

Private and Public Sector Platforms – Characteristics and Differences

Abstract

Private sector platforms allow for new ways of doing business by connecting different market actors. Recently, public sector platforms have emerged that engage consumer citizens for economic and societal challenges. This paper conceptualizes such platforms, based on a thorough literature review and an empirical data collection. We provide five defining characteristics of platforms and show how private and public platforms differ.

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The platform economy

In the Western world, the platform economy – empowered by new and emerging digital possibilities (Porter/Kramer 2011; Cusumano 2010; Baldwin/Woodward, 2009; Tiwana 2013) – has been described as the most profound macroeconomic change since the industrial revolution (Parker/Van Alstyne/Choudary 2016; Accenture 2016). It disrupts existing organizations (Kenney/Zysman 2016) or even whole industries (Drahokoupil/Fabo 2016; Accenture 2016; Porter/Kramer 2011; Cusumano 2010; Chaney 2009) and allows for new ways of doing business by connecting different market actors.

The platform economy is a “broad marketplace phenomenon with internal differences, (.), consisting of disruptive technologies” (Perren/Kozinets 2018, p. 21). Platforms itself are “markets formed through an intermediating technology (...) that facilitate exchange activities among a network of equivalently positioned economic actors” (Perren/Kozinets 2018, p. 22). These new trade and exchange structures in the form of online platforms such as *Uber*, *booking.com* or *Airbnb* change consumer life worlds and institutionalized market structures (Colby/Bell 2016; Haque 2016). Inherent in the platform economy are new underlying logics such as altered power relationships between market actors through network effects (Cusumano/Kahl/Suarez 2008), new opportunities to create value and competitive advantage, the empowerment of consumers (Izvercianu/Şeran/Branea 2014), previously unknown digital capacities (Bharadwaj et al. 2013), and a shift from the consumer to the “prosumer” (producer consumer) (Prahalad/Ramaswamy 2004; Payne/Storbacka/Frow 2008; Grönroos 2011).

This development is not limited to private platforms but also reaches into regulators’ spheres where so-called public sector platforms are emerging (Fligstein/Dauter 2007). The present paper conceptualizes these public sector platforms. Based on a thorough literature review and an empirical data collection, we carve out five defining characteristics of platforms and show how private and public platforms differ with respect to these characteristics.

Public sector platforms

From e-services to innovative platforms

Until recently, regulators were using the internet mainly to inform citizens in more or less interactive ways about governmental, societal, environmental, and health topics through e-services (Torres/Pina/Acerete 2006). Examples for these predominantly passive e-services include online tools for e-democracy, e-governance, and e-government (Chadwick 2003), such as platforms for electronic voting (Zissis/Lekkas 2011), digital tax declarations or

issuing birth certificates (Kaliontzoglou et al. 2005), service apps for local governments (Bond 2015), or public service broadcasting as an alternative to commercial TV channels (Enli 2008). These e-services aim to overcome “economic, social, and environmental challenges” by “improving collaboration between citizens and government agencies” through “a more open, flexible, and collaborative electronic government” (Zissis/Lekkas 2011, p. 239). Recently, regulators have started to experiment with the platform economy by establishing new and innovative public sector platforms, for example timebanking initiatives, community development, refugee integration, midwife placement or intergenerational home sharing projects. This way regulators can turn consumers into citizens by allowing them to initiate or boost social change (Kneip, 2012). Public sector platforms can enhance this process of empowerment and responsabilization. For regulators the benefit is obvious: consumers voluntarily take on new responsibilities and tasks, turn into active citizens and this way relieve the government of certain organizational tasks. For consumers, such public sector platforms provide a space for taking an active role in current societal and political concerns, such as the support of minorities or environmental activism, and to shape their own future (Ottlewski et al. 2019 forthcoming). Furthermore, those public platforms facilitate exchange processes among consumer citizens faced with economic or societal challenges and allow for innovative ways to orchestrate collective action. It is important to note here that consumer citizens participate in these public sector platforms voluntarily, without any monetary incentives.

Case study: The public sector platform ‘Timebanking for the future’

One example of a public platform is *Zeitvorsorge.ch* which is also called ‘Timebanking for the future’. *Zeitvorsorge.ch* is a timebanking platform that is managed by a non-profit organization and financed by the City Government of St. Gallen with support from regional church, Red Cross, and nursing services. This public sector platform matches citizens aged 60+ with individuals aged 80+ for the purpose of providing assistance to the older cohort. The hours spent with tasks of elderly care, such as caretaking, shopping, cleaning or other household or leisure activities, are recorded digitally in a timebank for the person aged 60+. Once the 60+ person reaches the age of 80 or requires help, he/she can use the acquired time deposit for his/her own support. Thus, the platform is an alternative to the traditionally funded pension or health care systems (European Commission 2015, 2017). The practical implications of this timebaking platform address recent macroeconomic changes, specifically global aging. The demographic change entails various challenges, e.g., financial pressures on existing health care

and pension systems (European Commission 2015, 2017), lack of a qualified labor force (Mai 2008; Ulrich 2005), and a caretaking gap (World Health Organization 2008). Our empirical investigation, consisting of in-depth interviews with timebanking participants and platform managers revealed that the benefits of the timebanking platform reach even beyond its aspired goals. The participants do not only build up a support arrangement, they create new extended families with their timebanking partners and families. These “alternative family structures” are initiated through the platform and allow them to age at home (Ottlewski et al. 2019 forthcoming).

Therefore we propose that public platforms might be a promising solution for managing demographic change, supplementing the current pension and care system, or addressing other instances in which existing governmental structures are challenged. Based on the empirical investigation of this public platform initiative and an extensive literature review, we gained an in-depth understanding of public sector platforms, its initiators/managers, and participants. Table 1 summarizes definitions and examples of private and public sector platforms resulting from this research.

Type of Platform	Definition	Examples
Private Sector Platform	Online platforms in the private sector (B2C, C2C). These platforms take an intermediary function and connect different parties for profit purposes (Perren and Kozinets, 2018).	<ul style="list-style-type: none"> ▪ Airbnb.ch ▪ Blablacar.de ▪ Ebay.de ▪ Uber.com ▪ Booking.com
Public Sector Platform	Online platforms in the public sector (C2C). These digital platforms are initiated and financed by the public sector, address societal challenges and allow consumer-citizens to connect and to exchange services.	<ul style="list-style-type: none"> ▪ Timebanking initiatives (www.zeitboerse.ch) ▪ Associations for neighbors (http://www.zeitgut.org) ▪ Refugee integration (http://so-freiwillig-engagiert.so.ch; http://ankommen-zh.ch/de/angebote) ▪ Midwife placement (https://www.hebammensuche.bayern) ▪ cohabitation projects (www.wohnenfuerhilfe.info)
Hybrid Platform	Online platforms that are sponsored/financed/hosted/initiated by private owners but located in a domain that is traditionally situated in	<ul style="list-style-type: none"> ▪ Family formation initiative (Familyship.org) ▪ Connecting neighbors in a platform community (Nebenan.de)

	<p>the public sector, e.g., a platform as part of a company’s CSR activities or a cooperation with charitable/non-profit partners in a societal context.</p>	<ul style="list-style-type: none"> ▪ Outsourcing caregiving tasks (Betreut.de) ▪ Neighborhood support (Pflegrid.de) ▪ Supporting senior citizens with everyday activities (Careship.de) ▪ Renting grandparents (https://www.misgrosi.ch; https://www.rentarentner.ch/v2/index.html)
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Table 1. Definitions and examples of platform types

Conceptualizing public platforms

More and more governmental and non- governmental institutions are using public platforms and employing them as part of their digitalization strategy and processes (Fishenden/Thompson 2013; Brown et al. 2017). Table 2 compares the main characteristics of private and public sector platforms in order to understand how public sector platforms work, how they differ from private platforms and what practitioners can learn from them. We identified those characteristics via a thorough literature review in cross-disciplinary journals with key terms that are closely related to the platform economy and sometimes even used interchangeably: ‘sharing economy’, ‘peer-to-peer economy’ (Denegri-Knott/Zwick 2012), ‘on-demand economy’, ‘prosumption’ (Humphreys/Grayson 2008; Ritzer 2014; Woermann 2012; Collins 2010; Comor 2010), ‘co-creation’ (Prahalad/Ramaswamy 2004), or ‘collaborative economy’ (Cova/Cova 2012; Drahoukoupil/Fabo 2016). Out of 87 identified journal articles, we established 32 as highly relevant for characterizing private and public sector platforms. Furthermore, we closely investigated our empirical case study, the *zeitvorsorge.ch* platform, via semi-structured interviews with the elderly participants and the project coordinators, observations, platform statistics, and media coverage. The insights from our empirical research additionally informed our understanding of public platforms, their users, and their dynamics.

Characteristics	Private Sector Platforms	Public Sector Platforms
Platform owner	<ul style="list-style-type: none"> ▪ Corporations ▪ Start-ups 	<ul style="list-style-type: none"> ▪ Governmental organizations and institutions ▪ Non-governmental institutions ▪ Central, regional and local government
Objectives	<ul style="list-style-type: none"> ▪ Pricing, matching, and exchange (Sundararajan 2013) ▪ Profit maximization (Prahalad/Ramaswamy 2004) ▪ Monetizing searches, social networks, professional networks, assets, human activities (Belk 2014) ▪ Generating competition, dynamism and scale 	<ul style="list-style-type: none"> ▪ Connecting and engaging citizens in current societal, environmental, governmental issues (Torres/Pina/Acerete 2006) ▪ Enhancing consumer well-being (Porter/Kramer 2011) ▪ Efficiency, inclusion and institutional change

	<ul style="list-style-type: none"> ▪ Monetizing network effects 	<ul style="list-style-type: none"> ▪ Improving the collaboration between citizens and government agencies (Zissis/Lekkas 2011) ▪ Synergizing rather than competing (ECIS 2018) ▪ Integrating inner and outer resources to create decentralized innovation (Vassilakopoulou et al. 2017) ▪ Reaching socio-economic objectives
Exemplary industries	<ul style="list-style-type: none"> ▪ Mobility ▪ Accommodation ▪ Telecommunications, media, and entertainment ▪ Retail and consumer products ▪ Banking and financial markets ▪ Electronics ▪ Energy and utilities ▪ Healthcare ▪ Insurance ▪ Manufacturing 	<ul style="list-style-type: none"> ▪ Education (<i>Bildungscloud Deutschland</i>) ▪ Housing and community amenities (<i>Wohnen für Hilfe</i>) ▪ General public services (<i>Mobile St. Gallen App; Election Website Switzerland</i>) ▪ Economic affairs (<i>BQ Portal Deutschland</i> https://www.bq-portal.de/en) ▪ Health (<i>National Citizen Health Portal heilsuvera.is</i>) ▪ Environmental protection (<i>umweltplattform.ch</i>; https://www.ecocrowd.de) ▪ Culture and religion (https://kulturverketumea.se/senaste-nytt/) ▪ Integration (https://solinetz-zh.ch/wohnungssuche/) ▪ Defense (<i>Think Cyber – Think Resilience</i> http://istanduk.org/cyber-resilience/)
Business models	<p>Customer</p> <ul style="list-style-type: none"> ▪ Consumers ▪ Participating parties on the platform ▪ Shareholders ▪ Service/product providers on the platform <p>Value proposition</p> <ul style="list-style-type: none"> ▪ services ▪ stationary offers ▪ digital marketplaces ▪ forums ▪ matchmakers ▪ enablers ▪ hubs ▪ combinations of the above <p>Value chain</p> <ul style="list-style-type: none"> ▪ engaging different parties on the platform ▪ connecting actors ▪ creating a market ▪ equipping actors ▪ helping them to provide services to other actors ▪ acting as an intermediary ▪ pairing actors ▪ mediating the service flow ▪ providing a platform for centralized exchange (Perren/Kozinets 2018, pp. 26-27) <p>Profit mechanism</p> <ul style="list-style-type: none"> ▪ commission for mediating services ▪ revenue as a retailer and service provider 	<p>Customer</p> <ul style="list-style-type: none"> ▪ Overall public ▪ Citizens ▪ Policy makers ▪ Governmental institutions ▪ Communities, interest groups <p>Value proposition</p> <ul style="list-style-type: none"> ▪ connecting citizens with other citizens ▪ providing information ▪ receiving help/assistance via the platform ▪ supports the matchmaking function of the governmental institution <p>Value chain</p> <ul style="list-style-type: none"> ▪ offerings produced by forming alliances ▪ joint cooperation between the central, regional, and local governments ▪ integration of private actors (www.platformization.org) <p>Profit mechanism</p> <ul style="list-style-type: none"> ▪ value not defined in monetary terms (Bygstad/D’Silva, 2015)

	<ul style="list-style-type: none"> ▪ financed by advertising ▪ monetization of platform services (membership fees, user charges) 	<ul style="list-style-type: none"> ▪ savings for the community by connecting citizens and engaging them in volunteering ▪ financed by the public sector or by private-public partnerships, sponsoring to cover the costs involved
Challenges	<ul style="list-style-type: none"> ▪ scaling ▪ chicken/egg problem (consumer and producer acquisition) ▪ participation of platform users 	<ul style="list-style-type: none"> ▪ citizens' perception and actual usage of the provided platform solution ▪ tackling the causes, not the symptoms ▪ active engagement of citizens

Table 2. Summary of key differences between private sector and public sector platforms

, For clarity's sake this article focuses on private and public sector platforms only, although mixed forms (hybrid platforms) are also possible. The main differences between public and private sector platforms are exemplified by means of the following characteristics.

Platform owner

The main and most obvious distinction between a private sector and a public sector platform is the platform owner.

In the case of private sector platforms, the owners are corporations, start-ups or other private sector institutions. Amazon, for example, established an online platform as its own digital trade/retail channel and additionally integrated the Amazon trade platform as an online marketplace for private people and other companies to offer used and new products.

Public sector platforms are established by governmental organizations and institutions, non-governmental institutions, and central, regional and local governments, primarily to address societal challenges and to allow citizens to connect and to exchange services. For example, the local government of the City of Munich finances a midwife placement platform to bring together expectant mothers and available midwives.

Objectives

Another characteristic that distinguishes the two platform types are the objectives.

The general goal of private sector platforms is to provide an online basis for pricing, matching, and exchange processes to suppliers and consumers (Sundararajan 2013). Private sector platforms are geared for profit maximization (Prahalad/Ramaswamy 2004), e.g. by monetizing searches, the exchange of goods, social networks, professional networks, assets, and human activities (Belk 2014). Amazon, for example, generates earnings from the platform through online retail, commissions, and advertising.

Public sector platforms address socio-economic challenges (Porter/Kramer 2011). Charitable organizations, NGOs, public policy makers or regulators provide such platforms to

allow for better match-making between different parties, for instance, during catastrophic events (Bird/Ling/Haynes 2012; Houston et al. 2015). Public platforms aim at efficiency, inclusion, institutional change, and improved collaboration between citizens and government agencies (Zissis/Lekkas 2011).

In contrast to private sector platforms that focus on creating competition and on monetizing network effects, public sector platforms focus on creating synergies (ECIS 2018; Vassilakopoulou et al. 2017) and on integrating inner and outer resources for achieving socio-economic objectives and decentralized innovation (www.platformization.org). . The goal of public platforms is not to generate profits, but to save on expenditures by delegating activities and responsibilities to citizens.

Exemplary industries

Private and public sector platforms also differ by the industries they are operating in.

Private sector platforms can typically be found in large industries of the private sector, such as mobility (e.g. UBER – Bond 2015; Cusumano 2015; Cannon/Summers 2012; Malhotra/Van Alstyne 2014; Cusumano 2015), accommodation (e.g. Airbnb – Cusumano 2015; Hawlitschek/Teubner/Weinhardt 2016; Hamari/Sjöklint/Ukkonen 2015; Malhotra/Van Alstyne 2014), telecommunications, media, and entertainment (e.g. Youtube – Belk 2014; Beer/Burrows 2010; Ritzer/Jurgenson 2010; Hamari/Sjöklint/Ukkonen 2015; Fuchs 2014; Denegri-Knott/Zwick 2012), retail and consumer products (e.g. Amazon – Cusumano 2015; Ritzer/Dean/Jurgenson 2012) as well as banking and financial markets (e.g. Kickstarter – Hamari/Sjöklint/Ukkonen 2015 and Kiva – Bajde 2009, 2012, 2013).

In contrast, public sector platforms operate in domains which are typical of the responsibilities of governmental institutions, such as education (e.g. learning, teaching, scholarships – Greenhow/Robelia/Hughes 2009), housing, community amenities, aging populations (e.g. Housing for Help – Bajde/Ottlewski 2016, Ottlewski 2018; Timebanking for the future – Ottlewski/Gollnhofer/Schouten, 2018), healthcare, social protection, economic affairs, environmental protection, public order and safety, culture and religion, recreation, and defense (OECD 2018).

Business models

According to Gassmann et al. (2014), a business model consists of four elements: the customer (who are the target customers?), the value proposition (what is offered to the customers?), the value chain (how are the offerings produced?), and the profit mechanism (why

does it generate profit?). The new developments of the platform economy result in new alliances and partnerships on the market, thus new types of business models are developing. However, the resulting business models differ between private sector and public sector platforms.

The target customers of a private sector platform business model are various consumer segments, other participating parties of the platform, and shareholders. The offers of private sector platforms are versatile and include simple services, stationary offers, digital marketplaces, forums, matchmakers, enablers, hubs, or any combination of these (Perren/Kozinets 2018). These offerings are produced by engaging different parties on the platform, creating a market, connecting, pairing or equipping actors, helping them to provide services to other actors, acting as an intermediary, mediating the service flow, and/or providing a platform for a centralized exchange (Perren/Kozinets 2018, pp. 26-27). There are different profit mechanisms such as charging commission fees for mediating services, generating revenue as a retailer and service provider, financing the platform through advertising, or monetizing the platform services by charging user or membership fees.

The target customers of public sector platforms are the overall public, citizens, communities, and interest groups. The offers of public sector platforms are diverse – e.g., matchmaking services, connecting citizens with each other or with public institutions, providing information, and providing or receiving help/assistance via the platform. These offerings are produced through alliances with other public sector platforms, with private sector providers, with the civil society, digital providers, or even with academic bodies and researchers (www.platformization.org). One specific characteristic of public sector platforms and their value chain is the joint cooperation between the central, regional, and local government along with private actors to achieve “socio-economic benefits and innovation, involving a diverse portfolio of systems and registers” (www.platformization.org). Public sector platforms strongly differ from private sector platforms with regard to the profit mechanisms as they are non-profit-oriented by nature (Bygstad/D’Silva 2015). However, they have a positive financial effect since public expenses can be reduced by entering private–public partnerships, through sponsoring, or by connecting and actively engaging citizens as, for example, in the case of *zeitvorsorge.ch*.

Challenges

A final distinction between private and public sector platforms can be made with regard to the challenges they are facing. Private sector platforms are confronted with problems of scaling, consumer and producer acquisition, and the active participation of platform participants. Public sector platforms are confronted with different challenges, such as the citizens’ perception and

actual usage of the provided platform solutions, tackling the causes and not the symptoms, and creating an active engagement of citizens through the platform.

Management Summary

Public attention is mainly focused on private sector platforms that pursue profit maximization objectives. However, public sector platforms have recently emerged providing solutions for socio-economic challenges in our highly disruptive times. They share some commonalities with private sector platforms, but are fundamentally different in their goals and premises. Moreover, there are hybrid platforms which may blend/mix the characteristics of private and public sector platforms to offer innovative solutions.

Main Propositions

- The platform economy offers new forms of interaction between different market actors.
- Regulators and public policy makers have started to provide public sector platforms in order to engage consumers/citizens for societal or economic challenges.
- Public sector platforms differ from private sector platforms in five characteristics: 1) platform owner, 2) objectives, 3) industries, 4) business model and 5) challenges.
- Hybrid platforms combine characteristics of both private and public sector platforms.
- Practitioners and public policy makers need to understand the differences between private and public sector platforms in order to successfully design, market, and manage them.

Lessons Learned

- Public sector platforms offer promising solutions for coping with societal and economic challenges.
- Analyzing various platform types according to the characteristics provided above provides unique insights into current best practices in the private and public sector domains.
- Regulators should carefully consider the potential upsides (e.g. reduction of public expenses, sponsorships/partnerships with the private sector) and downsides (e.g. unforeseen externalities, rejection of the solution by the citizens).
- Launching hybrid platforms (e.g., by entering into a traditional public sector domain) may offer new business development potentials for private sector companies.

- The success of the platform solution depends on how actively consumers/citizens and ‘producers’ are engaged on the platform and how well the offered solution fits their relevant needs and objectives.

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