranking: 47		PERFO	DRMANCE RIGHTS	SYNCHRONISATION	
83.3%						1.0%		0.4%	
\$55.3m (+35.9%)						\$0	.6m (-36.1%)	\$0.3m (-31.0%)	
World Ranking: 31						World Ranking: 57		World Ranking: 43	
8021									
2020			_						
CORDED NUSIC REVENUES BY	FORMAT (US	MILLION,	TRADE V	ALUE)					
							Total Music Revenue	Table Dissipation Reports	
	2017	2018	2019	2020	2021	2021 YoY %	per capita (US\$)		
Subscription streaming	2017 7.9	2018 10.6	2019 13.4	2020 16.5	2021 16.8	2021 YoY % change +1.7%	per capita (US\$)	sales per capita (US\$	
Subscription streaming Ad-supported audio streaming						change	per capita (US\$)	sales per capita (USS \$0.24	
· · ·	7.9	10.6	13.4	16.5	16.8	change +1.7%	per capita (US\$) \$0.24 Year on Year	sales per capita (US\$ \$0.24 Year on Year	
Ad-supported audio streaming	7.9 2.3	10.6 4.5	13.4 7.8	16.5 12.2	16.8 18.7	change +1.7% +53.3%	per capita (US\$)		
Ad-supported audio streaming Ad-supported video streaming	7.9 2.3 8.0	10.6 4.5 8.4	13.4 7.8 11.4	16.5 12.2 11.9	16.8 18.7 19.8	change +1.7% +53.3% +65.5%	per capita (US\$) \$0.24 Year on Year	sales per capita (USS \$0.24 Year on Year	
Ad-supported audio streaming Ad-supported video streaming Streaming	7.9 2.3 8.0 18.2 2.0	10.6 4.5 8.4 23.4	13.4 7.8 11.4 32.6	16.5 12.2 11.9 40.7	16.8 18.7 19.8 55.3	change +1.7% +53.3% +65.5% +35.9%	per capita (US\$) \$0.24 Year on Year (+\$0.03) SOCIAL, ECONOMIC, A	sales per capita (USS \$0.24 Year on Year (+\$0.03)	
Ad-supported audio streaming Ad-supported video streaming Streaming Downloads	7.9 2.3 8.0 18.2 2.0	10.6 4.5 8.4 23.4 1.2	13.4 7.8 11.4 32.6 0.9	16.5 12.2 11.9 40.7 1.2	16.8 18.7 19.8 55.3 1.4	change +1.7% +53.3% +65.5% +35.9% +25.4%	per capita (US\$) \$0.24 Year on Year (+\$0.03)	sales per capita (USS \$0.24 Year on Year (+\$0.03)	
Ad-supported audio streaming Ad-supported video streaming Streaming Downloads Mobile personalisation & other digita	7.9 2.3 8.0 18.2 2.0 II 20.7	10.6 4.5 8.4 23.4 1.2 20.1	13.4 7.8 11.4 32.6 0.9 17.0	16.5 12.2 11.9 40.7 1.2 13.6	16.8 18.7 19.8 55.3 1.4 8.5	change +1.7% +53.3% +65.5% +35.9% +25.4% -37.6%	yer capita (US\$) \$0.24 Year on Year (+\$0.03) SOCIAL, ECONOMIC, A INDICATORS	sales per capita (USS \$0.24 Year on Year (+\$0.03)	
Ad-supported audio streaming Ad-supported video streaming Streaming Downloads Mobile personalisation & other digita Downloads & other digital	7.9 2.3 8.0 18.2 2.0 1 20.7 22.8	10.6 4.5 8.4 23.4 1.2 20.1 21.3	13.4 7.8 11.4 32.6 0.9 17.0 18.0	16.5 12.2 11.9 40.7 1.2 13.6 14.7	16.8 18.7 19.8 55.3 1.4 8.5 9.9	change +1.7% +53.3% +65.5% +35.9% +25.4% -37.6% -32.6%	per capita (US\$) \$0.24 Year on Year (+\$0.03) SOCIAL, ECONONIC, A INDICATORS Population (m):	sales per capita (USS \$0.24 Year on Year (+\$0.03)	
Ad-supported audio streaming Ad-supported video streaming Streaming Downloads Mobile personalisation & other digita Downloads & other digital CD	7.9 2.3 8.0 18.2 2.0 11 20.7 22.8 1.2	10.6 4.5 8.4 23.4 1.2 20.1 21.3	13.4 7.8 11.4 32.6 0.9 17.0 18.0	16.5 12.2 11.9 40.7 1.2 13.6 14.7	16.8 18.7 19.8 55.3 1.4 8.5 9.9 0.2	change +1.7% +53.3% +65.5% +35.9% +25.4% -37.6% -32.6%	yer capita (US\$) \$0.24 Year on Year (+\$0.03) SOCIAL, ECONOMIC, A INDICATORS	sales per capita (USS \$0.24 Year on Year (+\$0.03) ND TECHNOLOGY 2 Indonesian Rupiah ()	
Ad-supported audio streaming Ad-supported video streaming Streaming Downloads Mobile personalisation & other digital Downloads & other digital CD Vinyl	7.9 2.3 8.0 18.2 2.0 10 20.7 22.8 1.2 0.0	10.6 4.5 8.4 23.4 1.2 20.1 21.3 0.6	13.4 7.8 11.4 32.6 0.9 17.0 18.0 1.1 -	16.5 12.2 11.9 40.7 1.2 13.6 14.7 0.2	16.8 18.7 19.8 55.3 1.4 8.5 9.9 0.2 0.0	change +1.7% +53.3% +65.5% +35.9% +25.4% -37.6% -32.6% +15.7%	per capita (USS) \$0.24 Year on Year (+\$0.03) SOCIAL, ECONONIC, A INDICATORS Population (m): Currency:	sales per capita (USS \$0.24 Year on Year (+\$0.03) ND TECHNOLOGY	
Ad-supported audio streaming Ad-supported video streaming Streaming Downloads Mobile personalisation & other digital Downloads & other digital CD Vinyl Music video	7.9 2.3 8.0 18.2 2.0 1 20.7 22.8 1.2 0.0	10.6 4.5 8.4 23.4 1.2 20.1 21.3 0.6 -	13.4 7.8 11.4 32.6 0.9 17.0 18.0 1.1 -	16.5 12.2 11.9 40.7 1.2 13.6 14.7 0.2 -	16.8 18.7 19.8 55.3 1.4 8.5 9.9 0.2 0.0 -	change +1.7% +55.3% +55.5% +35.9% +25.4% -37.6% -32.6% +15.7%	per capita (US\$) \$0.24 Year on Year (+\$0.03) SOCIAL, ECONONIC, A INDICATORS Population (m): Currency: US\$ exchange rate:	sales per capita (USS \$0.24 Year on Year (+\$0.03) ND TECHNOLOGY Indonesian Rupiah () 14,316	

STREAMING REVENUES CY 2021

Total revenues



TOP 5 DSPS BY NUMBER OF SUBSCRIBER USERS CY 2021 (ALPHABETICAL ORDER)

57.0

66.3

Apple Music		
YOOX		
Langit Musik		
Spotify		
YouTube		

Median Fixed internet line speed (Mbps): 20.1 (+25.1% vs 2020) Median Mobile internet speed (Mbps): 15.8 (+27.4% vs 2020) Smartphone penetration rate: 69% Mobile connections at 3G to 5G: 96.7% TNDUSTRY INFORMATION

INDUSTRI INFORMATION
Chart compiler and publisher information:
BMAT
www.bmat.com
Performance rights music licensing company:
ASIRINDO/SELMI
www.asirindo.org / www.selmi.id
National recording industry association:
ASIRI
www.asiri.co.id

Source: International Federation of the Phonographic Industry (2022).

43.9

47.9

54.5

Initially collected since 1991 by Yayasan Karya Cipta Indonesia, a composers' collective, license fees are now collected from commercial consumers by the National Collective Management Organization (LMKN), which then redistributes the royalties to the different collective management organisations (LMKs or CMOs) based on the following arrangement: 50% for composers, 25% for performers, and 25% for master owners or producers. The CMOs then distribute the royalties amongst members after retaining 20% for operational costs, shared equally by LMKN and CMOs.

The formal structure of LMKN and CMOs was defined by Copyright Law No. 28 of 2014, under which CMOs are non-profit and must obtain an operational license from the minister of law and human rights by fulfilling certain requirements.

The lack of distribution rules has resulted in disputes regarding the payment of royalties within the CMOs, which still use the portion-agreement system between members. To resolve the issue, Law Number 56 of 2021 on Management of Royalties for Songs and/or Music Copyright was passed in March 2021 to provide protection and legal security for creators, copyright holders, and owners of the economic rights of songs and/or music, as well as any person who makes commercial use of songs and/or music, especially to clarify what is meant by commercial public services that are subject to copyright royalties. The law was enacted to optimise the management function of copyright royalties for the use of works and related rights products in the field of songs and/or music. The regulation stipulates that royalties should be managed by LMKN based on integrated data in a song and/or music data centre. The minister should record the license agreement in accordance with the provisions of laws and regulations. The provision of the license is accompanied by the obligation to provide reports on the use of songs and/or music to LMKN through the Songs and/or Music Information System. The regulation, however, is being revised due to disagreements from LMKN and CMOs over two provisions contained in the regulation: (i) the fact that development cost for information technology should be paid by performers' rights royalties, and (ii) the private company appointed to run the technology.

LMKM and CMOs argue that both the database and the music information system are of public interest and should be funded by the government. They do not want to be trapped in corporate decisions on copyrights. They propose that the technology operator work as a sub-contracted operator and be selected according to transparent procedures.⁵

Wahana Musik Indonesia (WAMI), a CMO, has invested in a music data system that enables it to store music metadata and to better process distribution. It helps increase WAMI's membership as it traces artists whose music is played in public places but are not yet registered with any CMO.

Today, LKMN covers 20% of the 514 cities in Indonesia and collects payment of copyright royalties from commercial public services, but law enforcement issues arise if a commercial consumer does not pay.⁶ Technology would help resolve the issue and improve royalty distribution. A music database is key for payment of streaming royalties because the business model for music streaming differs from previous arrangements, by which the royalty paid to songwriters and performers was a percentage of sales. The music database will be the basis for determining the economic value of a piece of music as it has complete and precise information on how much, to whom, and how the copyright or royalties will be distributed. Copyright provides not only a basis for determining economic value but also protection for a work of music (WIPO, 2015; Andersen and Kozul-Wright, 2000).

Proper management of music industry data will lead to increased potential gains from the payment of the rights described above. Royalty revenue will contribute to the music sector's

⁵ Personal communication from LMKN and CMO representatives and members.

⁶ Personal communication from a representative of LMKN.

growth and to employment in related industries. It will build artists' confidence in the ecosystem and in music as a business. Equally important, it will facilitate the integration of independent artists and highlight their contribution to the music sector.

Current growth and market size estimates are biased by the lack of information about the indie movement and niche music contribution to creative economy, and by revenue generated from live performances, one of the main sources of income throughout the archipelago all year long. Artists say live performances are their most important source of income. For example, WAMI collected IDR955,538,136 or about US\$65,000 from 95 live events in 2022, representing 2% of the total value of the events or IDR47,777,906,800 or about US\$3,220,000.⁷

According to the mapping music sector ecology research (British Council, 2020), 'Indonesia has experienced an exponential development in its music industry within the past few years, with the arrival of new, hot-shot bands, emerging spaces where music-based communities gather, and a host of highly conceptual music festivals. The breadth of potential demonstrated by the Indonesian music industry is further boosted by the sheer enthusiasm of its youth, easily the country's biggest demographic. Amongst the most thriving music ecosystems in Indonesia is, without a doubt, its independent scene'.

Digital distribution of sound recordings via platforms has broken the established royalty deals based on sales, as streaming has become an increasingly dominant mode of access to music. Potential growth of the music sector should be looked at from the standpoint of the musician and not of the major label industry only, because musicians as composers and master owners are important contributors to the economy and a source of growth. Musicians' options used to be conditioned by contracts with major labels. But today, with the changing structure of the music industry, success depends on musicians' entrepreneurial spirit, i.e. their capacity to motivate themselves to fulfil their potential, and their willingness to adapt and learn how to profit from music in ways besides live performances. Musicians' understanding of how and where they can earn and manage money and with which key actors they should work is essential. Publishers are important as most songwriters grant to them all their rights, including mechanical, performing, synchronisation, and printing rights, which publishers use to allow CMOs to collect royalties for composers and songwriters. The arrangement makes music data management and music information systems even more important, as they ensure accurate royalty distribution for performing rights as well as mechanical rights paid by digital platforms and social media via publishers and aggregators.

2. Gaming Sector

The gaming industry in Indonesia is just over 20 years old but has produced many games that promote the country. The industry started in the late 1990s with Matahari Studios, which, according to Kris Antoni Hadiputra (Game Developer, 2020), founder of Toge Productions, was regarded as the grandfather of Indonesia's game development scene. The studio built an online community forum where game developers all over Indonesia could share knowledge, showcase games, and learn from each other. Game developers eventually started their own studios, and

⁷ WAMI personal communication from the director general.

the gaming community grew. Hadiputra's essay, 'Decade Retrospective: Indonesian Games 2010–2020' (Game Developer, 2020), provides an interesting glimpse into the evolution of the gaming sector.

Three phases marked the development of the industry:

• 1999–2011: A Glorious Start

The period was a time when game developers were learning by making different types of games for outsourced projects. The main driver was Flash games and their sponsoring business, which enabled Indonesian developers to create games and earn a living from webbased games. The way it worked was simple: games were free, but for a fee, game creators would let several bidders put their logo and a link to their website. Sponsors would pay big money for licences and sponsorships to grow their audience using Flash games uploaded on a few big sites that would then propagate to hundreds or even thousands of smaller sites to be played by a potential audience of millions (Doucet, 2021). Many started their own studios and released successful games that were played worldwide. The Epic War series from Artlogic games, the Infectonator and Necronator series from Toge Productions, the Valthirian Arc series from Agate, and many more filled game developers with passion and pride. According to the 2010–2012 Flash Game Market Survey by the now-defunct Mochi Media, Indonesia was amongst the top-10 countries for Flash game production. More than 100 indie teams or studios were born around this time in Indonesia. Web-based gaming portals such as Newgrounds, Armor Games, and Kongregate gained visibility and revenue from millions of players worldwide. Flash provided game developers with not only a stable income but also a space for learning and experimentation. The conditions were perfect for the gaming industry ecosystem to grow and flourish. Small studios soon became medium-sized companies and expanded to include mobile games (Game Developer, 2020).

2011–2015: Brave Soldiers

2011 was the beginning of the end for Flash, and with it the end of revenues from advertisements.

The price of game engines became more affordable with UNITY software, which encouraged game developers to turn to mobile and PC games. Mobile was predicted to be the new potential market.

Those years saw the birth of a few studios and mobile games that became international hits, such as *Icon Pop Quiz, Tebak Gambar, Mini Race Adventure,* and *Tahu Bulat*. Despite the successes, however, some developers could not continue their activities and were forced to close down. B2B services and game outsourcing became the solution to stay in the business.

In 2013, AGI was created to help grow the community and connect the gaming industry with the government. The same year, Steam was making it easier for indie developers to publish their games on their distribution platform, giving new hope to Indonesian game developers. Digital Happiness Studio seized its chance and raised funds via the Indiegogo crowdfund platform and released a game that remains one of the most successful in Indonesia.

2016–Present: Determination

Steam provided game developers with an alternative to the crowded mobile phone market. Game developers began releasing their games to consoles. The first Multiplayer Online Battle Arena was made in Indonesia and became available for open beta in 2020, further diversifying Indonesia's offerings. Great Indonesian games are making their way to the top, with releases on Steam such as *Coffee Talk* by Toge Productions, *My Lovely Daughter* and *My Lovely Wife* by Gamechanger, and on Google Play with *Selera Nusantara* by Gambir Studio. According to VirtualSEA (Twitter, 2019), by 2019, more than 60% of all Southeast Asian Games on Steam are from Singapore and Indonesia.

The gaming industry received support from the government in the form of grants and exposure trips to international exhibitions and events, enabling game developers to feature local games at international expos, develop networks, establish contacts with publishers, and promote Indonesian skills for outsourced projects.

The local game industry, although growing fast, with a compound annual growth rate of 51%, is still considered small (<u>AGI</u>). In 2020, it was estimated to have received US\$8.64 million or 0.49% of the market. Its growth is estimated to maintain year-over-year growth of 51% and reach US\$67.8 million or 2.4% of the US\$2.79 billion industry by 2025. The growth strategy is guided by a 'push and pull' vision that simultaneously uses a bottom-up approach to build talent and organic scaling up, and top-down industry development through talent creation and start-ups. The objective of the gaming industry is to grow 12 times bigger than it was in 2020 by 2024–2025 and to generate annual revenue of US\$100 million through increased production.

Effort and investment go into creating talents, improving quality, and offering funding and mentoring programmes such as Agate Skylab, Telkom Indigo Incubator, and Toge Grant. Agate and AGI actively improve education programmes for game developers through universities and vocational colleges, as talent is still insufficient. Local game companies cannot compete with large foreign game companies, and schools and universities provide courses adapted to the industry's needs. Game studios either invest in training or take on side projects to level up their teams' skills by learning by doing.

Predicted growth is based on sales revenue and does not consider the process and the harsh reality of competing globally or the cost involved in creating a game.

Interviews with game developers reveal that developing and releasing a game do not guarantee success. Games are often not profitable. Table 1 provides an example of the performance of a small sample of PC games on Steam, with or without the support of a publisher. The comparative US\$100,000 threshold reference is used as the average cost of production for a medium-sized PC game made in Indonesia, serving as a breakeven reference point.

Table 2.1. Distribution of Game Revenue in Relation to Publisher or Self-publishing

> US\$100,000 with Publisher	< US\$100,000 with Publisher	> US\$100,000 Self-published	< US\$100,000 Self-published
Coral Island	Ghost Parade	Coffee Talk	DreadEye VR
Potion Permit	Rising Hell	DreadOut	Azure Saga: Pathfinder
Space for the Unbound	Ultra Space Battle Braw	DreadOut 2	Forged of Blood
When the Past was around	She and the Light Bearer	DreadOut: Keepers of the Dark	Orbiz
My Lovely Daughter	Rage in Peace	Legrand Legacy: Tale of the Fatebounds	A Day Without Me
My Lovely Wife	MagiCat		Babol the Walking Box
Necronator:Dead Wrong	Run Roll Rumble		Lobster Empire
Infectonator 3: Apocalypse	Valthirian Arc: Hero School story		Perang Laut – Maritime Warfare
	Valthirian Arc: Hero School Story 2		Oracle of Forgotten Testament
	Celestian Tales: Realms Beyond		Lastone: Behind the Choice
	Celestian Tales: Old North		
	Motte Island		

Source: Author, based on sample distribution based on STEAM Revenue Calculator and public information in 2023.

Of the 35 games listed, 13 are financially successful and 22 are not. Although more successful games were released with a publisher, the difference between the unsuccessful self-published games and those with a publisher is not striking. Thus, a publisher does not guarantee success.

Revenue growth is attributed to the value of the successful games and does not consider the unsuccessful ones. We can conclude that the evolution of Indonesian games consists of success stories. Future studies are required to analyse net revenue calculated in relation to production cost of all games released on Steam, including the unsuccessful ones. The industry is still finding its place amongst a huge global offering of games. Whilst the successful games may keep young game developers' spirit and determination alive, developing games remains challenging (Table 2.1). The question is: How do game developers manage to survive?

Multiplying the number of games by a percentage of those that might succeed gives the impression that, in the long run, the sector will be healthy. In reality, however, many studios could be facing difficulties or are growing slowly.

The next chapter analyses the livelihood of game developers to gain insight into how their capacity can be further developed and complement the current strategy. The next chapter also explores the economic life of musicians in the digital era.