



Fees applied by distribution platforms to transactions by developers and content providers

Benchmark study

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Executive Summary

The rise of digital platforms has changed the way we consume and distribute products and services in a great number of industries. In particular, since the introduction of mobile apps and app stores in the late 2000s and the spread of connected devices, platforms help distribute products, apps and digital content on a wide range of devices. This report presents a benchmark of fees applied by selected app and content distribution platforms to developers and content providers. It recalls the importance of considering the role of the two-sided nature of these platforms, the services they provide and the different criteria they use to set their fees when doing a comparative analysis.

The selected app and content distribution platforms are the following:

Amazon Prime Video Direct	Huawei AppGallery	Samsung Galaxy Store
Amazon Appstore	Kindle Direct Publishing	Sony PlayStation
Apple App Store	Kobo	Soundcloud
Audible	Microsoft Store	Spotify
Deezer	Microsoft Xbox	Steam
Epic Games Store	Nintendo Switch	
Google Play Store	ONE Store	

Our benchmark study does not purport to be exhaustive. However, we believe it provides a rigorous overview of fees and services of selected platforms from public sources. It comprises a sample of well-known app stores, consoles and digital content platforms. It is the result of our best efforts to study the existing public information of relevance to our report.

Our research presents different types and levels of distribution fees applicable to transactions of developers and content providers and highlights the following aspects:

- Economic literature analyzes platforms under the concept of “two-sided markets”¹ and refers to them as “two-sided platforms”, where network effects play a significant role: the utility of users

on one side of the platform depends, in part, on the number of participants on the other side of the platform.

- The success and sustainability of two-sided platforms depend on their ability to attract users and generate benefits for both sides of the platform. Appropriate pricing mechanisms are necessary to incentivize investment and sustain these benefits.
- Platforms use different pricing strategies, usually applying two types of fees: registration and service fees (hereafter together referred to as “distribution fees”).
- The analysis of distribution fees should take into consideration that, on top of distribution services, platforms can invest to provide different types and levels of services to users on both sides of the platform, such as security, development/

performance/marketing tools, technical support, and billing/payment systems². Some platforms may also use these fees to help support the broader ecosystems in which they operate.

The main benchmark results can be summarized as follows:

Registration fees

Our research identified registration fee information for 9 out of 19 platforms.

Among them, the majority apply a registration fee (including Apple App Store, Google Play Store, Microsoft Store, Microsoft Xbox, Soundcloud and Steam).

- One-off payment: Google Play Store applies a one-off registration fee of \$25 per developer, while Microsoft Store and Xbox both apply a \$19 one-off fee for individuals and a \$99 one-off fee for companies. Steam applies \$100 each time the developer wishes to distribute a new app (recoupable after the product makes at least \$1,000.00 Adjusted Gross Revenue for Steam Store or in-app purchases).
- Recurring payments: Apple App Store charges \$99 per year per developer, Soundcloud offers free registration, or charges between €2.5 and €5.5 per month depending on the program (i.e. €30 and €66 per year, respectively).

Service fees

Services fees vary from 5% to 80% of developer and/ or content provider revenues. Platforms generally charge different levels of service fees, depending mainly on the content type, developer's revenues, exclusivity of content, the use of developer's own or third-party billing/ payment systems and the developer's monetization strategy. A single platform can apply between one and five distinct service fees.

Out of the 19 platforms studied, 68% apply a 30% service fee.³ Four apply a single 30% rate to all content providers (Deezer, Nintendo Switch, Samsung Galaxy Store and Sony PlayStation), while the others additionally apply lower or higher rates depending on the different criteria mentioned above (e.g., the developer's revenues, monetization strategy, or billing/ payment system).

At the lower end of the spectrum, some platforms have service fee offerings below or equal to 15% (Apple App Store, Epic Games Store, Google Play Store, Microsoft Store and Xbox and ONE Store). ONE Store and Google Play can apply service fees as low as 5% to 10%.

At the higher end of the spectrum, a few platforms charge service fees greater than or equal to 50% (Amazon Prime Video Direct, Audible, Kindle Direct Publishing, Kobo and ONE Store). Audible and Kobo charge the highest service fees, between 75% and 80%, depending on the specificities of the content/apps.





1. Apps and content distribution: the rationale behind distribution fees

Before presenting the app and content distribution fees benchmark (Section 2), this section explores the rationale for charging distribution fees. First, we analyze the operation of platforms from an economic theory perspective (1.1). Second, we highlight that the success and sustainability of platforms depend on their ability to generate benefits for both sides of the market (1.2). Finally, we highlight that appropriate platform pricing mechanisms are necessary to sustain the benefits they provide and guarantee their continuity (1.3).

1.1 The role and operation of two-sided platforms

The rise of digital platforms has changed how we consume and distribute products and services in a great number of industries. For instance, software applications (apps) and digital content were traditionally sold on physical media at brick-and-mortar stores. Today, after the introduction of mobile apps and app stores in the late 2000s, but also with the spread of connected devices (Internet of Things or “IoT”), apps and content are purchased mainly through digital platforms, on a wide range of devices (smartphones, game consoles, connected televisions, etc.).

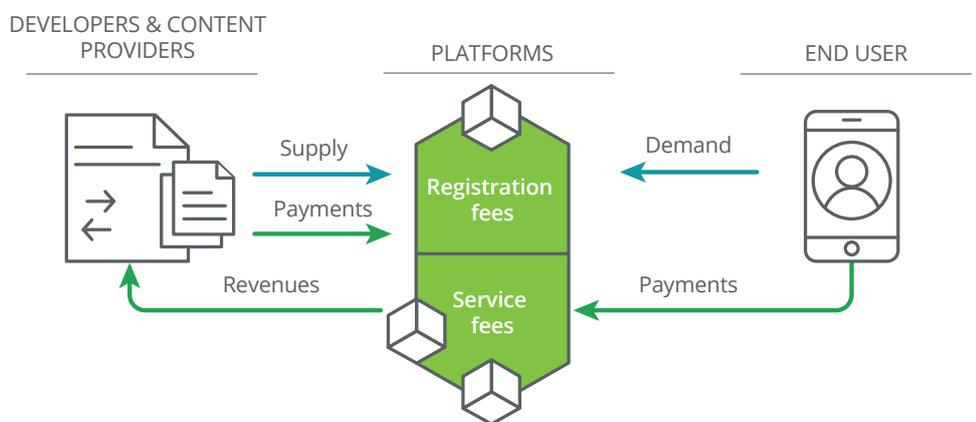
Economic literature analyzes platforms under the concept of “two-sided markets” and refers to them as “two-sided platforms”. It highlights the presence of cross-side network effects as one of their central aspects, meaning that the utility of users on one side of the platform depends on the number of participants on the other side of the platform.

In the app and digital content realm, platforms play a key role as intermediaries between consumers on one side, and developers (or content providers) on the other side.

They seek to bring together users on both sides of the platform and meet their needs by facilitating numerous and seamless transactions.

The following figure illustrates the role of platforms in connecting the two sides of app and content platforms.

Figure 1. Two-sided platforms and their intermediary role



Key heading

- Financial flows
- Content flows
- Benchmark study

Source: Deloitte Finance

Developers and content providers deliver content that is accessed by end-users through the platform (blue arrows in Figure 1). Usually, developers are initially charged a registration fee to distribute their content through the platform. Developers can also be charged an additional service fee when users pay to access content/apps (green arrows in Figure 1).

In general, when users pay to access content/apps, the platform retains a portion of this revenue before transferring the remaining revenue to the developer or content provider. Registration and service fees, which we will call hereafter “distribution fees”, are the focus of the benchmark presented in this report. These distribution fees cover services provided by the platform to both sides of the platform (see section 2.3).

1.2 The success and sustainability of platforms depend on their ability to generate benefits for users on both sides of the platform

As mentioned in the previous section, platforms are characterized by the presence of cross-side network effects: the utility derived from participation on one side of the platform is directly related to the number of participants on the other side. Due to these network effects, the value and size of both sides brought together by the platform are interdependent.

Economists have studied the externalities of two-sided markets and identified benefits platforms can offer to both the supply and demand sides.⁴ The following table provides examples of these benefits with a focus on app and digital content distribution platforms.⁵

The success or failure of platforms therefore depends on their ability to generate such benefits and value for both sides of the platform.

Table 1. Examples of benefits provided by platforms

Benefits for developers/ content providers	Benefits for end-users
They create trust capital for developers ⁶ (e.g., end-users can rely on the platform’s vetting processes and security protocols)	They reduce transaction and research costs by allowing users to quickly and cheaply discover apps/content through a single platform ¹⁰
They reduce transaction costs (e.g., by providing ready to use interfaces for integrating advertisements into apps, usually combining technology management and payment) ⁷	They curate / promote / rank content based on relevance, quality and other performance metrics
They facilitate entrance to markets and opportunities for growth by enabling fast and inexpensive access to end-users ⁸	They promote the production of innovative, high-quality content as the presence of network effects pushes developers to innovate to attract new users ¹¹
They reduce app and content production costs by benefiting from economies of scale and efficiency gains (costs are spread across a large customer base) ⁹	They provide a secure browsing and purchasing environment
They facilitate purchases in multiple local forms of payment	They provide centralized customer support and purchase management
The current configuration of many platforms allows for multi-platform and multi-device distribution	They provide content-specific information and reviews in a consistent format
They enable different strategies for monetization of apps, content, and services	

Source: Deloitte Finance

1.3 Benefits provided by platforms are sustained by several pricing mechanisms: focus on developer monetization strategy

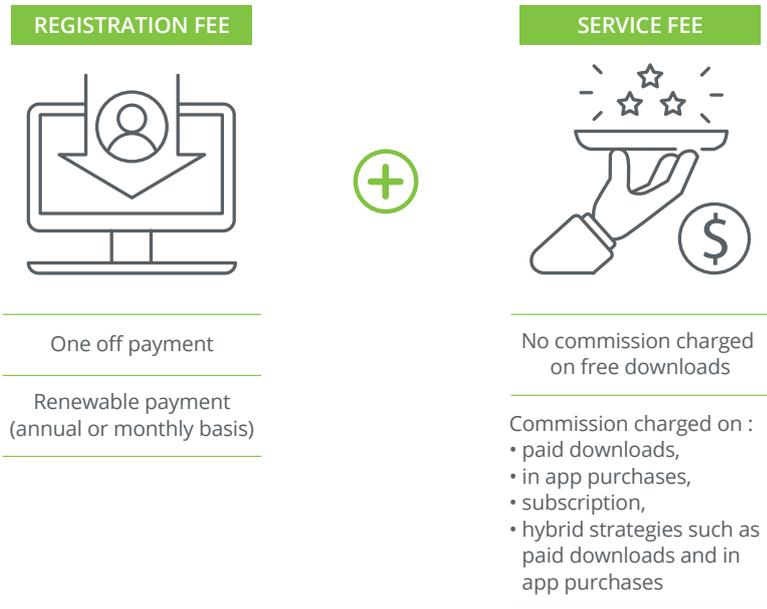
The economic literature underlines the complexity of platform pricing decisions in the presence of cross-side network effects. The pricing strategy on one side of the platform may affect not only participation and demand on that side, but also participation on the other side.

For instance, depending on the monetization strategy chosen by the developers, platforms apply different fees or may apply no distribution fee at all. In the case of app stores, according to information from Statista, as of November 2022, 94.2% of all iOS applications on the App Store¹², 82% of Android applications on Amazon Appstore¹³, and 97% of Android applications on Google Play¹⁴ could be downloaded free of charge.¹⁵ For the distribution of these free apps, App Store and Google Play charge developers a registration fee but no service fee, while Amazon Appstore does not charge any registration or service fees. When developers charge consumers for their apps or content purchased therein, platforms may charge developers a service fee (see Section 2.2.2 for details). For instance, only 3% of developers distributing their apps through Google Play are subject to service fees.¹⁶

In the presence of cross-side network effects, free apps or content on one side of the platform and free or low distribution fees on the other side of the platform raise the value of the platform for both sides.

Figure 2 illustrates the two common components of fees charged by distribution platforms (registration and service fees) and the form they may take.

Figure 2. Overview of categories and structure of distribution fees



Source: Deloitte Finance

Registration fees, when applied, are paid once or periodically (monthly or annual). Service fees generally take three forms: service fees on paid downloads, service fees on purchases made in-app and service fees charged on recurring subscription purchases.

Platforms adopt these fee structures to help sustain investments in the platform and the benefits they provide, while also trading-off the cross-side network effects affecting the value of the platform.



2. Benchmark of app and content distribution fees



2.1 Scope and methodology

The benchmark in this report covers a list of nineteen app and content distribution platforms. The list is not intended to be exhaustive. It comprises a sample of well-known app stores, consoles and digital content platforms.

Our research methodology consisted in collecting data and information from publicly available sources. First, we prioritized official public sources (platform's own websites, including service agreements, general terms and conditions of use, etc.). Then, when no official information was found, we considered non-official public sources (e.g. specialized press articles).

Non-official sources are flagged in the report and concern only two platforms out of nineteen (Nintendo Switch and Sony PlayStation).

The Executive Summary presents the list of platforms included in the benchmark in alphabetical order. Tables 4 and 5 in the Appendix report specific sources of information for fees and services respectively.

2.2 Benchmark

2.2.1 Overview of distribution fees

Before discussing platform distribution fees in detail, this section presents an overview of the range of fees applied. Among the platforms included in our

analysis for which information was available, registration fees take the form of a one-off payment or a recurring payment. One-off payments range between zero (free) and \$100. Recurring payments are between \$30 and \$99 per year.

Services fees (commission-based) vary from 5% to 80% of revenues and platforms generally position in several fee ranges at the same time¹⁷. A single platform can apply between one and five distinct service fees. The following figure illustrates the position of platforms in these ranges.

Figure 3. High-level overview of platform service fees

Platforms	Service fees (%)															
	(0,5]	(5,10]	(10,15]	(15,20]	(20,25]	(25,30]	(30,35]	(35,40]	(40,45]	(45,50]	(50,55]	(55,60]	(60,65]	(65,70]	(70,75]	(75,80]
Amazon Prime Video Direct										50%						
Amazon Appstore				20%	25%	30%										
Apple App Store			15%			30%										
Audible											60%			75%	80%	
Deezer						30%										
Epic Games Store			12%													
Google Play Store		10%	15%			30%										
Huawei AppGallery				20%		30%										
Kindle Direct Publishing						30%							65%			
Kobo						30%					55%		65%	68%		80%
Microsoft Store			12-15%			30%										
Microsoft - Xbox			12-15%			30%										
Nintendo Switch						30%										
ONE Store	5%	6-10%		20%						50%						
Samsung Galaxy Store						30%										
Sony PlayStation						30%										
Soundcloud				20%												
Spotify								33%								
Steam				20%	25%	30%										

Source: Deloitte Finance

Out of the 19 platforms studied, 68% (13 platforms) apply a 30% service fee.¹⁸ Four platforms apply a single 30% rate to all content providers (Deezer, Nintendo Switch, Samsung Galaxy Store and Sony PlayStation), while the others additionally apply lower or higher rates depending on different criteria (e.g., the developer's revenues, monetization strategy, or billing/payment system).

At the lower end of the spectrum:

- Six platforms offer service fees below or equal to 15%, namely Apple App Store, Epic Games Store, Google Play Store, Microsoft Store and Xbox and ONE Store. ONE Store and Google Play can apply service fees as low as 5% to 10%.
- Five platforms offer service fees of between 20% and 25%, namely Amazon Appstore, Huawei AppGallery, ONE Store, Soundcloud and Steam.

At the higher end of the spectrum:

- Five platforms offer service fees greater than or equal to 50%, namely Amazon Prime Video Direct, Audible, Kindle Direct Publishing, Kobo and ONE Store. Audible and Kobo charge the highest service fees, between 75% and 80%, depending on the specificities of the content/apps.

2.2.2 Detailed analysis of distribution fees

Table 2 (page 13) presents a detailed breakdown of distribution fees charged by platforms covered by this study.

Registration fees

Our research identified registration fee information for 9 out of 19 platforms. Among them, the majority apply a registration fee (including Apple App Store, Google Play Store, Microsoft Store, Microsoft Xbox, Soundcloud and Steam).

Google Play Store applies a one-off registration fee of \$25 per developer, while Microsoft Store and Xbox both apply a \$19 one-off fee for individuals and a \$99 one-off fee for companies. Apple App Store charges \$99 per year per developer, Soundcloud offers free registration or charges between €2.5 and €5.5 per month depending on the program (i.e. €30 and €66 per year, respectively) and Steam applies \$100 each time the developer wishes to distribute a new app (recoupable after the product makes at least \$1,000 Adjusted Gross Revenue for Steam Store or in-app purchases).

Service fees

Some platforms have chosen to apply a single service fee regardless of the developer's content, revenue, or monetization strategy. For instance, Samsung Galaxy Store always applies a 30% service fee to developers. This is also the case for Deezer, which applies a 30% service fee to all rights holders and Epic Games Stores, which applies a 12% service fee to all content providers.

Other platforms have chosen to vary fees applied to the transactions of developers or content providers depending on different criteria.

Developer's monetization strategy

Some platforms set service fees depending on the developer's monetization strategy. For example, Apple applies a 30% fee to developers who offer apps with auto-renewable subscriptions in the first year of paid-subscription and a 15% fee thereafter, while Google Play Store charges a 15% service fee to all developers who offer automatically renewing subscriptions.

Kobo applies a 68% fee for subscriptions to Audiobooks.

Developer's revenue

Platforms may also apply fees depending on the revenue generated by the developer or the content provider. For instance, Google Play Store applies a 15% fee for the first million dollars earned by developers each year, increasing to 30% of revenue for one million dollars and above. Apple App Store also applies a 15% fee if the revenue generated by the developer the previous year is lower than \$1M and 30% otherwise, while Steam has chosen a regressive scale, applying fees of 30% up to \$10M, then 25% fees up to \$50M, and finally 20% fees from \$50M earnings onward.

Developer's content type

The content type provided through the platform can also be subject to different levels of service fees. For example, Apple charges 15% for its Apple News Partner and Video Partner programs. Amazon Appstore charges 20% for movies and TV apps, and 25% for other subscription-based apps. Huawei AppGallery applies a 20% fee for education apps, while it charges a 30% fee for other types of apps. Microsoft Store (PC) charges a 12% fee for games and a 15% fee for apps on Windows 10 and Windows 11. Google Play Store applies service fees as low as 10% to developers distributing e-books and on-demand music streaming services.

Developer's use of their own billing/payment system

Some platforms also charge different fees depending on developers' use of their own (or third-party) billing/payment system. For instance, ONE Store charges 5% to developers with their own billing/payment system. Google Play proposes a 3% to 4% reduction in service fees when mobile or tablet users pay through an alternative billing system than Google Play's, depending on the geography and program the developer participates in.

Exclusive content

Differences in fees can also be due to exclusive content. For example, Audible charges 60% fees for exclusive content on Audible, Amazon and iTunes (in partnership with Apple), while it charges 75% for non-exclusive content.

Negotiable fees

Finally, some platforms offer negotiable fees. For instance, while Samsung Galaxy Store applies a 30% service fee, they specify that "an alternative revenue share rate may be established upon mutual written agreement". Spotify applies service fees of roughly 33% on average, though agreements differ with each rights holder.

Table 2. Benchmark of fees applied by platforms

Platform	Registration fee	Service fee²¹
Amazon Prime Video Direct	Not identified	<ul style="list-style-type: none"> • 50% for all content providers
Amazon Appstore	Free	<ul style="list-style-type: none"> • 20% for under \$1M in revenue in the prior calendar year; and for subscription-based movies & TV apps • 25% for other subscription-based apps • 30% for \$1M or more in revenue in the prior calendar year²²
Apple App Store	\$99 (per year, per developer)	<ul style="list-style-type: none"> • 15% for under \$1M in sales proceeds in the prior calendar year; for new developers; for subscriptions after one year²³; and for specific programs²⁴ • 30% for \$1M or more in sales proceeds in the prior calendar year and for subscriptions during first year
Audible	Not identified	<ul style="list-style-type: none"> • 60% if exclusive content on Audible, Amazon and iTunes²⁵ • 75% if non-exclusive content on Audible, Amazon and iTunes²⁶ • 80% if opt into Royalty share^{27,28}
Deezer	Not identified	<ul style="list-style-type: none"> • 30% for all right holders
Epic Games Store	Not identified	<ul style="list-style-type: none"> • 12% for all content providers²⁹
Google Play Store	\$25 (one time, per developer)	<ul style="list-style-type: none"> • 15% or less for developers eligible for the Play Media Experience program³⁰ (as low as 10% for e-books and on-demand music streaming services) • 15% for under \$1M in earnings per year; and for subscription-based apps³¹ • 30% for \$1M in earnings or more per year • 3% to 4% reduction in service fee when users pay through an alternative billing system
Huawei AppGallery³²	Not identified	<ul style="list-style-type: none"> • 20% for education apps • 30% for gaming and other apps
Kindle Direct Publishing	Not identified	<ul style="list-style-type: none"> • 30% or 65% for all content providers depending on the territory and whether the book is in the public domain^{33,34}
Kobo	Not identified	<ul style="list-style-type: none"> • 30% - 80% of the list price for eBooks: 30% if eBook's price is greater than or equal to a threshold; 55% if price is lower than a threshold; 80% if eBook is in the public domain • 55% - 68% of the list price for Audiobooks: 55% if a-la-carte purchase and price is greater than or equal to a threshold; 65% if a-la-carte purchase and price is lower than a threshold; 68% if subscription^{35,36}
Microsoft Store	<ul style="list-style-type: none"> • Individual: \$19 • Company: \$99 (one time, per developer) 	<ul style="list-style-type: none"> • 12% for games on Windows 10 and Windows 11 • 15% for apps on Windows 10 and Windows 11 • 30% for apps and in-app products acquired using Windows 8
Microsoft - Xbox	<ul style="list-style-type: none"> • Individual: \$19 • Company: \$99 (one time, per developer) 	<ul style="list-style-type: none"> • 12% for games with subscription • 15% for apps with subscription • 30% for all non-subscription games and apps; and for in-app products
Nintendo Switch	Free	<ul style="list-style-type: none"> • 30%³⁷
ONE Store	Not identified	<ul style="list-style-type: none"> • 5% for developers with their own payment system • 6% or 10% for developers eligible for the Media Content program³⁸ • 20% for developers using the ONE Store payment system • 50% for developers using the ONE Store payment system; and using the discount method provided by the store³⁹

Platform	Registration fee	Service fee ²¹
Samsung Galaxy Store	Free	• 30% for all developers (negotiable)
Sony PlayStation	Not identified	• 30% ⁴⁰
Soundcloud	<ul style="list-style-type: none"> • Free • €2.5 • €5.5 depending on the program (Per month, per content provider)	• 20% ⁴¹
Spotify	Not identified	• Roughly 33% of every dollar made from music on Spotify ⁴²
Steam	\$100 (Per app) ⁴³	<ul style="list-style-type: none"> • 20% for \$50M of earnings or more • 25% between \$10M and \$50M of earnings • 30% under \$10M earnings⁴⁴

Source: Deloitte Finance analysis based on publicly available information⁴⁵

2.3 Platform services

It is also important to recognize that platforms may make different investments and offer different types and levels of service to which distribution fees are intended to contribute. Platforms usually offer at least some of the following services to developers and end-users: security, development/performance/marketing tools, technical support and billing/payment systems.

The vast majority of platforms covered in this report mention security as one of their main features. For example, Google emphasizes this aspect of its Google Play Store platform which reviews apps in order to ensure that they comply with several security and privacy policies.

A wide range of tools are also typically provided by platforms. For instance, Google Play Store and Apple App store provide developers with technical support, numerous developer tools and performance analytics. Kobo supports content providers with translation and marketing tools. Amazon Prime Video Direct, Sony PlayStation, Deezer and Spotify are examples of platforms offering analytics and promotional tools.

Moreover, most platforms have developed their own billing/payment systems to lower development costs for developers and facilitate secure transactions for both sides of the platform. For example, Amazon manages end-to-end purchase flow, payment processing, and receipts. Apple App Store, Google Play Store, ONE Store and Samsung Galaxy Store offer various forms of payment to end users.

Some platforms offer multi-platform and multi-device distribution (e.g. Amazon Prime Video Direct, Amazon Appstore, Apple App Store, Audible, Google Play Store, Epic Games, Huawei AppGallery, Microsoft Store, Microsoft Xbox and Steam). For example, Amazon Appstore distributes on Fire TV and tablets as well as select Windows 11 devices.

Finally, platforms may support wider investments through the fees they apply. For example, Google Play Store service fees help sustain the Android operating system as open source and free. Google explains that this has supported the growth of the entire mobile ecosystem. Microsoft has also explained that *“the console gaming business is traditionally a hardware subsidy model.*

Game companies sell consoles at a loss to attract new customers. Profits are generated in game sales and online service subscriptions.” (Washington Post - May 7, 2021)

Table 3 in the Appendix presents detailed examples of the main features and services offered by platforms covered in this study.

Conclusion

This report presents an overview of fees applied by selected platforms to transactions by developers and content providers. It highlights the two-sided nature of platforms, the role of network effects and the existence of investments and services underlying platform's pricing strategies.

Our analysis shows that in general, platforms make available large volumes of applications and content to download for free (except for relatively small registration fees). For paid downloads, in-app purchases and subscriptions, platforms apply service fees and it is common to only charge service fees to a subset of developers whilst keeping registration fees low to non-existent, reflecting the desire to keep barriers to entry low.

Our research identified registration fee information for 9 out of 19 platforms. Among them, 6 apply a registration fee, which takes the form of one-off or recurring payments. They range between \$19 per individual one-off and \$99 per year per developer.

Services fees are common across all the platforms studied, reflecting this as a common business model for distribution platforms. They vary from 5% to 80% of developer and/or content provider revenues. Specific levels depend on different factors, such as the content type, developer's revenues, exclusivity of the content, the use of developer's own or third-party billing/payment systems and the developer's monetization strategy.

Most platforms included in our benchmark (13 out of 19) apply a 30% service fee.

Four apply a single 30% rate to all content providers, while others additionally apply lower or higher rates depending on different criteria.

At the lower end of the spectrum, some platforms have service fee offerings below or equal to 15%. At the higher end of the spectrum, some platforms charge service fees greater than or equal to 50%.

Registration and service fees go toward the provision of different types and levels of services across platforms that benefit users on both sides of the platform. Examples of such services are safety and security checks, billing/payment systems and development, performance and marketing tools.





Appendix

Table 3. Examples of services provided by platforms

Platform	Examples of main services promoted by platforms
Amazon Prime Video Direct	<p>Multi-platform and multi-device distribution: Titles can be made available to buy or rent through Prime Video in the U.S. and other locations - on all supported devices including Fire TV, phones, tablets, game consoles, Smart TVs and from the web.</p> <p>Tools and analytics: Optimization with performance metrics such as minutes streamed, number of subscribers, projected revenue, and payment history.</p> <p>Safety and security: All content submitted for publication or published is made available at the sole discretion of Amazon and must adhere to the Amazon content policy guidelines, which may change over time.</p> <p>Billing/Payment: Not Prime Video Direct specific. Amazon has its own billing system.</p>
Amazon Appstore	<p>Multi-platform and multi-device distribution: Distribution on Fire TV and tablets as well as select Windows 11 devices.</p> <p>Billing/Payment: Amazon IAP API manages end-to-end purchase flow, payment processing, and receipts.</p> <p>Tools and analytics: Software Development Kit (SDK) downloads, app testing tools, app porting tools, pre-submission checklist, promotional pricing.</p> <p>Safety and security: All apps submitted to the Amazon Appstore must adhere to the General Content Policy Guidelines.</p>
Apple App Store	<p>Tools and analytics: Beta OS Releases, configuration, management and submission tools (Xcode, App Store Connect, transporter, etc.). Other services and capabilities for advanced features include: AirPlay, AirPrint, App Clips, ARKit, CarPlay, MapKit, PassKit, among many others.</p> <p>Multi-platform and multi-device distribution: Distribution on iPhone, iPad, Mac, Apple TV, and Apple Watch. Game subscriptions service through Apple Arcade. Submission of an unlimited number of apps and updates.</p> <p>Payment: Worldwide payment processing. Users can pay with credit or debit cards, carrier billing, digital wallets, or App Store and iTunes gift cards, depending on their region.</p> <p>Events and Support: Developer events, technical support, developer forums, membership support.</p> <p>Safety and security: Apple provides layers of protection and control to help ensure that apps are free of known malware and have not been tampered with.</p>
Audible	<p>Multi-platform and multi-device distribution: Distribution on Audible, Amazon, iTunes, and their global stores.</p> <p>Safety and security: ACX requires copyright information to ensure publishers hold the rights to any content uploaded or posted on the system.</p> <p>Tools and analytics: Audio Lab tool to check completed productions sound meets submission requirements every time.</p>
Deezer	<p>Tools and analytics: Profile customization (bio, photo, highlight feature to showcase new releases or tracks), in-depth analysis into who's listening, insightful data to better understand performances and monitor music, notification tools for new releases and milestones.</p>

Platform	Examples of main services promoted by platforms
Epic Games Store	<p>Multi-platform and multi-device distribution: Freedom to distribute games across all platforms, all stores, and all identity services. Players can log in using accounts from PlayStation Xbox, Switch, Facebook, Google, Apple, Steam, and Epic.</p> <p>Safety and security: Security program defining a risk-based strategy, combined with a strong control framework, to deliver a common sense, defense-in-depth based plan that is built for security and resilience. Epic uses the Center for the Internet Security Critical Security Controls framework in the development and review of Epic Online Services security requirements and controls.</p> <p>Tools and analytics: Different tools such as marketing tips and free services including voice chat, achievements, matchmaking, live ops, and more.</p> <p>Exclusivity deals: Epic works in partnership with developers and publishers to offer games exclusively in the store. In exchange for exclusivity, Epic provides them with financial support for development and marketing, which enables them to build more perfected games with significantly less uncertainty for the creators.</p>
Google Play Store	<p>Multi-platform and multi-device distribution: Android operating system and Google Play features and updates. Platforms for new form factors such as Auto and TV.</p> <p>Safety and security: Reviews of apps to ensure they comply with policies around safety and privacy, and with automated security of Google Play Protect that scans over 100 billion apps per day.</p> <p>Tools and analytics: Developers can run experiments, beta test, optimize store listings, analyze performance, and more.</p> <p>Billing/payment: Users enjoy safe and trusted payments, while developers can easily transact with users using Google Play gift cards and locally relevant forms of payment.</p>
Huawei AppGallery	<p>Multi-platform and multi-device distribution: Diversified distribution platforms to connect app developers to users of Huawei devices, including phones, tablets, and watches.</p> <p>Tools and analytics: Abundant resources, including AppGallery Connect, AppAdvisor, Preload, Quick Manager, targeted message push and technical support.</p> <p>Safety and security: Four-layer detection mechanism featuring malicious behavior detection, privacy check, and security vulnerability scanning; manual real-name security check, as well as real person, real device, and real environment authentication to ensure app security.</p>
Kindle Direct Publishing	<p>Multi-platform and multi-device distribution: Publishing takes less than 5 minutes and books appear on Kindle stores worldwide within 72 hours.</p> <p>Tools and analytics: Publish Kindle eBooks and paperbacks for free on KDP. Changes to books are possible at any time.</p> <p>Safety and security: Authors, publishers, and selling partners are responsible for adhering to the Kindle direct publishing content guidelines. These are enforced using a combination of machine learning, automation, and dedicated teams of human reviewers.</p>
Microsoft Store	<p>Safety and security: All the content is tested for security, family safety and device compatibility.</p>
Microsoft - Xbox	<p>Multi-platform and multi-device distribution: Distribution to the full range of Microsoft platforms.</p> <p>Tools and analytics: Technical assistance, Player Data, Social features, Multiplayer features, Cloud Storage and run, simplified publishing, etc.</p> <p>Safety and security: Microsoft Store Policies (Product and content), Products on the Store must meet certification standards, offer customers a truly useful and engaging experience, and provide a good fit for the Store.</p>
Nintendo Switch	<p>Tools and analytics: Different middleware tools such as Unity and Nintendo Dev Interface.</p>

Platform	Examples of main services promoted by platforms
ONE Store	<p>Multi-platform and multi-device distribution: Available (preinstalled) on all Android phones and tablets distributed by 3 major telcos in Korea.</p> <p>Tools and analytics: Diverse services including targeting via DMP (Data Management Platform), customer service, beta tests for game launching and technical support.</p> <p>Billing/Payment: A variety of payment methods, including simple payment service 'ONE pay', Direct Carrier Billing, Credit Card, Bank Transfers and various gift cards. All payment methods including DCB are available when using ONE Store IAP SDK. Developers are also able to adopt their own preferred payment methods.</p> <p>Safety and security: App-Review is a mandatory step for selling and updating your product at ONE store. The App-Review system checks physical and security problems in your binary files one at a time. If your product contains a threat, such as virus or malware, it will be rejected automatically.</p>
Samsung Galaxy Store	<p>Tools and analytics: Several SDKs and tools through code labs, podcasts, blogs, articles, videos and more. Programs to promote apps.</p> <p>Billing/Payment: Samsung In-App Purchase (IAP) payment service to sell a variety of items used in applications for Samsung Galaxy Store and internally manage communication with supporting IAP services in the Samsung ecosystem, such as Samsung Account, Samsung Checkout, and Samsung Rewards.</p> <p>Multi-platform and multi-device distribution: Distribute apps, games and podcasts to Samsung Galaxy devices. Develop apps and leverage business with Smart TV and Smart display devices.</p> <p>Safety and security: Application Security Guide for developers and security checks on submitted applications.</p>
Sony PlayStation	<p>Tools and analytics: Sales reports to track revenues and hit targets, marketing channels to amplify the reach of developers' titles and enjoy integrated campaigns, digital advertising, CRM, and social media support, support teams, comprehensive testing systems, etc.</p>
Soundcloud	<p>Depending on the program chosen, Soundcloud offers different levels of services, such as:</p> <p>Multi-platform and multi-device distribution: Distributing music to Spotify, Apple Music, TikTok, and more; Promoting and pitching music to Sirius XM and more.</p> <p>Tools and analytics: Up to 3 hours or unlimited track uploads; tracking management tools; basic or advanced fan insights.</p> <p>Billing/Payment: Splitting payments with collaborators; getting paid for your music across streaming services.</p>
Spotify	<p>Tools and analytics: Different tools such as data and analytics, editorial playlisting, profile customization, Artist Pick, etc.</p>
Steam	<p>Multi-platform and multi-device distribution: Automatic extension to phones, tablets on TVs using Steam Remote Play. Possibility of online multiplayer games.</p> <p>Safety and security: Automated handling of fraudulent purchases, including revoking content and preventing future abuse.</p> <p>Tools and analytics: Management of game's business through real-time sales data, steam Playest (early testing), conversion tracking of marketing campaigns, Digital Rights Management (DRM) tools, etc.</p> <p>Enhanced player experience with player-centric features that increase engagement and satisfaction.</p> <p>Implementation of Gameplay features through tried and tested frameworks to help developers add standard/advanced features to games with ease.</p>

Source: Deloitte Finance based on publicly available information (see Table 5)

Table 4. Source of information

Platform	Source of information
Amazon Prime Video Direct	Support – Prime Video Direct – Compensation details. Available at: https://videodirect.amazon.com/home/help?topicId=G202037410&ref=avd_sup_G202037410
Amazon Appstore	Amazon Developer Services Agreement. Last updated November 18, 2022. Available at: https://developer.amazon.com/support/legal/da Registration fee. Available at: https://developer.amazon.com/apps-and-games#:~:text=Reach%20millions%20of%20global%20customers,as%20select%20Windows%2011%20devices.&text=Increase%20your%20customer%20spending%20and,venue%20with%20our%20monetization%20offerings.&text=Registering%20for%20a%20developer%20account,there%20are%20no%20hidden%20fees.
Apple App Store	Apple Developer Program. Available at: https://developer.apple.com/programs/whats-included/ App Store Small Business Program. Available at: https://developer.apple.com/app-store/small-business-program/ Registration fee. Available at: https://developer.apple.com/fr/support/enrollment/#:~:text=Les%20frais%20d'abonnement%20annuels,devise%20locale%2C%20le%20cas%20%C3%A9ch%C3%A9ant.
Audible	ACX – Production Earning and Costs. Available at: https://www.acx.com/help/what-s-the-deal/200497690
Deezer	UCPS - Deezer has a new remuneration system for artists. Available at: https://www.deezer.com/fr/ucps
Epic Games Store	Publish Apps, Games and Software on the Epic Games Store. Available at: https://store.epicgames.com/en-US/publish
Google Play Store	Service fees. Available at: https://support.google.com/googleplay/android-developer/answer/112622?hl=en Play Media Program: https://android-developers.googleblog.com/2021/10/evolving-business-model.html Registration fee. Available at: https://support.google.com/googleplay/android-developer/answer/6112435?hl=en-GB#zippy=%2C%C3%A9tape-r%C3%A9glez-les-frais-d'inscription%2Cstep-pay-registration-fee
Huawei AppGallery	AppGallery Joint Operations Service Agreement. Last updated February 24, 2020. Available at: https://developer.huawei.com/consumer/en/doc/30203#h1-1582512691224
Kindle Direct Publishing	Digital Book Pricing Page. Last updated April 11, 2022. Available at: https://kdp.amazon.com/en_US/help/topic/G200634500
Kobo	What will my earnings be? Available at: https://kobowritinglife.zendesk.com/hc/en-us/articles/360058976032-What-will-my-earnings-be-
Microsoft Store	Microsoft Store – App Developer Agreement. Published June 16, 2022. Available at: https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4YJB0 Registration fee. Available at: https://developer.microsoft.com/en-us/microsoft-store/register/
Microsoft – Xbox	Microsoft Store – App Developer Agreement. Published June 16, 2022. Available at: https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4YJB0 Registration fee. Available at: https://developer.microsoft.com/en-us/microsoft-store/register/
Nintendo Switch	Report: Steam's 30% Cut Is Actually the Industry Standard . Available at: https://www.ign.com/articles/2019/10/07/report-steams-30-cut-is-actually-the-industry-standard Registration fees. Available at: https://developer.nintendo.com/faq
ONE Store	ONE store – Business Principle. Available at: https://www.onestorecorp.com/en/sv/foreco/ Service fee. Available at: https://dev.onestore.co.kr/wiki/en/doc/service-fee-5833011.html
Samsung App Store	Samsung Galaxy Store – Terms and Conditions. Effective from August 13, 2020. Available at: https://seller.samsungapps.com/help/termsAndConditions.as Registration fee. Available at: https://developer.samsung.com/terms#FEES

Platform	Source of information
Sony PlayStation	Report: Steam's 30% Cut Is Actually the Industry Standard . Available at: https://www.ign.com/articles/2019/10/07/report-steams-30-cut-is-actually-the-industry-standard
Soundcloud	Monetizing on Soundcloud. Available at: https://checkout.soundcloud.com/artist?ref=t522&ref=sem&utm_source=Google&utm_medium=paid&utm_campaign=Competitor_NAM_Pixis_AL_googlesearch&utm_id=18124074211&gclid=Cj0KCOjwguGYBhDRARIsAHgRm4880u3kqga8UYai-qBS4HmfsXbBAHUsM2i5pCxEFFdc9Vj5JydZFi-AaAqdKEALw_wcB&gclidsrc=aw.ds&cpv=r Royalties. Available at: https://soundcloud.com/pages/artist/distribution-terms#:~:text=SoundCloud%20Direct's%20rights%20are%20exclusive,Platform%20Distribution%20Fee%20of%2020%25
Spotify	Loud & Clear. Available at: https://loudandclear.byspotify.com/#money-flow
Steam	New Revenue Share Tiers and other updates to the Steam Distribution Agreement. Available at: https://steamcommunity.com/groups/steamworks/announcements/detail/1697191267930157838 Revenue Share Tier . Available at: https://variety.com/2018/gaming/news/valve-revenue-split-changes-1203078700/ Steam Direct fee. Available at: https://partner.steamgames.com/doc/gettingstarted/appfee#:~:text=Whether%20you%20are%20completing%20the%20Steam%20Direct%20signup,Read%20below%20for%20details%20on%20how%20it%20works.

Source: Deloitte Finance – Economic Advisory

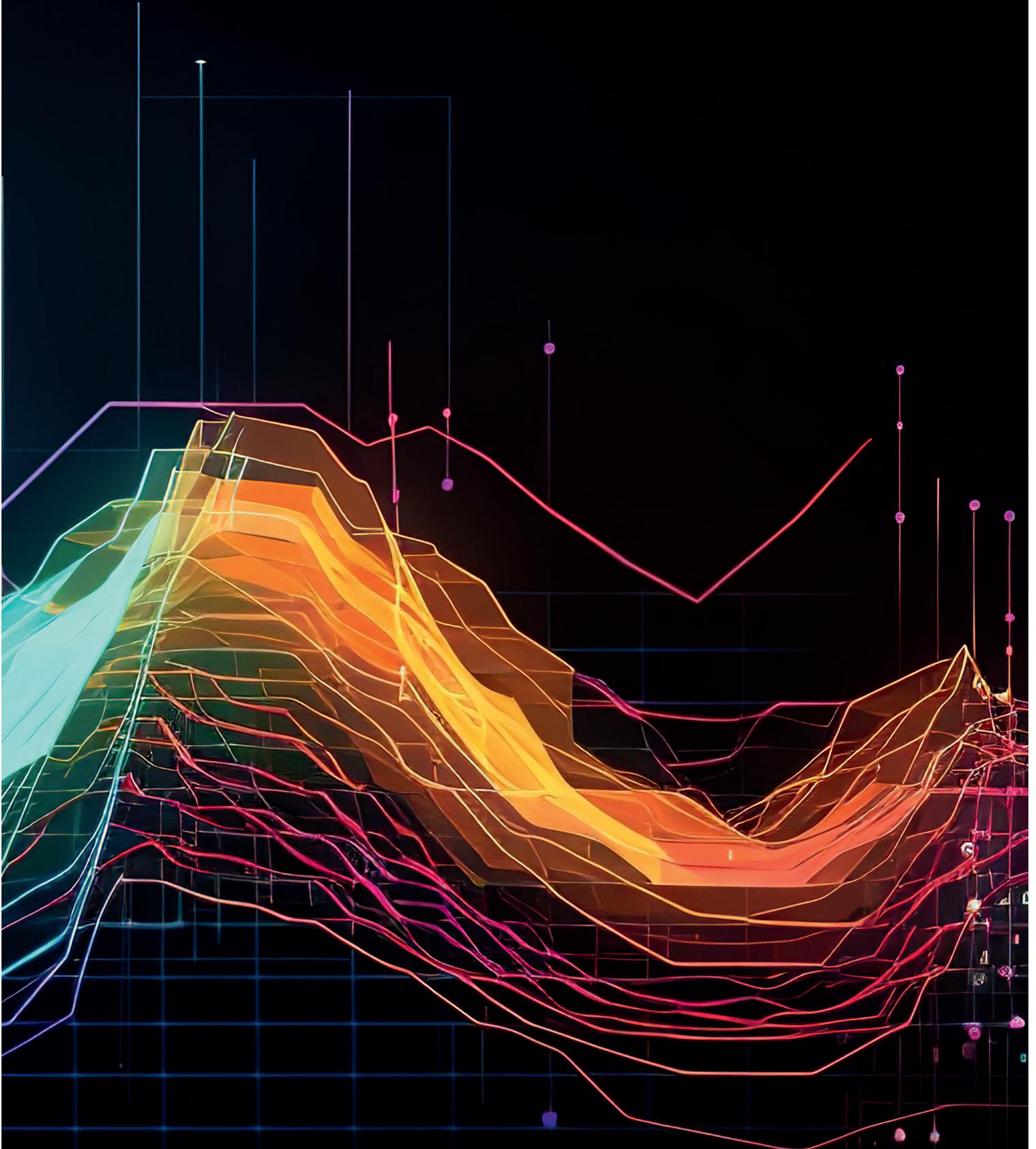


Table 5. Sources for examples of services provided by platforms

Platform	Source of information
Amazon Prime Video Direct	Content policy guidelines. Available at: https://videodirect.amazon.com/home/help?topicid=G201986500 European content acquisition. Available at: https://videodirect.amazon.com/home/help?topicid=GUWCLL9S7ADXAKSY&ref=avd_sup_GUWCLL9S7ADXAKSY#GHHFXVQ5AG36RX8T Helping studios, distributors, and independent filmmakers reach audiences worldwide. Available at: https://videodirect.amazon.com/home/landing
Amazon Appstore	Amazon Appstore Content Policy. Available at: https://developer.amazon.com/docs/policy-center/understanding-content-policy.html Monetization. Available at: https://developer.amazon.com/apps-and-games/services-and-apis/monetization App and Game Development. Available at: https://developer.amazon.com/apps-and-games
Apple App Store	Apple Developer Program. Available at: https://developer.apple.com/programs/whats-included/ App security overview. Available at: https://support.apple.com/guide/security/app-security-overview-sec35dd877d0/1/web/1
Audible	Copyright policy. Available at: https://help.acx.com/s/article/why-do-you-need-copyright-information ACX Audio Lab. Available at: https://www.acx.com/audiolab ACX Production Earnings and Costs. Available at: https://www.acx.com/help/what-s-the-deal/200497690
Deezer	Deezer for Creators. Available at: https://creators.deezer.com/
Epic Games Store	Trust Statement. Available at: https://dev.epicgames.com/en-US/services/terms/trust-statement Product Marketing Tips. Available at: https://dev.epicgames.com/docs/epic-games-store/publishing-tools/publishing-process/best-practicefor-store-presence Services. Available at: https://dev.epicgames.com/en-US/services FAQs. Available at: Epic Games Store FAQs Get Answers to Your Frequent Questions - Epic Games
Google Play Store	What does the service fee pay for? Available at: https://support.google.com/googleplay/android-developer/answer/11131145?hl=en#zippy=%2Cwhy-does-google-play-charge-a-service-fee%2Cchow-much-is-the-service-fee%2Cwho-is-subject-to-the-service-fee%2Cwhat-does-the-service-fee-pay-for%2Cdo-all-developers-pay-a-service-fee-on-in-app-purchases-of-digital-goods
Huawei AppGallery	Distribution. Available at: https://developer.huawei.com/consumer/en/distribute/
Kindle Direct Publishing	Content Guidelines. Available at: https://kdp.amazon.com/en_US/help/topic/G200672390 KDP Payment Options. Available at: https://kdp.amazon.com/en_US/help/topic/GJD7DFFX6X88AK46 Self-Publishing. Available at: https://kdp.amazon.com/en_US
Microsoft Store	Building a new, open Microsoft Store on Windows 11. Available at: https://blogs.windows.com/windowsexperience/2021/06/24/building-a-new-open-microsoft-store-on-windows-11/ Microsoft Store Policies. Available at: https://learn.microsoft.com/en-us/windows/uwp/publish/store-policies
Microsoft – Xbox	Microsoft Game Dev. Available at: https://developer.microsoft.com/en-us/games/solutions/distribution/ Xbox services overview. Available at: https://learn.microsoft.com/en-us/gaming/gdk/_content/gc/live/get-started/live-xbl-overview
Nintendo Switch	Tools / Middleware. Available at: https://developer.nintendo.com/tools
ONE Store	ONE Store Developer Center. Available at: https://dev.onestore.co.kr/devpoc/reference/introduce App review. Available at: https://dev.onestore.co.kr/devpoc/reference/view/Review
Samsung Galaxy Store	Samsung Developers. Available at: https://developer.samsung.com/develop Galaxy Store. Available at: https://developer.samsung.com/galaxy-store Application Security. Available at: https://developer.samsung.com/signage/develop/guides/application-security.html Samsung IAP. Available at: https://developer.samsung.com/iap

Platform	Source of information
Sony PlayStation	PlayStation Partners. Available at: https://partners.playstation.net/
Soundcloud	Monetizing on Soundcloud. Available at: https://checkout.soundcloud.com/artist?ref=t522&ref=sem&utm_source=Google&utm_medium=paid&utm_campaign=Competitor_NAM_Pixis_AI_googlesearch&utm_id=18124074211&gclid=Cj0KCQjwguGYBhDRARIsAHgRm4880u3kqga8UYai-qBS4HmfsXbBAHUsM2i5pCxEFdc9Vj5JydZFi-AaAqdKEALw_wcB&gclsrc=aw.ds&cpv=r
Spotify	Features. Available at: https://artists.spotify.com/features
Steam	Steamworks. Available at: https://partner.steamgames.com/

Source: Deloitte Finance – Economic Advisory



End notes

1. Economists generally consider a two-sided market to be *"one in which at least two distinct sets of agents (or sides) interact through an intermediary – the platform– and in which the behavior of each set of agents directly impacts the utility, or the profit, of the other set of agents"*. See Jullien et al. (2021).
2. The term "billing/payment systems" used throughout this study captures the fact that platforms use different terminology when referring to services to help facilitate transactions. For example, some platforms may refer to an integrated billing system that supports various forms of payment and offers billing-related services (e.g., centralized tracking of transaction history, a process for issuing refunds, etc.). Other platforms may refer to payment management while providing users with a list of acceptable forms of payment.
3. Amazon Appstore, Apple App Store, Deezer, Google Play Store, Huawei AppGallery, Kindle Direct Publishing, Kobo, Microsoft Store, Microsoft Xbox, Nintendo Switch, Samsung Galaxy Store, Sony PlayStation and Steam.
4. See for example Rochet & Tirole (2006).
5. See Deloitte Finance (2022) for a detailed review of the benefits of app stores for developers and consumers based on economic literature.
6. Cuadrado et al. (2012), Hyrynsalmi et al. (2014), Yun et al. (2017), Lee et al. (2014), Roma et al. (2012).
7. ITU (2016).
8. Roma et al. (2012), Pon (2015), OECD (2013), Ershov (2018).
9. Rob Frieden (2017).
10. Ershov (2018), Cachon et al. (2008).
11. Cuadrado et al. (2012).
12. <https://www.statista.com/statistics/1020996/distribution-of-free-and-paid-ios-apps/>
13. <https://www.statista.com/statistics/256776/distribution-paid-free-amazon-appstore-apps/>
14. <https://www.statista.com/statistics/266211/distribution-of-free-and-paid-android-apps/>
15. The proportion of free apps available on these three app stores has been stable over time during the last two years.
16. See: <https://support.google.com/googleplay/android-developer/answer/11131145?hl=en-GB>
17. This study only covers cases where fees (greater than zero) are applied to developers and does not take into account cases where fees are zero.
18. Amazon Appstore, Apple App Store, Deezer, Google Play Store, Huawei AppGallery, Kindle Direct Publishing, Kobo, Microsoft Store, Microsoft Xbox, Nintendo Switch, Samsung Galaxy Store, Sony PlayStation and Steam.
19. <https://play.google.com/console/about/programs/userchoicepilot/> and https://support.google.com/googleplay/android-developer/answer/12570971?_ga=2.51616553.1031843663.1673630587-202735704.1673630587
20. <https://seller.samsungapps.com/help/termsAndConditions.as>
21. Percentages applicable to revenues if not indicated otherwise.
22. All applicable to the List Price.
23. Auto-renewable subscriptions provide access to content, services, or premium features in apps on an ongoing basis. They automatically renew at the end of their duration until the user chooses to cancel.
24. News Partner Program and Apple Video Partner Program.
25. On top of production fees if production is not self-made.
26. On top of production fees if production is not self-made.
27. The Royalty Share option gives the flexibility to compensate producers with an equal share of royalty earnings for the life of an audiobook.
28. \$75 bonuses can be earned when the audiobook is the first listen of a new Audible member.
29. Epic works in partnership with developers and publishers to offer games exclusively on the store. In exchange for exclusivity, Epic provides them with financial support for development and marketing.
30. Offered to apps primarily offering video, audio, or books in which users pay to consume content.

Fees applied by distribution platforms to transactions by developers and content providers

31. An auto-renewing base plan provides uninterrupted subscription entitlement until cancelled. Subscriptions can be cancelled by the user, by the developer or by the Google Play billing system.
32. Huawei applies a specific revenue share policy in Mainland China, with 30% fees for education paid apps and 50% for gaming in-app purchases.
33. On top of delivery costs.
34. Applied to the List Price, exclusive of VAT, less delivery costs.
35. Threshold is €1.99 in Europe and varies across currencies/countries. See: <https://kobowritinglife.zendesk.com/hc/en-us/articles/360058976032-What-will-my-earnings-be>
36. All applied to the List Price.
37. From public non-official sources.
38. Depending on the transaction volume, payment cycle and price difference.
39. Such as coupon/point/carrier/membership.
40. From public non-official sources.
41. Depending on offered services.
42. Different agreements with each rights holder.
43. Recoupable after the product has at least \$1,000.00 Adjusted Gross Revenue for Steam Store or in-app purchases.
44. From public non-official sources.
45. See Table 4 in the Appendix.
46. See Table 3 in the Appendix for detailed examples.
47. <https://blog.google/outreach-initiatives/public-policy/how-sustain-safe-thriving-app-and-game-ecosystem/>
48. Excerpt of Microsoft's statement following the Epic Games vs. Apple Antitrust trial related to commission rates on the App Store. Available online at: <https://www.washingtonpost.com/video-games/2021/05/07/playstation-xbox-epic-games-apple/>
49. Non-official source
50. Non-official source
51. Non-official source

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