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# HOW DO PLATFORMS MAKE MONEY?

11 platform revenue models. Theory and real-life examples.



## **GOAL** of this whitepaper

This whitepaper aims to provide strategic insights into how platforms and marketplaces earn money as well as an overview of which revenue model(s) you could try in your platform/marketplace.

To this end, the paper presents the categories and subcategories of Platform Revenue Models together with tangible real-life examples.

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### **4 IMPORTANT TIPS** to have in mind before you start reading $\downarrow$

You can **combine multiple revenue models**, you are not limited to using only one!

Your revenue models **can** (and probably should) **change over time!** 

You can charge both consumers and providers while implementing different revenue models for each side.

There is no one model to rule them all. **The best model depends on your industry** and your participants.

### Introduction

Digital ecosystems such as Uber or Airbnb enable innovative business models by operating digital platforms connecting providers and consumers of products and services. While many businesses are trying to be the next "Airbnb for X" or "Uber for Y", there is a lack of information about how companies can create successful platform monetization strategies. This whitepaper explores the world of digital platforms and how they generate revenue.

Imagine a "digital ecosystem" [1] as a network of parties where a digital platform acts as a central broker and intermediary of products and/or services, connecting different market sides. For instance, the Uber platform operated by Uber Technologies Inc. (Asset Broker) plays the role of a matchmaker. It connects drivers (Asset Providers) with passengers (Asset Consumers) who are looking for rides (Asset).

The same analogy can be drawn for Airbnb. The Airbnb platform is operated by Airbnb, Inc (Asset Broker) and connects hosts (Asset Providers), who have accommodations to rent (Assets), with travelers (Asset Consumers) seeking places to stay. For simplicity, this whitepaper uses the term "asset broker" to refer both to the digital platform and its operator company.

Hence, the core of many digital platforms revolves around this marketplace dynamic, effectively matching supply with demand. Since platforms are essentially connectors of two or more parties, they aim to create value for every party involved.

Amazon creates value for buyers by presenting them with various options from various vetted sellers, guaranteeing they get their money back if something goes wrong, and providing them with great delivery services. Amazon also creates value for sellers by giving them enormous visibility for their products.

 ${\it As long as there's value, there are possibilities for monetization.}$ 

This paper is based on the combined knowledge of Fraunhofer IESE and randevu.tech. It explores numerous use cases of platform revenue models and summarizes key findings into **11 revenue models**. Our approach is separated into three steps:

**1. Research by Fraunhofer IESE.** Fraunhofer IESE conducts research in the area of digital ecosystems and platform business models. Various research efforts have produced a classification system - often referred to as taxonomy – that is engineered to systematically categorize digital platforms and their monetization strategies.

2. randevu.tech's expertise and analysis. The team at randevu.tech has profound expertise in the platform field and has designed and implemented various revenue model approaches. Using the taxonomy of Fraunhofer IESE, randevu.tech analyzed both the use cases of their customers and some well-known platforms to see how revenue models are designed. Using Fraunhofer's taxonomy, the team examined over 80 marketplace and platform use cases in regard to their revenue models.

ASSET BROKER

**Uber** <sup>¬</sup>, a ride-hailing platform

ASSET PROVIDERS

**Drivers** 

ASSET CONSUMERS

**Passengers** 

ASSETS

**Rides** 

ASSET BROKER

Airbnb 7, a lodging platform

ASSET PROVIDERS

**Hosts** 

ASSET CONSUMERS

**Travelers** 

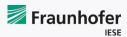
ASSETS

**Accommodations** 

**3. Knowledge exchange.** The results of the applied taxonomy and the depicted platform revenue models were discussed and consolidated in collaboration between randevu.tech and Fraunhofer IESE. The results include lessons learned about the taxonomy and the identification of different revenue models that platforms can use. These are documented in this whitepaper.

Throughout this paper, we will draw insights from prominent examples such as Uber, Amazon, and many hidden champions from various industries, deciphering how they have navigated the challenges of monetization while delivering exceptional value to their users.

Important note: Platforms are changing their revenue models regularly, trying to figure out what works best for them and their participants, opening a possibility for the examples in this whitepaper to be outdated. Nevertheless, even if some of the examples get outdated, they can serve to better understand the revenue models and how you can use them on your platform/marketplace.



**Fraunhofer IESE:** The Fraunhofer Institute for Experimental Software Engineering IESE in Kaiserslautern is one of the leading research institutes in the area of software and systems engineering as well as innovation engineering for over 25 years.

More about Fraunhofer IESE on Page 29 →

### randevu.tech

**randevu.tech:** offers tech infrastructure that enables faster and more efficient development and operation of marketplaces, digital platforms, and b2b commerce tools.

More about randevu.tech on Page 30  $\rightarrow$ 

### Research background

Our research led us to devise a classification system specifically tailored for platform revenue models, commonly referred to as a "taxonomy" (Figure 1). Think of this taxonomy as a detailed matrix, categorizing and itemizing every nook and cranny of possible revenue models. This classification provides a study framework to capture the essence of platform revenue models.

We designed our taxonomy intending to neatly organize various monetization strategies adopted by digital platforms as an analytical tool to describe the revenue models presented in this whitepaper.

Figure 1: Applied taxonomy to extract revenue model types

Revenue model dimensions	Revenue model characteristics of a platform business model										
What is the revenue model type of the asset broker?	Access model	Listing model		Advertising model		Commission model		Sales model		Donations and sponsorship model	Other
How does the asset broker generate revenue?	Access fees for platform participation	Access fees for platform features		sting fees on platform	Advertis for s		Commission	fees	Sales model of latform services	Donations or sponsorship	Other
DB3 Who is paying the asset broker?	Asset consumers			Asset provi			oviders		Third party		Other
DB4 At what point is payment made?	Pay per platform access	Pay per asset listing		Pay per user-related contact data		Pay per asset transaction		Pay per platform service use		Pay whenever you want	Other
DB5 How often are payments made?	Pay once				Pay on a recurring basis					Other	
DB6 Who sets the platform price?	Platform price se asset broke			Platform price set by asset provider		Platform price set by asset consumers			Platform price set by negotiation		Other
What does the platform price look like?	Absolute valu	ne F		Percentage value		Variable (negotiated)		) value Pa		ay what you want	Other
DB8 Can the platform price be discriminated?	Type of asset	Type of use	er	Quantity o	of asset	Locati	on of user	Different p	latform tariffs	No price discrimination	Other

The taxonomy illuminates the perspective of the asset broker, focusing on the core question: "How does the platform make money?". To address this question, several sub-questions are posed to examine each element individually, such as "Who is paying the asset broker?" and "How often are payments made?", etc.

The taxonomy was developed through a **rigorous research process**. It involved a comprehensive **literature review of 930 papers** to understand the latest concepts and theories in platform business models. We then applied the taxonomy to various use cases, including MyHammer, Vinted, and nebenan.de platforms and projects at Fraunhofer IESE, to evaluate its practical applicability. Additionally, we conducted a controlled experiment where participants created innovative platform revenue models further validating the taxonomy. The complete taxonomy and the background of its creation can be found in previously published research papers. [2][3]

HOW TO READ THE TABLE

Revenue model dimension are aspects and the characteristics possible options describing one revenue model.

Taking the aspect **DB5** "How often are payments made" as an example, possible characteristics of a revenue model can be either "once", "on a recurring basis" or "other".

More on page 8 →

[2] Bartels, N., Koch, M., Schmitt, A., Gordijn, J.: A taxonomy for platform revenue models: An empirical-to-conceptual development approach. In: Lecture Notes in Computer Science, pp. 189–205. Springer Nature Switzerland (Oct 2023). https://doi.org/10.1007/978-3-031-46587-1\_11

[3] Bartels, N., Koch, M., Gordijn, J.: Developing a taxonomy for revenue models of platform business models. In: 36th Bled eConference Digital Economy and Society - the Balancing Act for Digital Innovation in Times of Instability: Conference Proceedings. University of Maribor Press (2023). <a href="https://doi.org/10.18690/um.fov.6.2023.1">https://doi.org/10.18690/um.fov.6.2023.1</a>

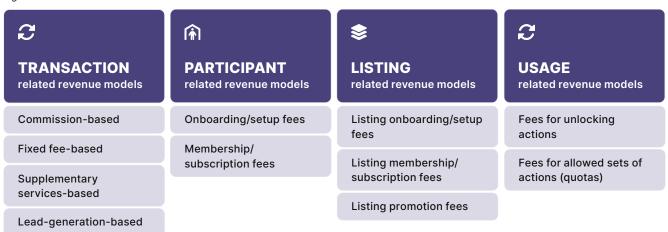
### randevu.tech Revenue Models

Working very closely with platform owners on a daily basis and dealing with so many possible options and tactics to generate platform revenue, we wanted to help our users and partners navigate this super interesting yet complex field.

By organizing the tactics and strategies into meaningful groups, presenting explanations, and showing examples, we are offering our users, partners, and the general growing platform community an **easy-to-understand overview of the possible options giving platform owners (Asset Brokers) the ability to make educated decisions.** This approach is based on our practical and hands-on experience in the industry.

By analyzing our clients and over 80 other platforms/marketplaces, we at randevu.tech developed our revenue model classification, dividing different revenue model tactics into the following four groups:

Figure 2: An overview of randevu.tech's revenue models



In this whitepaper, each revenue model will be presented and explained with the Fraunhofer IESE's taxonomy in mind, including a real-life example.

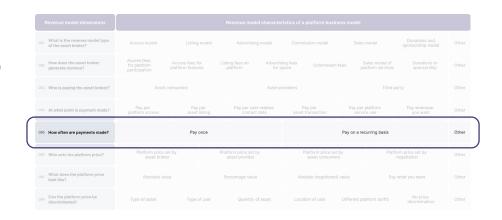
### How to read the upcoming tables

STEP 1

The "clean" table describes

Fraunhofer's revenue model
taxonomy (more details on page 5)

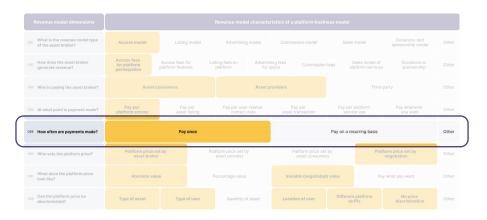
Payments to platform owners (Asset Brokers), as defined in DB5, can generally be made "once" or "on a recurring basis".



STEP 2

Yellow fields depict **how randevu's platform revenue models are applied to the taxonomy**, showing in yellow the possible characteristics of each taxonomy dimension within that particular revenue model.

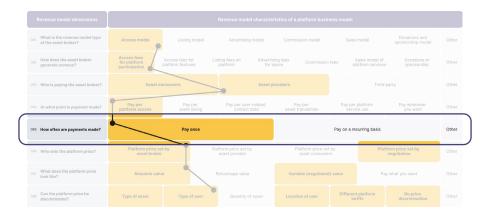
The Onboarding/setup fee revenue model f.e. has only one-time payments (DB5) and these platform prices can be either set by the asset broker or can be negotiated (DB6).



STEP 3

Black lines with dots show how this particular revenue model is being used by the described platform in the given real-life example.

SKU CANDY has an onboarding/setup fee, which is why the black dot is on the "pay once" in the DB5 dimension.





### TRANSACTION

### related revenue models

Transaction-related revenue models center around generating revenue from the interactions and exchanges that take place on the platform.

It is important to differentiate platform transactions in general and monetary transactions on the platform. Platform transactions are value exchanges happening on the platform and money does not necessarily need to be involved in them. For example, on Tinder, a platform transaction is getting matched with someone and there is no money involved in that particular platform transaction.

- 1. Commission-based revenue model
- 2. Fixed fee-based revenue model
- 3. Supplementary services-based revenue model
- 4. Lead-generation-based revenue model

### **Commission-based revenue model**

The commission model is a revenue approach where the asset broker earns revenue by taking a **percentage of the sales** of items/services sold on its platform. The asset broker earns from transactions happening on the platform, independently of which platform side is paying the platform fees.

#### **EXAMPLE**

ASSET BROKER

<u>Uber</u> <sup>¬</sup>, the ride-hailing platform

ASSET PROVIDERS ASSET CONSUMERS ASSETS

Drivers Passengers Rides

Uber generates revenue through a commission model (DB1) through a commission fee (DB2). Drivers are paying (DB3) commission fees once (DB5) per each transacted ride (DB4). The amount of the commission is set by Uber itself (DB6) and represents a percentage value of 20-25% for each ride (DB7). Fees can change depending on the location (DB8) and time.

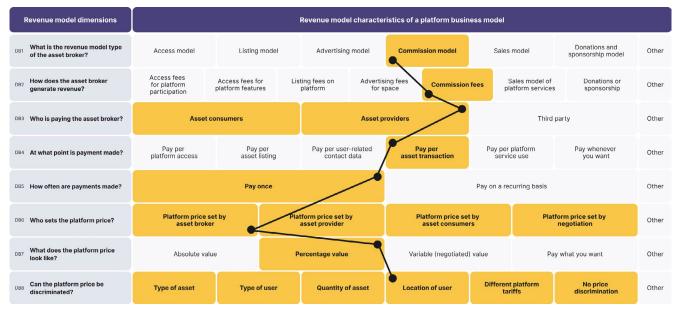


Figure 3: Applied taxonomy to the commission-based revenue model (yellow blocks), with Uber as an example (black lines and dots)

This model enables the asset broker to proportionally increase its revenue as the volume of transactions increases. The commission-based revenue model has largely been effective for platforms, as it synchronizes their financial interests with the growth and success of both their providers and consumers. It provides the asset broker with a reliable revenue stream to maintain and work on expanding its platform services.

### Fixed fee-based revenue model

In the fixed fee-based revenue model, the platform charges a **fixed fee regardless of the transaction's volume**. The fixed fee model simplifies the pricing structure, especially in gig marketplaces where buyers and sellers need price transparency before the transaction takes place. The fixed fee model is also particularly suitable for small, low-value transactions, as variable fees based on a percentage of the transaction value may not be cost-effective for the platform owner.

**EXAMPLE** 

ASSET BROKER

StubHub7, a online ticket marketplace

ASSET PROVIDERS

ASSET CONSUMERS

ASSETS

Ticket sellers Ticket buyers Tickets for sports, concerts, theater shows, etc.

StubHub earns profit by keeping a fixed fee from each transaction (DB1, DB2). Both buyers and sellers pay different yet fixed fees set by the platform (DB3, DB6, DB7) for every transaction regardless of the ticket's face value (DB4, DB5). These fixed fees are different per ticket category (DB8).

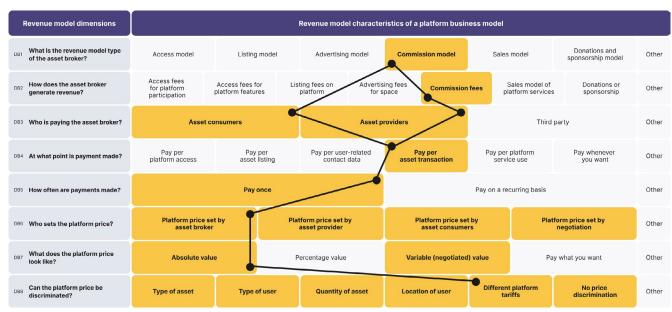


Figure 4: Applied taxonomy to the fixed fee-based revenue model (yellow blocks), with StubHub as an example (black lines and dots)

The straightforward and transparent pricing structure helps users understand the costs associated with their transactions, making it (in this example) a widely used and trusted online ticket marketplace. Platforms using this revenue model can scale their business by increasing the number of transactions happening on their platform.

### **Supplementary services-based model**

The supplementary services-based model is a revenue approach where the asset broker generates additional revenue **by offering value-added services**. These services, often optional, are **designed to enhance the transaction experience, reduce risk, or address specific user needs**. Such services can include supplemental insurance, authentication, or other forms of support and incentives to participate in a transaction, helping to build trust and reliability on the platform.

#### **EXAMPLE**

ASSET BROKER

<u>Vinted</u> <sup>7</sup>, a marketplace offering fashion trading between individuals with a focus on sustainability and affordability

ASSET PROVIDERS ASSET CONSUMERS ASSETS

Vinted generates revenue also by offering an optional item verification service (DB1, DB2). Buyers are the ones who can choose this service and pay once for each service used (DB3, DB4, DB5). The service fee is set by Vinted itself (DB6) and represents an absolute value of 10€ (DB7). The service fee is fixed and there is no price discrimination (DB8).

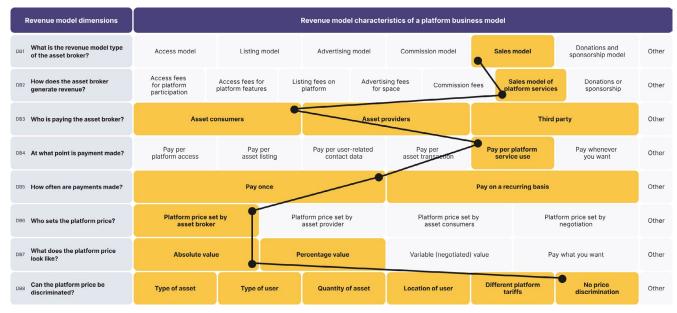


Figure 5: Applied taxonomy to the supplementary services-based model (yellow blocks), with Vinted as an example (black lines and dots)

The supplementary services-based revenue model benefits asset brokers by enabling them to diversify their revenue streams and add value to the platform experience by addressing specific consumer concerns. With e.g. checking authenticity of luxury items, platforms can increase user trust and transaction volumes.

### Lead-generation-based revenue model

The lead-generation-based revenue model is an approach where platform revenue comes from **providing business opportunities (leads) for its participants**. The platform gathers user information, identifies potential leads, shares them usually with asset providers, and generates revenue by charging for each qualified lead they provide. In this revenue model, platforms are not necessarily interested in carrying out the whole transaction process until the end.

#### **EXAMPLE**

ASSET BROKER

<u>Carwow</u><sup>⊅</sup>, a platform for simplifying the car buying process, where consumers enter their desired car after which dealers can submit their offers for the specified car model

ASSET PROVIDERS ASSET CONSUMERS ASSETS

Car dealerships Car buyers Cars

Carwow generates revenue through a lead-generation model (DB1), and charges car dealerships (DB3) by the number of qualified leads (DB2). A lead fee is paid once (DB5) for each generated lead containing potential buyers' contact data (DB4). The lead fee is set by Carwow itself (DB6) and represents a variable negotiated value (DB7), based on the number of inquiries referred to each dealer. There is no price discrimination; fees are consistent across different dealerships (DB8).

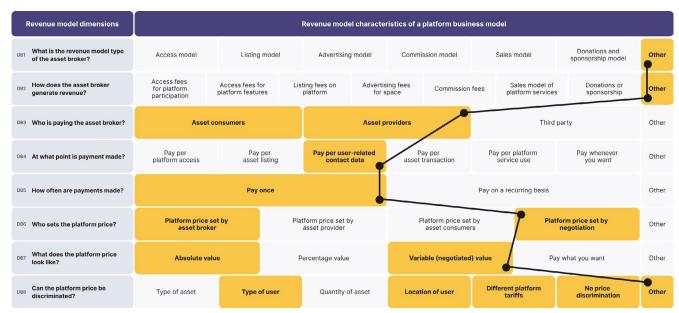


Figure 6: Applied taxonomy to the lead-generation-based revenue model (yellow blocks), with Carwow as an example (black lines and dots)

The lead-generation-based revenue model is advantageous for platforms and their paying participants, as it offers a targeted audience and pre-qualified leads. This approach is particularly beneficial for platforms such as job search websites and comparison platforms, where the accuracy and relevance of leads are crucial for the success of the participating businesses. Additionally, by postponing the payment moment from "starting to use a platform" to "pay only after gaining some benefits from the platform", platform owners can incentivize even the toughest market participants who otherwise would not become customers.



### **PARTICIPANT**

### related revenue models

Participant-related revenue models are types of monetization strategy that involve generating revenue from individuals or entities engaging with the platform's ecosystem. These models focus on **charging fees to participants for accessing the platform**.

A participant is a person or a company that participates in a marketplace, whether they are an asset consumer, asset provider, or both. Especially in the B2B platform world, a participant can consist of multiple users (persons). In such an example, one user can be responsible for product upload, the other for pricing, and the third one for legal topics, yet they all belong to one single participant (the organization they work for).

- 1. Onboarding/setup fees
- 2. Membership/subscription fees

1/2 of Participant-based revenue models

### **Onboarding/setup fees**

A revenue model with onboarding/setup fees is an approach where the platform revenue stems from **a one-time fee charged for new participants** as they join a platform. These fees can be used to cover the costs associated with account setup, verification, and the administrative processes necessary to enable user access to the platform services.

#### **EXAMPLE**

ASSET BROKER

**SKU CANDY**<sup>7</sup>, a platform that streamlines B2B commerce in the outdoor industry by ensuring that the right brands are matched with the right retailers

ASSET PROVIDERS ASSET CONSUMERS ASSETS

Brands Retailers owning shops/stores Products from outdoor, lifestyle, and adventure industry

SKU CANDY generates revenue through an access model (DB1) and charges an access fee for brands (DB2, DB3). The access fee is charged once (DB5) as an onboarding fee to participate in the platform (DB4). The onboarding fee is set by SKU CANDY itself (DB6) and starts at \$999 (DB7), with the onboarding fee varying from brand size (DB8).

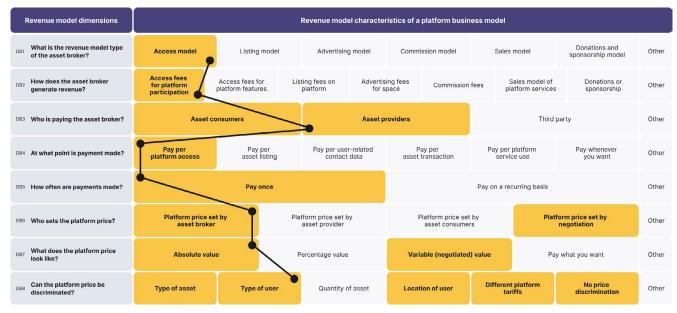


Figure 7: Applied taxonomy to the onboarding/setup fees (yellow blocks), with SKU CANDY as an example (black lines and dots)

An access model with onboarding/setup fees is beneficial for platforms as it offsets the initial costs associated with onboarding new participants. This revenue model is widespread in platforms where a high level of vetting or customization is required for new participants.

2/2 of Participant-based revenue models

### Membership/subscription fees

An access model with membership/subscription fees is an approach where the revenue stream comes from **a recurring fee charged to maintain access** to the platform. This revenue model often features various membership tiers designed to cater to different user needs, with more expensive memberships providing more extensive benefits. Participants typically subscribe to these plans for a specific duration, usually on a monthly or annual basis, ensuring a steady revenue stream for the platform.

**EXAMPLE** 

ASSET BROKER

CheMondis 7, a platform facilitating trade within the chemical industry

ASSET PROVIDERS ASSET CONSUMERS ASSET

Manufacturers of chemical products

Buyers

Chemical products

CheMondis generates revenue through an access model (DB1), charging an access fee (DB2) to the supplier of chemical products (DB3). To participate on the platform (DB4), suppliers pay a monthly fee (DB5). The membership fee is set by CheMondis itself (DB6) and starts from 400€/month (DB7) after a free 3-month trial. The amount of the fee itself depends on the supplier's size (DB8).

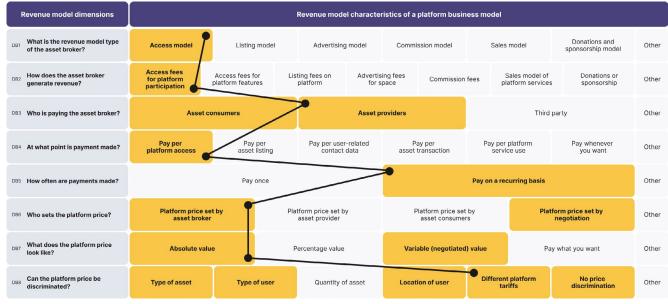


Figure 8: Applied taxonomy to the membership/subscription fees (yellow blocks), with CheMondis as an example (black lines and dots)

An access model with membership/subscription fees is beneficial for platforms where ongoing access to services or content is valuable. This approach also encourages long-term commitments from participants, enhancing the stability of revenues for the asset broker.



### LISTING

### related revenue models

Listing-related revenue models are types of monetization strategy that involve generating revenue from **participants showcasing their products or services** as platform assets/listings.

A listing is "the value" that a provider brings to a platform. It could be a product (e.g. Amazon), a service (e.g. development services on Upwork), a provider's profile (e.g. Tinder), or something in between. Listings are presentations of assets listed on a platform.

- 1. Listing onboarding/upload fees
- 2. Listing membership/subscription fees
- 3. Listing promotion fees

1/3 of Listing-based revenue models

### Listing onboarding/upload fees

The listing onboarding/upload fee model is a revenue approach where the asset broker charges a **one-time fee when asset providers create their offers** on the platform. This fee is typically associated with the initial setup and publication of each listing/asset on the platform.

#### **FXAMPLE**

ASSET BROKER

**Etsy**<sup>7</sup>, a multi-category platform enabling the trade of unique and artisanal items

ASSET PROVIDERS ASSET CONSUMERS ASSETS

Creators and item sellers Buyers Handmade and vintage items

Etsy generates revenue through a listing model (DB1), with revenues coming from providers uploading their products (asset) on the platform (DB2, DB3). The listing onboarding fee is paid once (DB5) for each new item listed (DB4). The fee is set by Etsy itself (DB6) and is a fixed amount of \$0.20 per item (DB7). This fee structure is uniform ensuring that the charge is the same for each item listed, regardless of its type or value (DB8).

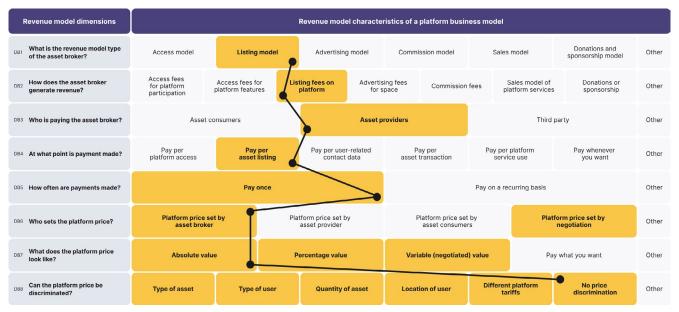


Figure 9: Applied taxonomy to the listing onboarding/upload fees (yellow blocks), with Etsy as an example (black lines and dots)

A listing model with onboarding/upload fees allows platform owners a steady revenue stream in situations when many providers are offering many different products. In this case, platform revenue growth directly correlates with the number of products listed on the platform.

2/3 of Listing-based revenue models

### Listing membership/subscription fees

The listing membership/subscription model is a revenue approach that involves a **recurring charge that asset providers pay to maintain their asset listings** on the platform for a specified duration. This model allows asset providers to opt for a subscription plan related to a specific listing category, rather than paying one-time fees for individual listings.

#### **EXAMPLE**

ASSET BROKER

<u>Nemački kutak</u>, a platform for people from the successor states of Yugoslavia (ex-YU) who live in Germany, providing information about services, products, and organizations in Germany related to that region

ASSET PROVIDERS ASSET CONSUMERS ASSET

**Businesses** Individuals from the ex-YU Listings/offerings of products, services, and organizations countries living in Germany organizations working with the community

Nemački kutak generates revenue through a listing model (DB1), with revenues coming from a subscription fee for listings (DB2). Businesses and organizations led by people from former Yugoslavia that offer asset listings are being monetized (DB3). The subscription fee is paid annually (DB5) and is set by the platform itself (DB6). It is a fixed amount of 99€ for each listing per year (DB4, DB7), without price discriminations (DB8).

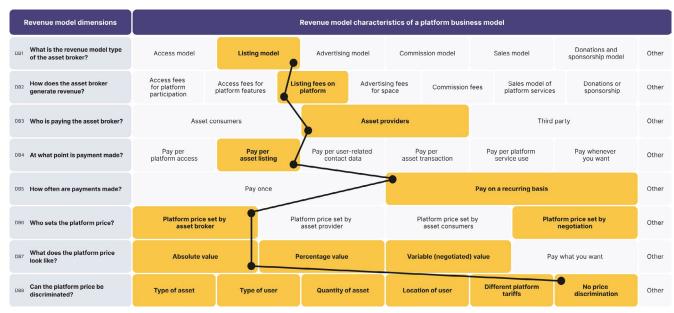


Figure 10: Applied taxonomy to the listing membership/subscription fees (yellow blocks), with Nemački kutak as an example (black lines and dots)

A listing model with membership/subscription fees is beneficial for platforms where providers benefit from sustained visibility and access to a targeted audience. This model is particularly advantageous in niche markets or community-focused platforms, as it provides a reliable revenue stream for the asset broker while allowing providers to maintain the presence of their businesses and the services/products they are offering.

3/3 of Listing-based revenue models

### **Listing promotion fees**

The listing promotion model is a revenue approach where asset providers **pay for promotional and advertising services to enhance the visibility** of their listings. This model involves promoting listings either on the platform itself or through external channels, such as social media or search engines.

EXAMPLE (as in Listing subscription/membership fees)

ASSET BROKER

**Nemački kutak**, a platform for people from the successor states of Yugoslavia (ex-YU) who live in Germany, providing information about services, products, and organizations in Germany related to that region

ASSET PROVIDERS ASSET CONSUMERS ASSETS

BusinessesIndividuals from the ex-YUListings/offerings of products, services, andand organizationscountries living in Germanyorganizations working with the community

Nemački kutak also generates revenue through a listing model (DB1), offering a promotion service to promote listings into Top3 results on every search result page (DB2). Businesses and organizations pay the service fee on a monthly basis (DB5), for each of their listings separately (DB4). The fee is set by the platform itself (DB6) and is a fixed amount of 199€ per month (DB7). There is no price discrimination (DB8).

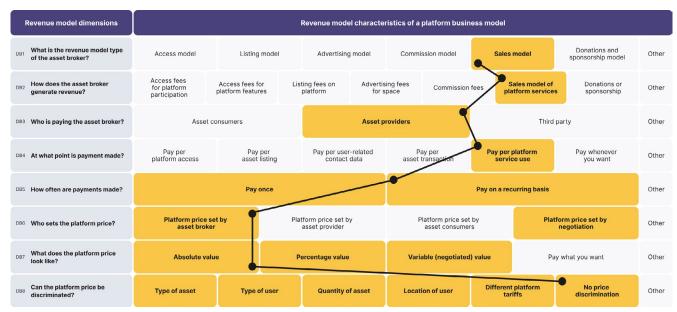


Figure 11: Applied taxonomy to the listing promotion fees (yellow blocks), with Nemački kutak as an example (black lines and dots)

A listing model with an optional promotion service is beneficial for platforms that wish to offer providers enhanced visibility. This model is particularly useful in platforms with many many listings, where standing out can significantly impact a provider's success. It allows for additional revenue generation for the asset broker while offering a valuable service to its providers.



### **USAGE**

### related revenue models

Usage-related revenue models describe models where platforms are generating revenue based on the level of usage or engagement of platform participants. In these models, platforms typically offer a basic set of features or actions for free, and participants are charged for accessing additional or premium actions beyond the basic usage.

Usage-related revenue models are closely linked to membership fees, recurring typically every month. These models are emphasized separately due to their focus on **artificially limiting interactions through action-based or time-based constraints**.

Implementing such limitations involves technical complexity and can lead to significant implications, contrasting with the simplicity of straightforward membership fees without such restrictions.

- 1. Fees for unlocking actions
- 2. Fees for allowed sets of actions (quotas)

1/2 of Usage-based revenue models

### Fees for unlocking actions

The "unlocking actions" model is a revenue approach where users receive **unlimited access to use a certain feature or sets of features**, based on their chosen tier. This model is commonly associated with a tiered subscription approach, where higher tiers offer more extensive features and capabilities.

#### **EXAMPLE**

ASSET BROKER

**Tinder**<sup>⊅</sup>, a dating platform

ASSET PROVIDERS = ASSET CONSUMERS

ASSETS

People looking for dates\*

Unlocking matches and chatting with people in your current surroundings

EATURE

"Passport", where users can manually change their locations and match with people in different cities or countries, which can be especially beneficial before traveling or relocating.

Tinder generates revenue through an access model (DB1) and offers a platform "passport" feature (DB2) for individuals who want to use it (DB3). The access fee for this feature is charged monthly (DB4, DB5). The fee is set by Tinder itself (DB6) and is included within a particular subscription plan (DB7). Apart from individual promotions and different subscription terms, there is no price discrimination (DB8).

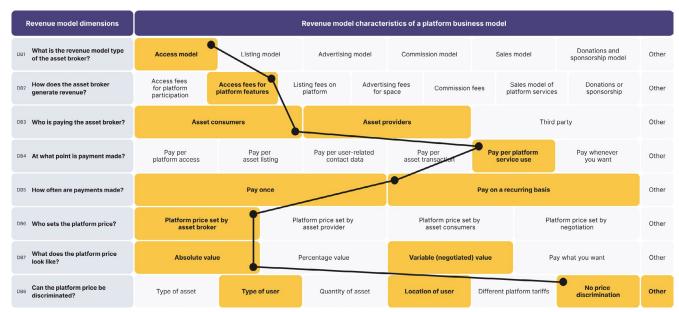


Figure 12: Applied taxonomy to the fees for unlocking actions (yellow blocks), with Tinder as an example (black lines and dots)

An access model with unlocking features is a revenue approach beneficial for platforms where different user needs can be segmented into distinct subscription plans, enhancing both user satisfaction and potential revenue streams.

<sup>\*</sup>An interesting example of a peer-to-peer platform, where asset providers are at the same time also asset consumers.

2/2 of Usage-based revenue models

### Fees for allowed sets of actions (quotas)

The fees for allowed sets of actions is a revenue model approach where users receive **limited access to use a feature or sets of features**, and platform services, and only for a specific amount of times. For example, paying a fee for 10 super-likes on a dating app - once you used all 10 of them, whether you used them all in 2 minutes or 2 months, you need to buy another set to give the next super-like to someone.

#### **EXAMPLE**

ASSET BROKER

**TOOLPLACE**<sup>⊿</sup>, an innovative Request-for-Quotation(RFQ)-based digital platform for procurement of injection molds in the plastic moulding industry

ASSET PROVIDERS ASSET CONSUMERS ASSETS

Toolmakers Plastic molders Injection molding tools

TOOLPLACE generates revenue through an access model (DB1) and offers platform features to create RFQs for injection molding tools (DB2). Depending on the quota size purchased, a plastic moulder can create a certain number of RFQs (DB3). The access fee is charged as the set of actions is being used (DB4, DB5) and once the plastic moulder wishes to continue using the platform, they need to purchase another set of possible RFQs. The fee is set by TOOLPLACE itself (DB6) and represents a variable negotiated value (DB7). There is no active price discrimination (DB8).

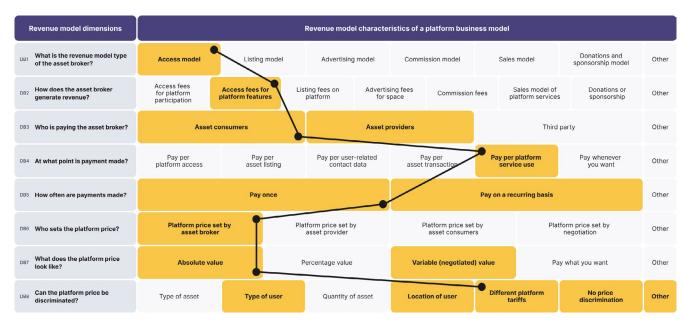


Figure 13: Applied taxonomy to the fees for allowed sets of actions (yellow blocks), with TOOLPLACE as an example (black lines and dots)

An access model with a quota limitation for a certain feature suits best platforms whose participants are not using the platform at the same pace throughout a certain period of time, but rather in waves and as their need occurs.

### **HYBRID**

### revenue models with case studies

We have discussed transaction, participant, listing, and usage-related revenue model types. However, as we already saw in the examples of Nemački kutak (a platform for the ex-YU community living in Germany), platforms can also operate using a combination of these model types simultaneously. We call this a **hybrid platform revenue model**.

Hybrid revenue models are novel approaches that combine various monetization strategies to create diversified and sustainable revenue streams. These models blend two or more revenue model types to accommodate a wider range of platform participants services.

- 1. Amazon
- 2. CheMondis

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1/2 Case study

### Amazon's third-party marketplace revenue models

Amazon started its operations in 1994 in Seattle. Over the years, it transformed into a multinational technology company, becoming one of the world's largest online retailers and a prominent player in various industries, including e-commerce, cloud computing, artificial intelligence, digital streaming, and logistics.

Amazon's third-party marketplace has played a pivotal role in its growth and success. The company managed to incorporate many different revenue models into its activities and thus optimize its business.

### #1: Commission-based

When Amazon's marketplace was launched, a commission-based revenue model was introduced. Third-party sellers could list their products on Amazon, and for each successful sale made through the platform, Amazon would charge the seller a percentage-based commission. This model allowed Amazon to align its interests with the sellers', as the company's revenue would grow alongside the sellers' success.

In Amazon jargon, this is called a category referral fee, and depending on the category, Amazon charges anywhere between 8% and 45% every time a seller makes a sale.

Suppose Seller A lists a product in the Electronics category and successfully sells it for  $100 \in$ . Amazon charges a commission of 15% on electronics, so the seller would pay a commission fee of  $15 \in$   $(15\% \text{ of } 100 \in)$  to Amazon.

### #2: Listing onboarding/upload fee

As the third-party marketplace grew in popularity, Amazon introduced a second revenue model type by incorporating listing fees. In addition to the commission from successful transactions, sellers were required to pay an onboarding fee to list their products on the platform.

Seller B wants to list a new product in the Home & Kitchen category. Amazon charges a listing fee of  $0,30 \in$  per item for this category. If Seller B lists 50 units of the product, they would pay a total listing fee of  $15 \in (50 \text{ items } * 0,30 \in \text{ per item})$  to Amazon.

Another 3 revenue models on the next page...

### **#3: Supplementary services**

Amazon introduced the Fulfillment by Amazon (FBA) service, allowing sellers to store their inventory in Amazon's fulfillment centers. In exchange for this service, sellers paid FBA fees, which covered storage, picking, packing, and shipping. This revenue model provided sellers with logistical support and the advantages of Amazon's efficient shipping and customer service, encouraging more sellers to opt for FBA.

Seller C has a set of products they want to use FBA service for. For standard-size items, the FBA fulfillment fee for a product weighing 0.45 kilograms is  $2.50 \in .15 \text{ lf}$  the product weighs 0.68 kilograms, the fee that the sellers need to deduct from their earnings increases to  $3.00 \in .15 \text{ lf}$ 

### #4: Participant membership/subscription fees

Amazon introduced subscription plans for sellers with high sales volumes. By subscribing to a monthly plan, sellers gained access to various benefits such as reduced referral fees, improved exposure, and advanced selling tools.

Seller D subscribes to the "Professional Selling Plan", which costs \$39.99 per month. This plan provides several benefits, including a reduced referral fee rate of 12% (compared to the standard 15% for their product category).

### **#5: Listing promotion fees**

As Amazon's advertising platform evolved, sellers could also opt for paid advertising to boost the visibility of their products. These promotional fees provided an additional revenue stream for Amazon, further monetizing their third-party marketplace.

Seller E chooses to run a sponsored product ad campaign with a daily budget of  $20 \in$ . Amazon charges them based on the number of clicks their ad receives, with each click costing  $0.50 \in$ . If the campaign generates 50 clicks in a day, the total advertising fee would be  $25 \in$  (50 clicks \*  $0.50 \in$  per click).

In summary, Amazon's skillful incorporation of various revenue models within its third-party marketplace has fostered mutual benefits for the company, sellers, and customers. Through constant innovation and refinement of these models, Amazon has firmly established itself as a prominent force in the e-commerce sector, driving the platform's expansion and securing its position as one of the world's most valuable enterprises.



2/2 Case study

### CheMondis - driving success through innovation in the chemical industry

As described within the membership/subscription fee revenue model (Page 16), <a href="CheMondis">CheMondis</a> is a B2B marketplace that has disrupted the traditional chemical industry by connecting chemical buyers and sellers. Founded in 2018, the company has rapidly gained traction and established itself as a prominent player on the market, leveraging technology to simplify transactions and streamline supply chain processes.

### #1: Participant membership/subscription fees

The platform offers subscription packages to chemical suppliers, granting them access to the platform and a wide buyer base. These packages often include enhanced visibility, priority listing, and personalized marketing support. The membership/subscription model provides a steady and predictable revenue source for CheMondis.

Depending on the company size and their gross merchandising volume (GMB), memberships are ranging from 400€/month to 900€/month for the biggest seller.

### #2: Supplementary services

CheMondis aggregates vast amounts of data on chemical trends, market dynamics, and buyer behavior. The platform offers valuable data insights and analytics services to chemical suppliers, enabling them to make informed business decisions and optimize their sales strategies.

### **#3: Listing promotion fees**

By featuring sponsored products and offering banner ad placements, CheMondis generates additional revenue streams while enhancing suppliers' marketing efforts.

In summary, CheMondis incorporated various revenue models even in their early years, helping them build a very good value proposition for both sides, and establishing their leading position in the market.

### Choosing the right revenue model(s) and final thoughts

Choosing the right platform revenue model is pivotal for the success of any platform, demanding a careful balance between value creation and value capture. This whitepaper, featuring Fraunhofer IESE's taxonomy for platform revenue models and domain knowledge and insights from randevu.tech, underscores the importance of a revenue model that resonates with its revenue sources (who pays?), revenue streams (how is it paid?), and pricing model (how much is paid?).

A fundamental takeaway is the importance of deeply understanding the platform sides and ensuring the monetization strategy is well-aligned with the overall value proposition. Especially at the beginning of the platform journey, where the platform itself is not powerful enough to dictate the market conditions (like Amazon can now).

The crux of devising a successful platform revenue model often lies in **testing what works best** at the current point in time.

For instance, do you think a monthly fee is too high or puts consumers off? Then perhaps you should opt for a fee per transaction in order not to create a barrier to registering. Are consumers not willing to pay the entire platform price? Then it may make sense to split the platform price between the consumer and the provider side. Is it possible to generate an additional source of income by monetizing third parties (e.g. renting out advertising space on the platform)? Maybe a combination of various revenue models can optimize platform revenue streams.

Such questions and considerations are vital for grasping the essence of an effective platform revenue model and should be both systematically designed and **ready to be adapted/changed quickly as the platform's business develops**. The taxonomy and revenue model types provided in this whitepaper can help guide this process.

### There is no one-size-fits-all solution

There is no one-size-fits-all answer to the ideal revenue model for a digital platform. The key lies in recognizing the diversity of available revenue models and customizing their usage that suit the platform's objectives at this particular point in time.

This whitepaper aims to contribute insights and demonstrate how successful platforms have crafted their revenue models. In a nutshell, an effective platform revenue model must create value for all of its participant sides while capturing value for the platform itself.

Platform businesses are advised to engage with their users and test different monetization strategies and their combinations to discover the most viable platform revenue model. This whitepaper is designed to be a practical contribution to this process.

**4 IMPORTANT TIPS** to have in mind before you start exploring ↓

You can combine multiple revenue models, you are not limited to using only one!

There is no one model to rule them all. **The best model depends on your industry** and your participants.

You can charge both consumers and providers while implementing different revenue models for each side.

Your revenue models can (and probably should) change over time!





# About the Fraunhofer Institute for Experimental Software Engineering IESE

The Fraunhofer Institute for Experimental Software Engineering IESE in Kaiserslautern is one of the leading research institutes in the area of software and systems engineering as well as innovation engineering for over 25 years. With its applied research, the institute develops innovative solutions for the design of dependable digital ecosystems, thereby accelerating the economic and social benefits for its customers.

Fraunhofer IESE? provides support in mastering challenges in a wide variety of application areas, with particular expertise in the areas of "Automotive & Mobility", "Production", "Digital Business", "Smart City & Smart Region", "Defense", as well as "Agriculture & Food" and "Digital Healthcare". In over 2,000 customer projects, the institute has transferred cutting-edge research into sustainable business practices and innovative products, with the current focus topics being "Dependable AI", "Digital Ecosystems", "Digital Twin / Virtual Engineering", and "System Modernization".

Fraunhofer IESE is one of 76 institutes and research units of the Fraunhofer-Gesellschaft. Together they have a major impact on shaping applied research in Europe and worldwide as well as contribute to Germany's competitiveness in international markets.



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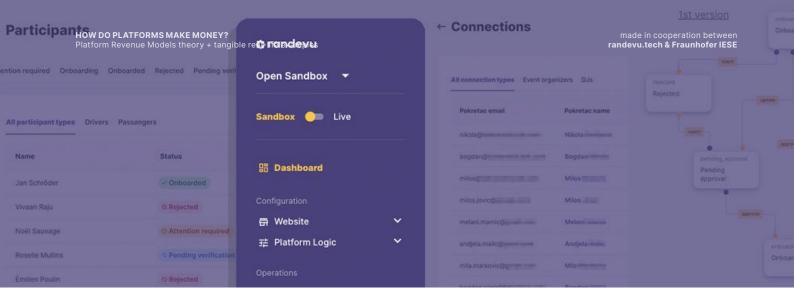
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randevu.tech

### **About randevu.tech**

randevu.tech is a VC-funded tech company with headquarters in Berlin, and offices in Belgrade and Novi Sad, Serbia.

randevu.tech was founded by tech experts in order to solve the technological challenges of building, running, and scaling complex marketplaces and digital platforms. randevu.tech's API-first and headless solution allows teams to use fully customizable platform building blocks to accelerate their time to market, reduce the cost of ownership, reduce the cost of change and innovate as they grow.

### Experienced tech issues so many times. Solved them once and for all.

randevu.tech's founders built their first marketplace back in 2000, building many custom marketplaces over the last 23 years, both in startups and in corporate setups.

As engineers, they were facing the same challenges every time they would start such a project:

- · hiring an experienced tech team of at least 3-4 people to start coding,
- reinventing the wheel every time by coding everything from scratch,
- coding even the slightest change might take super long to iterate putting at risk the business momentum,
- · struggling with the ever-accumulating technical debt,
- struggling with scaling the solution once many participants start using the product, etc...

This frustration led them to analyze marketplaces and digital platforms and through their journey, they have discovered all the building blocks necessary to build and scale custom solutions. Taking those learnings, they built and launched randevu.tech believing in a better, easier, and faster way of creating scaleable and customizable marketplace solutions for any business.

randevu.tech is a robust infrastructure designed to create and operate multisided (also 3+ sides) and multi-vendor platforms and marketplaces that can be easily adapted to match your preferences and requirements. It comes with modern dev tools, that enable you among other things also to **explore and run the above-listed revenue models** to find the best one that fits your business.

Implementing revenue models and changing them along the way can be costly and time-consuming, especially when teams build marketplaces from scratch. With that in mind, randevu.tech developed its marketplace infrastructure as customizable and configurable as possible, making it the most efficient way for conceptualizing, testing, using, and switching between different revenue models throughout the whole life-cycle of a platform.

Want to learn more? Let's have a chat!



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### HOW DO PLATFORMS MAKE MONEY? 11 platform revenue models. Theory and real-life examples.

This white paper is a collaboration between Fraunhofer IESE and randevu.tech. It is published by randevu.tech.

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