MASTERS

ECONOMICS AND MANAGEMENT OF SCIENCE, TECHNOLOGY, AND INNOVATION

MASTERS FINAL WORK

DISSERTATION

WHEN PLATFORMS TEAM UP: THE ROLE OF STRATEGIC PARTNERSHIPS IN THE INTERNATIONALIZATION OF DIGITAL PLATFORMS

RICARDO DANIEL PACHECO DE ALMEIDA

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SUPERVISOR:

PROFESSOR VÍTOR CORADO SIMÕES

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ABSTRACT

The platform phenomena is central to the contemporary socio-economic paradigm. In a few decades, the platform business model has managed to disrupt and fundamentally change multiple industries. Although this topic is being thoroughly studied by contemporary academia, it still yields discoveries. This research aims to contribute to that effort by exploring the role of partnerships in the internationalization of digital platforms, from the points of view of Strategic Management and International Business. It draws from a literature review on the platform business model and the internationalization process of platform firms to formulate an overarching research question: How are local platform ecosystems established and developed? To answer this question an explanatory case-study based on two highly contrasting cases: *Microsoft Portugal* and *Too Good To Go Portugal* is developed.

This work finds that partnerships can develop platform ecosystems and create business opportunities in foreign markets. Platform firms invest and empower partners with tools and knowledge. Partner is a catch-all term that includes multiple firms playing diverse roles, organized in hierarchical fashion. Platforms can leverage on local and, sometimes, international partnerships to boost local competitiveness. Yet, international partnerships may not translate directly into local partnerships. Finally, factors such as the market credibility of the platform firm and its strategic attunement to the social, environmental, and ethical context may have a positive influence on platform diffusion in foreign user networks and ecosystems.

Keywords: Digital platforms; Platform companies; platform company internationalization; Platform ecosystems; Platform partnerships

RESUMO

O fenómeno das plataformas é central para o paradigma socioeconómico atual. Em poucas décadas, o modelo de negócio das plataformas conseguiu romper, e alterar fundamentalmente, múltiplas indústrias. É um tópico que, embora continua e extensivamente estudado pelos investigadores, ainda produz descobertas. O presente estudo pretende contribuir para esse esforço, explorando o papel das parcerias na internacionalização das plataformas digitais, dos pontos de vista da Gestão Estratégica e de Gestão de Negócios Internacionais. A questão de investigação sobrejacente a este estudo é formulada com base numa revisão de literatura sobre o modelo de negócio das empresas plataforma e o seu processo de internacionalização: Como é que os ecossistemas de plataforma locais são desenvolvidos e estabelecidos? Para responder a esta questão, é desenvolvido um caso de estudo explanatório com base em dois casos altamente contrastantes: a *Microsoft Portugal* e a *Too Good To Go Portugal*.

Este trabalho descobre que as parcerias podem desenvolver ecossistemas de plataforma e criar oportunidades de negócio em mercados estrangeiros. As plataformas investem e capacitam os seus parceiros com ferramentas e conhecimento por forma a desenvolver e enriquecer ecossistemas. O termo parceiro inclui múltiplas empresas a desempenhar diversos papéis, organizadas de forma hierárquica. As plataformas podem alavancar parcerias locais e, por vezes, internacionais, para aumentar a sua competitividade local. Ainda assim, parcerias internacionais podem não se traduzir diretamente em parcerias locais. Finalmente, fatores como a credibilidade da empresa plataforma no mercado e o seu alinhamento estratégico com o contexto ético, social e ambiental, podem ter uma influência positiva na sua difusão em mercados e ecossistemas no estrangeiro.

Palavras-chave: Plataformas digitais; Empresas plataforma; Internacionalização de empresas plataforma; Ecossistemas de plataforma; Parcerias de plataforma

"La lutte elle-même vers les sommets suffit à remplir un cœur d'homme. Il faut imaginer Sisyphe heureux."

- Albert Camus

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TERMS AND ABBREVIATIONS

App – Application

AWS – Amazon Web Services

B2B – Business to Business

BsC - Bachelor of Science

CEO – Chief Executive Officer

HQ – Headquarters

FSA – Firm-specific advantages

IB – International Business

ISV – Independent software vendor

KAMs – Key account managers

LoF – Liability of Foreigness

LoO – Liability of Outsidership

NGO – Non-Governmental Organization

RQ – Research question

SEE – Social, economical and ethical

TGTG - *Too Good To Go*

TSU – Trans-Specialization understanding

USA – United States of America

1. INTRODUCTION

The platform business model dates back thousands of years. As the internet became mainstream, by the late twentieth and early twenty-first centuries, platforms were digitalized. They became virtual spaces for different users to interact in and innovate upon, and deeply impacted the modern world. As of 2020, platform firms like *Apple*, *Microsoft*, *Amazon*, *Google,* and *Facebook* are some of biggest companies in the world. The COVID-19 pandemic only reinforced that position, and as platforms grow larger, governments around the world are looking at them critically, working to regulate their power and make them accountable. The emergence of these platforms provided an opportunity for academia to review its theoretical approaches, producing, over twenty years, a respectable body of knowledge. Nevertheless, the nature and role of partnerships in the internationalization process of platform firms has remained underexplored.

This dissertation draws from a literature review on the platform business model and the internationalization process of platform firms to formulate an overarching research question: How are local platform ecosystems established and developed? To respond to it, a case study method was developed on international platform firms with Portuguese-based ecosystems, to approach this question. This study's findings contribute to the literature in four ways. First, they show in detail how partnerships can enrich platform ecosystems and create business opportunities in foreign markets. Platform firms invest and empower them with tools and knowledge. Second, partnerships is a catch-all term that includes multiple firms playing diverse roles, organized in hierarchical fashion. Third, platforms can leverage on local and, sometimes, international partnerships to boost local competitiveness. Fourth, it should not be assumed that all international partnerships directly translate into local partnerships. Finally, factors such as market credibility and strategic attunement to the social, environmental, and ethical context may have a positive influence on platform diffusion in foreign user networks and ecosystems.

This study can help managers understand the relevance of platform partnerships in international platform strategies. It shows that, besides considering platform type and geographic scope of the internationalization effort, managers should distinguish the partnerships they need, and define a differentiated approach to them. Platform firms can enrich and expand their ecosystems while boosting local competitiveness through partnerships. Thus, it is important to educate them on how to best use the platform and its

technologies. Voluntarily moderated user groups can appear organically around a platform. Gathering inputs from them may be an opportunity for platforms and partners.

The structure of this dissertation encompasses eight chapters. The first one introduces the research subject and its central concerns. The second provides a review of the key literature regarding the platform business model, the platform internationalization process and expands on platform partnerships in the international context. Then, the research questions are developed. A presentation of the methodological approach follows. The fifth and sixth chapters present each case and their empirical results, respectively. The seventh combines the knowledge and evidence previously gathered to discuss the findings. Finally, the last chapter provides the conclusion to the study.

2. LITERATURE REVIEW

This chapter presents a literature review on platform companies (PCs) and their internationalization. It gathers knowledge from the fields of economics and management of technology and innovation, and international business, to explore the role partnerships play in the internationalization of digital platforms. The literature review is structured as follows: (i) definition and characterization of PCs; (ii) the internationalization process of PCs; and (iii) teaming-up in platform internationalization and its strategic implications.

2.1. The platform business model

The platform business model is older than one might think. The concept of having dedicated spaces for customers and suppliers to meet dates back to as early as 3000 BC, the earliest confirmed records referring to Mesopotamian bazaars (Pourjafar, Amini, Hatami Varzaneh, & Mahdavinejad, 2014). The first official street fair in the county that would later become Portugal was founded in 1125 AD, when the region of Ponte de Lima was granted the right to start hosting its "Feira de Ponte", by Teresa, countess of the Portuguese county (D'Aurora, 2012).

By the beginning of the twenty-first century and as internet usage expanded, data became an economic resource of growing importance, and the technology for extracting and storing it became increasingly cheap (Srnicek, 2017). Eventually, platforms came to play an essential role in the life of millions of people. As of May, 2020, four out of five of the biggest companies in the world, by market capitalization, were platform companies: *Microsoft*, *Apple Inc.*, *Amazon.com*, and *Alphabet Inc.* (Statista, 2020).

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The COVID-19 pandemic reinforced their dominance. One such example is the explosive growth of video conferencing platforms. Even though working from home became the norm for many professionals, meeting face-to-face remained essential. *Zoom* grew from 10 million daily users by December 2019, to 300 million by the end of April 2020 (Warren, 2020a). Meanwhile *Microsoft*'s competing platform, *Microsoft Teams*, jumped 70%, from March to April 2020, to 75 million daily active (Warren, 2020b).

Platforms work on top of digital infrastructures (Van Alstyne, Parker, and Paul Choudary, 2016; Constantinides, Henfridsson, and Parker, 2018; Nambisan, 2017). harness the power of data and external expertise as a resource (Monaghan, Tippmann, and Coviello, 2019; Parker, Van Alstyne, and Choudary, 2016; Tiwana, Konsynski, and Bush, 2010) better than their counterparts (Brouthers, Dung, and Rothlauf, 2015) making them dynamic engines for innovation (Cusumano, Gawer, and Yoffie, 2019; Evans and Schmalensee, 2016; Kane et al., 2014; Parker, Van Alstyne, and Evans, 2018; Tan et al., 2015). Platforms grow and scale faster than other business models (Cusumano et al., 2019; Parker et al., 2016). This business model disrupted, inverted, or downright eliminated many of the characteristics of its twentieth century counterparts (Van Alstyne et al., 2016; Evans and Schmalensee, 2016; Parker et al., 2016).

Drawing on the works of Cusumano, Gawer, & Yoffie (2019), Evans and Schmalensee (2016), Van Alstyne, Parker and Choudary (2016), Simões (2018, 2019) and Simões and Miranda (2019), *digital platforms*, henceforth referred to as platforms, are defined as *digitally empowered businesses aimed at providing a virtual space for different users to interact directly and/or innovate upon*.

2.1.1. Characterization

The previous section glanced over the history of the platform model, its importance in contemporary society and economy, and defined platforms in their broader sense. This section expands on *how* and *why* platforms work.

At the core of every platform are three key elements (Parker et al., 2016): the *users*, the *value unit,* and the *filter*. *Users* are all the different groups of actors, or *market sides*, which participate in the platform in different ways: c*ustomers*, who enter the platform to access a product or service (Cusumano et al., 2019; Evans & Schmalensee, 2016; Parker et al., 2016; Rochet & Tirole, 2003, 2006), *suppliers*, who offer their services in the

platform (Eisenmann, 2008; Katz and Shapiro, 1994) and *complementors*, who provide complementary services or assets for the platform (Helfat and Raubitschek, 2018; Simões, 2019). Complementors produce innovations that "add functionality or access to assets that make the platform increasingly useful" are considered *third-party innovators* (Cusumano et al., 2019:19). The *value unit* represents the exchange of information, product, or service, that brings value to the user. *Filters* are the digital algorithms used by platforms to enable users to exchange the *value units* they want (Parker et al., 2016).

When starting-up, platforms 'pull' users to achieve critical mass and overcome the so-called 'chicken-or-egg paradox' (Cusumano et al., 2019; Hagiu, 2009; Parker et al., 2016): one side of the market must be 'pulled' first for other sides to join-in (Caillaud & Jullien, 2001; Cusumano et al., 2019; Hagiu, 2009; Parker et al., 2016). Even after the initial phase, a suitable value proposal must be offered by the platform at all times (Parker et al., 2016), as a means to keep competition at bay. Meanwhile, by using and improving their filters, platforms 'match' users among themselves, to try ensuring the most appropriate interactions (Evans & Schmalensee, 2016; Parker et al., 2016).

Since platforms do not produce value by themselves (Parker et al., 2016), they profit by 'facilitating' network connections and the creation of complementary innovations (Cusumano et al., 2019; Evans & Schmalensee, 2016). They can fine-tune their barriers to entry: reducing them, so that more users can interact; or increasing them, to direct interactions towards a specific goal, reducing redundant user links (Brouthers et al., 2015; Cusumano et al., 2019; Eisenmann et al., 2008; Parker et al., 2016). Platforms may endow complementors and suppliers with tools that ease the workload of producing, or making content available, facilitating their activities (Parker et al., 2016). They can sometimes provide technological building blocks which enable third-party innovators to develop new services (Cusumano et al., 2019). For instance, *YouTube Studio*, provided by the video-content platform *YouTube*, allows for content creators to edit and record videos on-the-go and check analytics, for free, with no additional hardware requirements.

Platforms are based on access instead of ownership (Dunning & Wymbs, 2001; Parente, Geleilate & Rong, 2018; Simões, 2018): they harness contributions from their network, unlocking spare capacity and boosting demand (Parker et al., 2016). Therefore, platforms reduce the need to deploy capital, and manage inventory or physical assets (Parker et al., 2016).

Parker, Alstyne and Choudary (2016) argue that platforms reduce the need for *content gatekeeping*. The logic is that they generally do not have to choose which products, services, or content to showcase, reducing costs and making them scale more efficiently (Parker et al., 2016). For instance, a *Netflix* user should get relevant content recommended to him without human intervention, while *Blockbuster* had to have professionals choosing which movies to display on its shelves. This notion can be debated, particularly in 2020. E.g. *Amazon Marketplace* was ordered by the *US Environmental Protection Agency* to remove the products falsely claiming to kill the virus SARS-CoV-2, in June 2020 (Robertson, 2020). Likewise, as tensions rose around the USA's presidential elections, in November 2020, *Twitter* and *Facebook* were quick to ban and censor posts and groups involved in spreading misinformation (Kelly & Schiffer, 2020). That arguably culminated in censoring the incumbent president himself (Sanz, 2020). This denotes that platforms can also be considered *gatekeepers of content*; in that they hold the key for accessing all information and resources available within their boundaries, a perspective that is shared by the European Commission (European Commission, 2020; Lomas, 2020).

Platforms may feature *dynamic pricing structures* that they can use to maneuver network effects and profit (Cusumano et al., 2019). They carefully choose which sides to 'charge' and which to 'subsidize' in order to achieve their strategic goals and handle competitors (Armstrong & Wright, 2007; Cusumano et al., 2019; Evans, 2005; Evans & Schmalensee, 2016; Hagiu, 2006, 2009; Parker et al., 2016; Rochet & Tirole, 2003; Teece, 2018). *Facebook* exemplifies this by charging the advertiser side of its platform, even though firms and individuals can create accounts and business pages for free.

Most platforms are *modular* by design (Jacobides, Cennamo, & Gawer, 2018; Parker et al., 2016), which is facilitated by their digital nature (Alcácer, Cantwell, & Piscitello, 2016; Baldwin & Clark, 2000). They are composed of multiple interdependent, interconnected, sub-systems (Schilling, 2000) intended to work together in seamless fashion. These can be developed and maintained by external agents, requiring minimal coordination (Jacobides et al., 2018; Tiwana et al., 2010). Modularity partly explains why ecosystems tend to develop around platforms (Jacobides et al., 2018). It further improves the capacity to adapt to meet specific needs, making platforms *evolvable* (Baldwin, 2011; Baldwin & Woodard, 2009; Chen et al., 2019; Gawer, 2009; Tiwana et al., 2010). This way, platforms can adapt to better reach new users and grow their user networks.

2.1.2. Network Effects

Consider the following hypothetical scenario: as the pager was first being launched onto the market, it had two initial users. Only one connection was possible. Shortly after, three new users joined in. Then, ten connections were possible. When, twenty people jumped on board, suddenly there were three-hundred possible connections. Fast-forward to one-hundred people and four-thousand-fifty connections were available.

This effect is called Metcalfe's law, a non-linear network growth dynamic which plays a crucial role for platforms (Cusumano et al., 2019; Evans & Schmalensee, 2016; Parker et al., 2016; Shapiro & Varian, 1998). These are network effects: self-reinforcing feedback loops, generated as users develop connections between them, increasing platforms' utility and value (Cusumano et al., 2019; Evans & Schmalensee, 2016; Parker et al., 2016). They act as important market drivers for the platform business (Cusumano et al., 2019), a governance mode and a strategic resource (Banalieva & Dhanaraj, 2019).

Four different types of network effects have been identified (Evans & Schmalensee, 2016; Parker et al., 2016; Rochet & Tirole, 2003):

Table I - Same-side and cross-side network effects by type.

	Positive network effects	**Negative network effects**
Same-side network effects (direct effects)	The greater the number users on the same side, the greater the benefit for each of them. E.g. The larger *Facebook*'s network is, the more possible connections each user has, increasing the value of having an account.	The greater the number of users on the same side, the lesser the benefit for each of them. E.g. Too many customers using *Uber* at once leads to higher pick-up times and prices for them.
Cross-side network effects (indirect effects)	Users benefit from having more users in other sides. E.g. The more suppliers are available on *Amazon*, the more options its customers have, along with overall lower prices.	User growth in one side leads users in other sides to leave or reduce platform adoption. E.g. If *YouTube* has too many advertisers, consumers may leave the platform or start using ad-blockers. This effect may then spill-over to the content producers, who loose both potential audience and revenue.

Source: developed by the author, based on Evans and Schmalensee (2016) and Parker et al. (2016)

Indirect network effects are often positive (Cusumano et al., 2019; Helfat & Raubitschek, 2018) and as important for platform dynamics as direct effects (Cusumano et al., 2019; Evans & Schmalensee, 2016; Parker et al., 2016). By nurturing positive network effects, platforms may achieve virtuous cycles of growth (Cusumano et al., 2019; Evans & Schmalensee, 2016; Parker et al., 2016). Thus, network effects are a main source of competitive advantage and value creation for platforms (Brouthers et al., 2015; Chen et al., 2019; Parker et al., 2016; Stallkamp & Schotter, 2019).

This virtuous cycle manifests itself as a cross-side feedback loop (Parker et al., 2016): demand grows, bringing more users to the platform, whilst bolstering geographical coverage and local penetration. The latter effect tends to bring about faster services and lower prices, boosting demand and reinforcing the cycle (Evans & Schmalensee, 2016; Parker et al., 2016). Self-reinforcing network effects may lead to winner-takes-all, or winner-takes-most, market outcomes (Cusumano et al., 2019), making platforms tendentially monopolistic businesses (Cusumano et al., 2019; Srnicek, 2017). To avoid that, fostering competition is crucial. In fact, in July 2020, the chief executive officers (CEOs) of *Facebook*, *Amazon*, *Google* and *Apple* were summoned to an hearing in the Congress of the United States of America (USA) due to concerns over the competitive tactics used by these firms (Euronews, 2020; Fung, 2020). During the hearing, congress representatives stated that these companies "have monopoly power. Some need to be broken up, all need to be properly regulated and held accountable" (Euronews, 2020, para:5).

The greater the number of users, the harder it is for the algorithms to manage data and effectively match them. When this happens, platforms risk worsening service times, quality, and hurting demand (Parker et al., 2016). In other words, growth in numbers may alienate new users. These are negative network effects, a key concept of platform governance. To avoid them, platforms must balance frictionless entry with proper curation (Constantinides et al., 2018; Evans & Schmalensee, 2016; Parker et al., 2016). This prompts platforms to fine-tune their architectural and governance rules to double as control mechanisms while incentivizing users' engagement with one another in a mutually valuable fashion (Constantinides et al., 2018). Lack of proper curation, or content gatekeeping, can lead users to leave the platform, as evidenced when more than one thousand companies which advertised on *Facebook* boycotted it, based on the platform's alleged mishandling of hate speech and misinformation (Hsu & Lutz, 2020).

Although network effects are important platform market drivers, they are not the single explanatory variable for a platform's market success (Cusumano et al., 2019). *Multihoming*, a platform-specific effect, is also relevant, as well as the conventional management concepts of *differentiation*, *niche competition* and *market barriers to entry*.

2.1.3. Other market drivers

Multihoming happens when users affiliate with multiple platforms at once for similar purposes (Cennamo, Ozalp, & Kretschmer, 2018; Cusumano et al., 2019; Hagiu, 2009). A user can log into *Instagram* and *Twitter* at the same time, as well as a programmer can develop an application that is available on iOS and Android, for the same reason. That creates hidden costs (Tiwana et al., 2010), impacting platforms' potential profit by restraining its ability to manage prices dynamically (Cusumano et al., 2019; Hagiu, 2009), reducing usage times, and forcing difficult strategic decisions (Cusumano et al., 2019).

Differentiation and *niche competition* dynamics also drive platform markets (Cennamo et al., 2018; Cusumano et al., 2019; Li, Liu, & Bandyopadhyay, 2010; Parker & Van Alstyne, 2005). Network effects and the probability of winner-takes-all market outcomes are reduced when the market is a heterogeneous group of niche players (Cusumano et al., 2019). Homogenous markets may reinforce network effects, pulling in most potential users, which may tip the market towards one platform (Cusumano et al., 2019).

Barriers to entry also exist in platform markets (Cusumano et al., 2019; Simões, 2019). Network effects themselves may act as entry barriers (Cennamo, 2019), since they can make the opportunity cost of changing to a competing platform too high for the user (Cusumano et al., 2019). New entrants in a platform market must offer revolutionary functionalities, find the right ecosystem partners, or engage in *platform envelopment* (Eisenmann et al., 2011). Envelopment happens when a platform enters another platform's market by launching attacks to acquire it or a competitor, forming a multi-platform bundle by integrating it into its own functionality (Eisenmann et al., 2011). Furthermore, platforms can be affected by *barriers to continuity*. On August 2020, for example, the president of the USA issued a couple of executive orders which banned any USA-based transactions with Chinese companies *Tencent* and *ByteDance*, the owners of *WeChat* and *TikTok*, respectively (Singh, 2020).

2.1.4. Ecosystems

Ecosystems are networks of inter-dependently connected firms, individuals, and institutions which interact with one another (Jacobides et al., 2018), and co-evolve their capabilities and roles (McIntyre & Srinivasan, 2017). They tend to develop around platforms, a feature facilitated by modularity (Jacobides et al., 2018; Li et al., 2019;

Teece, 2018). Platforms aim to develop ecosystems dynamically (Cusumano et al., 2019), since they operate under the assumption that value is created by orchestrating multiple co-specialized partners (Boudreau, 2017).

Platform-based ecosystems are composed by a platform, its suppliers, complementors and ecosystem partners (Ceccagnoli, Forman, Huang, & Wu, 2012; Gawer & Cusumano, 2008; Helfat & Raubitschek, 2018; Simões, 2018), how they connect and organize (Jacobides et al., 2018), and other actors, such as regulatory bodies, institutions and local governments (Simões, 2019). Some of the actors connect to the platform via technical standards, and/or open-source and shared technologies (Jacobides et al., 2018).

Although ecosystems cannot generate positive cross-side effects by themselves (Helfat & Raubitschek, 2018), platforms draw value from complementors they generally do not know nor manage (Parker, Van Alstyne, & Jiang, 2017), allowing them to retain some control over their assets (Jacobides et al., 2018). A governance structure must be designed, since it involves the orchestration of many of the ecosystem's players, and the setting up of formal mechanisms for disciplining, coordinating and incentivizing innovation among ecosystem partners (Boudreau, 2017; Ceccagnoli et al., 2012; Constantinides et al., 2018; Gawer & Cusumano, 2008; Helfat & Raubitschek, 2018; Jacobides et al., 2018). Modularity alleviates this tension by acting as a replacement for relationship governance, "even when cultural distance among partners is high" (Alcácer et al., 2016:501).

2.2. *Platform Internationalization*

At a first glance, internationalizing might seem a logical and simple process for platforms to reach new users, ecosystems and create more value (Parente, Geleilate, & Rong, 2018). Although most research on platforms assumes a single-country context (Stallkamp & Schotter, 2019), an in-depth study on their internationalization reveals a complex reality. As the digitalization of the economy provided an opportunity for the contemporary International Business (IB) field to review its theoretical assumptions and frameworks (Alcácer et al., 2016; Banalieva & Dhanaraj, 2019; Dunning & Wymbs, 2001; Johanson & Vahlne, 2009; Li et al., 2019; Simões, 2019; Vahlne & Johanson, 2017, 2020), the rise of the digital platforms became a new focus for IB research (Alcácer et al., 2016; Brouthers et al., 2015; Chen et al., 2019; Li et al., 2019; Miranda & Simões, 2019;

Monaghan et al., 2019; Nambisan, Zahra, & Luo, 2019; Ojala, Evers, & Rialp, 2018; Parente et al., 2018; Simões, 2019, 2018; Stallkamp & Schotter, 2019).

The following sections introduces the concepts relevant to understanding the internationalization process of platforms through the lenses of contemporary IB literature. First, this study presents the concepts of the Liabilities of Foreignness and Outsidership (LoF and LoO) and how they impact platforms. Second, it expands on the dynamics of network effects in an international context.

2.2.1. *Liabilities of Foreignness and Outsidership*

Internationalization is the process through which firms establish and develop their operations across borders (Welch & Luostarinen, 1988). These studies focus on how actors discover, approach, evaluate and exploit opportunities abroad (Oviatt & McDougall, 2005). The Uppsala internationalization model stems from one of those studies, developed by Johanson & Vahlne in 1977, and later reviewed in 2009. Internationalization was first seen as a gradual process, both a risky endeavor and an opportunity to capture foreign value (see e.g., Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975). Based on their empirical research in a Swedish setting, Johanson & Vahlne (1977) found that firms developed their international operations incrementally. Instead of starting by heavily investing abroad, companies would first set their foot in a foreign market by finding a local importer, with insider knowledge, who could promote and sell their products there. As revenue grew, they replaced them, setting-up a sales office or an office in that market.

Firms accumulated knowledge and experience until they overcame the *psychic distance* they had with an external market (Johanson & Vahlne, 1977), a concept that later became known as *Liability of Foreignness* (LoF) (Zaheer, 1995). In other words, relational hazards, along with a lack of familiarity and legitimacy, can impact a firm's ability to successfully provide their services in a foreign market (Brouthers et al., 2015).

When Johanson & Vahlne (2009) updated their model, they introduced the concept of *Liability of Outsidership* (LoO). Markets were now seen as international networks of linked firms, rather than as an assortment of individual suppliers and customers. From this perspective, relationships within the network can be used to access new information and knowledge, and to build trust and commitment (Johanson & Vahlne, 2009). Firms

without a solid foothold in a relevant network of a foreign market are outsiders. A strong commitment to their partners helps firms overcome this, by allowing them to access that network's insider knowledge and absorb it into their knowledge base (Johanson & Vahlne, 2009). Then, they can identify opportunities through relevant relationships where outsiders cannot (Vahlne & Johanson, 2013, 2020). Thus, insidership is a necessary condition for a firm's successful internationalization (Johanson & Vahlne, 2009). In other words, liabilities of foreignness have to do with psychic and cultural distance, while liabilities of outsidership are related to the difficulties and uncertainty that stem from not belonging to the relevant network.

Platforms may be particularly afflicted by liabilities of outsidership (Brouthers et al., 2015; Chen et al., 2019; Parente et al., 2018; Simões, 2019), a by-product of their dependence on creating and orchestrating user networks to produce value, and the fact that national boundaries impact the diffusion of international user networks, reducing the accumulated value that can be accessed by new entrants (Chen et al., 2019; Stallkamp & Schotter, 2019). These liabilities, along with local regulations, language and culture, are important variables in the internationalization process of platforms (Simões, 2019).

On the other hand, platforms can interact directly with their stakeholders. That enables them to experiment directly with their users, making them able to scale, learn and adapt quickly, with much less of a physical footprint (Monaghan et al., 2019) than other business models. They may enter foreign markets in different ways from the traditional firms that Johanson & Vahlne (2009) studied, which may lessen the importance of building and fostering relationships to enter and penetrate foreign markets (Monaghan et al., 2019). Such liabilities deeply impact the dynamics of the platform internationalization process, the development of cross and multi-country ecosystems, and the behaviour of network effects themselves (Chen et al., 2019; Li et al., 2019; Stallkamp & Schotter, 2019). For that reason, they demand careful preparation and strategizing to overcome (Monaghan et al., 2019; Ojala et al., 2018; Simões, 2019; Zaheer, 1995).
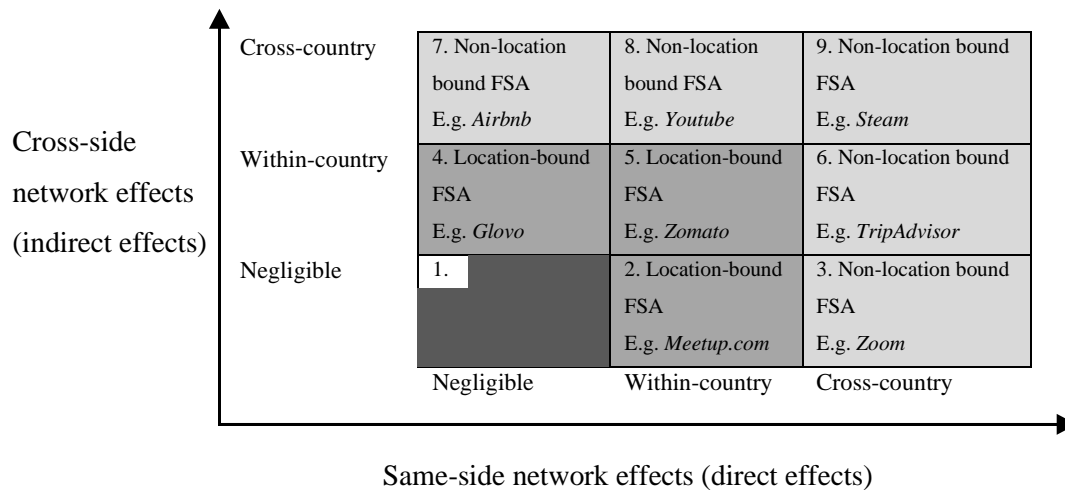
2.2.2. *The geographical scope of network effects*

The international context adds another layer of complexity to the phenomenon of network effects. Beyond the differences between direct and indirect, negative and positive network effects that were mentioned previously, Stallkamp and Schotter (2019) suggest there may be an international dimension to them. From this perspective, platform

networks may have *national*, *cross-country,* or *negligible* effects internationally, which can provide *location* or *non-location bound firm-specific advantages* (FSA). FSA are the strengths a firm has, relative to its competitors, which allow for its survival, profitability and growth (Rugman & Verbeke, 2001; Verbeke & Merchant, 2012). A platform's user network can be a source of FSA (Peteraf & Barney, 2003; Stallkamp & Schotter, 2019). When competitive advantages granted by these networks can be transferred to other countries, they are considered *non-location bound FSA* (Stallkamp & Schotter, 2019). Platforms with *non-location bound FSA,* with large user networks, may generally reduce the impact of the LoF and LoO, while enhancing their competitiveness with local rivals, at the same time (Rugman & Verbeke, 1992, 2003; Stallkamp & Schotter, 2019).

Platforms can range from fully digital spaces that can be used by anyone in the world, like *Youtube*, provided that there are no access barriers, such as local regulations or governments, cultural or language differences, or a relevant technology gap, to applications that require geographical proximity between its users (Miranda & Simões, 2019; Simões, 2019), like *Meetup.com*. Moreover, many platforms feature a prevalence of direct network effects, like *Twitter*, while others feature more intense indirect effects, like *eBay*. Some platform's network effects translate better into an international context, and others require careful planning. *Airbnb* is a platform with cross-country indirect network effects and negligible direct effects: it allows customers from all over the world to access the offerings of local suppliers. For *Glovo,* national and local boundaries matter, since most transactions can only happen where there is a partner network that can guarantee the delivery.

When platform-based transactions are tied to physical components, users and complementors need to be geographically close-by (Li, Shen, & Bart, 2018; Li et al., 2019; Miranda & Simões, 2019; Simões, 2019). *Google* can theoretically offer their services in a new country without having to invest in new local data center, provided that the current data infrastructure has the capacity to sustain the influx of connections from the new network, and that no other factors create the need for a new local data center. But *Uber Eats* should need, at the very least, to develop a local ecosystem of partners to deliver their meals. In other words, network effects do not spread homogeneously across the world (Chen et al., 2019; Simões, 2019; Stallkamp & Schotter, 2019) and, sometimes, platform-based user interaction is mostly local (Ghemawat, 2016).

		Negligible	Within-country	Cross-country
Cross-side network effects (indirect effects)	Cross-country	7. Non-location bound FSA E.g. *Airbnb*	8. Non-location bound FSA E.g. *Youtube*	9. Non-location bound FSA E.g. *Steam*
	Within-country	4. Location-bound FSA E.g. *Glovo*	5. Location-bound FSA E.g. *Zomato*	6. Non-location bound FSA E.g. *TripAdvisor*
	Negligible	1.	2. Location-bound FSA E.g. *Meetup.com*	3. Non-location bound FSA E.g. *Zoom*

Same-side network effects (direct effects)

Source: developed by the author, based on Stallkamp and Schotter (2019)

Figure 1 - The international dimension of same-side and cross-side network effects.

Platforms are not suited to internalize in traditional IB sense (Buckley & Mark, 1976), but to access, orchestrate and manage ecosystems, and create markets (Simões, 2018). In fact, platforms may follow an *externalization* logic (Chen et al., 2019; Li et al., 2019). Their value-adding activities stem from networks of geographically disperse users, outside the platform itself (Chen et al., 2019; Coviello, Kano, & Liesch, 2017). Hence, ecosystem governance is central to platform internationalization (Simões, 2019).

Ecosystems are so important for the platform business model that researchers argue for the existence of *ecosystem-specific advantages* (ESAs) (Li et al., 2019). As stated, platforms generate value from outside themselves (Parker et al., 2017), deriving advantages from network effects (Li et al., 2019). They exploit the performance and knowledge of firms in their ecosystem, and benefit from economies of co-specialization, while being able to tap into the innovative potential of their ecosystem users (Li et al., 2019). ESAs arise from the unique combination of ecosystem users, the positive network effects they foster, and the *de facto* governance of that ecosystem (Li et al., 2019). A relevant component of platform ecosystem management is the development of partnerships with external agents, which is studied in the next section.

2.3. Teaming-up: partnerships in platform internationalization

Platforms disrupt the rules of last century's business theory, and the digital revolution brought about new trends of inter-organizational collaboration and openness (Banalieva & Dhanaraj, 2019; Chesbrough, 2003; Cusumano et al., 2019; Evans & Schmalensee, 2016; Li et al., 2019; Parker et al., 2016). They are asset-light (Cusumano et al., 2019; Evans & Schmalensee, 2016; Parente et al., 2018; Parker et al., 2016) and operate "on top

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of digital infrastructures" (Constantinides et al., 2018:382). Platforms aim to cultivate their ecosystems and user networks (Cusumano et al., 2019; Parente et al., 2018; Srnicek, 2017) from which they create value (Parker et al., 2017). Nevertheless, cooperation and co-creation dynamics fall outside most of the existent IB literature (Li et al., 2019).

Although data can freely flow through borders (Dunning & Wymbs, 2001; Parente et al., 2018), platform internationalization is more complex than it might seem at first glance (Simões, 2019). Ecosystems do not spread homogeneously across the world, and network effects may sometimes be influenced by national and local boundaries, and even governments (Chen et al., 2019; Li et al., 2019; Simões, 2019; Stallkamp & Schotter, 2019). Furthermore, platforms are affected, to a lesser or greater extent, by liabilities of foreignness and outsidership (Brouthers et al., 2015; Chen et al., 2019; Monaghan et al., 2019; Simões, 2019). This section explores the multiple roles partnerships may have in the internationalization of platforms and expands on its strategic implications.

2.3.1. *The relevance of platform partnerships*

By their very nature, platforms require skills that traditional businesses usually do not possess (Cusumano et al., 2019). For the purposes of this study, partners are defined as all entities, be it firms, governments, or other institutions, that collaborate with the platform in mutually agreed fashion, either via formal or informal channels. Partnerships offer a way for platforms to acquire complex skills and knowledge that they would struggle to develop alone (Cusumano et al., 2019). They allow platforms to innovate (Cusumano et al., 2019), co-create value (Ceccagnoli et al., 2012; Deloitte, 2017; Parker et al., 2018), as well as facilitate the commercialization (and comparison) of goods and services (Deloitte, 2017). Platforms promote the establishment of partnerships by not exercising direct control over their ecosystem's users (Cusumano et al., 2019), even though power dynamics are still present. To the point that ecosystem agents can rebel against the platform, as illustrated by *Epic Games*' public communications and judicial action against *Apple*, in the aftermath of *Fortnite*'s ban from the *Apple Store*, or by the aforementioned advertiser boycott on *Facebook* (Hsu & Lutz, 2020; Satt, 2020).

Cooperation and co-creation are important for platforms (Parker et al., 2016). Co-creating with partners provides unique business and networking opportunities, allowing the platform to generate more value from its ecosystems (Deloitte, 2017; Parker et al., 2018). Partnerships with local government, regulators or other institutions may also help

platforms gain some leverage in foreign markets, as well as very profitable and stable contracts. *Amazon Web Services* (*AWS*), for example, has a specific Partner Program exclusively dedicated to the public sector (AWS, 2020).

Platforms operate under the assumption that they can create value by orchestrating multiple co-specialized ecosystem partners (Boudreau, 2017). Partners can learn and co-create with each other (Brouthers et al., 2015; Ceccagnoli et al., 2012; Lew, Sinkovics, Yamin, & Khan, 2016), and may even provide 'best practice' examples (Brouthers et al., 2015). To stimulate this, platforms can, for example, create partnership programs (Ceccagnoli et al., 2012), which may be a gateway for establishing governance rules and managing relationships within the platform ecosystem. Through partnership programs, platforms endow their ecosystem partners with tools and knowledge, facilitating their activities and enabling them to innovate on top of the platform (Ceccagnoli et al., 2012; Deloitte, 2017). In some programs, as the relationship develops, partners unlock new 'relationship tiers' to get extra benefits. This can also be an indirect mechanism to foster inter-partner competition.

Platforms can nurture *co-opetition relationships* among partners within their ecosystems (Armstrong, Brandenburger, & Nalebuff, 1997; Hagiu, 2011). This may boost the platform's performance, since cooperation is a necessary condition for creating value, and competition can work as a different incentive to innovate (Alcácer et al., 2016). *YouTube* hands out prizes to the hosts of its most watched channels, fostering competition, while promoting *YouTube Rewind*, a yearly showcase-style video featuring *YouTube*'s better-known faces, as an incentive to cooperate. At the content producer level, co-opetition dynamics are common: to boost engagement metrics, *youtubers* frequently feature their counterparts in videos, both to collaborate with them or to criticize them.

Platform-to-platform partnerships (Hagiu, 2011), akin to the platform envelopment process (Eisenmann et al., 2011), may generate the ability to *cross-fertilize networks*, helping platforms reach new users and boost their networks growth. Likewise, collaborating enables platforms to offer a diversified bundle of integrated services and more functionality to their users, possibly increasing their reach and innovative potential. Partnerships between platforms can also allow them to co-develop and line-up technical frameworks. This approach may work as an alternative to platform envelopment. E.g. in June 2020, *Microsoft* and *Google* established a partnership focused on improving cross-

platform compatibility of the Progressive Web Apps, so that more applications could run on both Windows and Android in more efficient fashion (Spence, 2020).

2.3.2. Partnerships in platform internationalization: Strategic implications

As stated, user networks are key strategic resources (Banalieva & Dhanaraj, 2019; Cusumano et al., 2019; Stallkamp & Schotter, 2019), a main source of competitive advantage and value creation for platforms (Cusumano et al., 2019; Parker et al., 2016; Stallkamp & Schotter, 2019). LoF and LoO should be accounted for due to their impact on these effects (Johanson & Vahlne, 1977, 2009; Li et al., 2019; Miranda & Simões, 2019; Parente et al., 2018; Simões, 2019; Stallkamp & Schotter, 2019; Vahlne & Johanson, 2013, 2017, 2020; Zaheer, 1995). Partners in foreign markets can allow platforms to access insider knowledge, resources and identify opportunities where outsiders cannot, lessening the effects of the LoF and LoO (Johanson & Vahlne, 2009; Simões, 2019; Stallkamp & Schotter, 2019; Vahlne & Johanson, 2017, 2020). They may work as gateways into high-clout countries which can strengthen network effects (Chen et al., 2019). Committed partnerships may also improve quality, a factor positively associated with the successful penetration of foreign markets (Chen et al., 2019).

Differences in language and restrictions in international information flows between partners may impinge upon the platform's internationalization process (Simões, 2019). Nonetheless, some platforms are able develop *trans-specialization understanding* (TSU) with international partners (Lew et al., 2016). That is, they are capable of efficiently accessing and combining the existent knowledge from different actors, locations, and with diverse specializations, despite cultural differences. Managing the internationalization of a platform business implies establishing, nurturing, and managing ecosystems. Each localized ecosystem is different in its characteristics, dynamism, and geographic presence, providing the platform with a unique assortment of competitive advantages (Li et al., 2019; Miranda & Simões, 2019; Simões, 2018).

Partnerships may help develop or enhance ecosystem-specific advantages, a factor that is relevant for successful international competition (Li et al., 2019). Although locally created partnerships may develop into global partnerships and vice-versa, this subject remains underexplored in IB platform literature, such as the dynamics for selecting, approaching, and negotiating with partners in different contexts. It is also still unclear when partnership-leveraged international expansion is preferable to more traditional

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platform envelopment strategies. The concept of partnerships itself in the context of platform literature and platform communication is ill-defined. Yet, they may provide a means for platforms to overcome some of the challenges related to their expansion into foreign markets, helping them to reach new users, establish new localized ecosystems and boost the performance of pre-existing ones.

To sum up, literature on the internationalization of platform firms rarely focuses on partnerships or their complexity. Yet, platform managers recognize their importance and invest in mechanisms like partnership programs and events to develop those relationships. In fact, platforms operate under the assumption that they can orchestrate co-specialized partners to create value (Brouthers et al., 2015), whom can make platform ecosystems develop, evolve and differentiate, benefiting international competitiveness (Alcácer et al., 2016; Ceccagnoli et al., 2012; Chen et al., 2019; Deloitte, 2017; Hagiu, 2011; Li et al., 2019). Furthermore, they may bring about new business opportunities and knowledge, and help platforms overcome LoO and LoF (Johanson & Vahlne, 2009; Lew et al., 2016; Simões, 2019; Stallkamp & Schotter, 2019; Vahlne & Johanson, 2017, 2020).

This literature review presents an overview on what platforms are and how they work, their unique characteristics, the internationalization process of platform firms, and the roles that partnerships may have in that process. The following chapter expands on the rationale behind the three research questions that emerge from this review.

3. RESEARCH QUESTIONS

The purpose of this dissertation is to understand what the role of partnerships is in the establishment and development of local ecosystems in the context of platforms' internationalization. The body of literature that was analyzed in the previous section has provided an understanding of what digital platforms are, as well as their general characteristics and typology. This knowledge is essential to understanding how platforms may behave internationally and set their ecosystems. Recent studies on digital platforms already explore the subject of platform internationalization and, for example, its relation to local, national, and regional boundaries (Brouthers et al., 2015; Chen et al., 2019; Li et al., 2019; Simões, 2019; Stallkamp & Schotter, 2019). Nevertheless, research on the role of partnerships in that process is scarce. In fact, most of the strategic implications presented in the last chapter had to be inferred from multiple sources. Platform managers,

however, seem to assign a certain degree of importance to the establishment of partnerships internationally, e.g., devoting time and resources to developing partnership programs and other teaming-up enabling activities.

When expanding to foreign geographies, do platforms start-up and develop local ecosystems by leveraging the international partnerships available there, and then develop said ecosystems by punctually identifying local opportunities and relationships? Or do they scan for potential local partners to kick-start the ecosystem first, and then develop it by leveraging on international and local partnerships? This study approaches these issues by first formulating the main research question, Q1, and then drilling it down into two additional research questions, Q1.a and Q1.b, presented below.

Establishing localized ecosystems to enter foreign markets is essential to every platform. But how these ecosystems are established and developed is underdeveloped in the current literature. Likewise, the nature and role of platform partnerships in that process is unclear. By better understanding this process, new cues can be provided for platform managers to make better informed decisions for international expansion. It is an opportunity to advance the study of the platform business model and shed another light on its intricacies. Thus, the overarching question of this study is formulated as follows:

Q1) How are local platform ecosystems established and developed?

According to extant literature, partners may endow the platform ecosystem with advantages that improve its local competitiveness (Chen et al., 2019; Lew et al., 2016; Li et al., 2019). Additionally, partnerships can range from global to local relationships, and all of them may play a role in platform's competitiveness (Brouthers et al., 2015; Jacobides et al., 2018; Stallkamp & Schotter, 2019). To understand if and how platforms do that is a relevant concern for managers and researchers. Hence, the first sub-question asks:

Q1.a) How do platforms leverage on partnerships to foster local competitiveness?

Ecosystems, and the networks of partners they include, can be imagined as a fractal-like structure: the bird's-eye view exposes large multi-national ecosystems, which upon closer inspection reveal multiple national, regional, and local ecosystems within. The geographic spread of each ecosystem works as its scale. Although this analogy may sound accurate, it is an oversimplification that might be incorrect. E.g., a local partner in an

ecosystem may not necessarily be a part of its larger multi-national ecosystem. Global partnerships may not always translate into local partnerships. And localized partnerships may develop into global partnerships. The second sub-question explores this matter:

Q1.b) How do local and cross-border partnerships relate to each other?

4. METHOD

The present chapter provides an overview of the methodology used to conduct the empirical part of this dissertation. It approaches, via case study, two international digital platforms which expanded in Portugal, to explore teaming-up in the internationalization of digital platforms. This chapter is divided into three sections. The first section expands on what case studies are, and why they were chosen as the research methodology. Next, the second section explains the rationale behind this study's selection of cases. The final section addresses the data collection and validation process.

4.1. Why case studies?

Case studies can be defined as "a research strategy which focuses on understanding the dynamics present within single settings" (Eisenhardt, 1989:534). They combine theoretical knowledge with empirical insights to expand on extant theories (Yin, 2018). In business studies, case studies can be used to expand on recent theory, a specific issue, or a management situation (Ghauri, 2002). They allow for an in-depth and close study of dynamic subjects and the collection of additional data at any time, from multiple different sources. They are commonly used in IB and allow for the study of complex phenomena, being appropriate to generate new theory, and to test and refine existing theory (Vissak 2010; Welch, Piekkari, Plakoyiannak & Paavilainen-Mäntymäki 2011). This method offers analytical, instead of statistical, generalizability (Welch et al., 2011; Yin, 2018).

Considering the research questions (RQs) posed in this work, the lack of control over behavioral events, and the recency of the subject being studied, the decision was made to develop explanatory case studies (Yin, 2018). Explanatory case studies can be used to "test propositions, adjudicate among rival explanations, revise existing theories and establish casual relationships; (…) they are suited for verification and not just discovery of new theory" (Welch et al., 2011:7), which is in line with this work's objectives.

Multiple case studies, and concepts derived from case studies, are mentioned and relied-upon throughout this work. Relevant examples include the seminal paper developed by Johanson & Vahlne on the Uppsala Internationalization Model (1977), Monaghan, Tippman, Coviello (2019)'s study on the internationalization process of born digitals, and Ojala, Evers, and Rialp's research on the extension of the international new venture phenomenon to digital platform providers (2018).

4.2. Case selection

A multiple-case study was chosen, to improve this work's analytical benefits and allow for more robust conclusions (Herriott & Firestone, 1983; Yin, 2018). Single-case studies may limit the potential for generalization of its developed theory and conclusions, and can sometimes culminate in a distorted and inaccurate view of reality (Dyer, Wilkins, & Eisenhardt, 1991; Eisenhardt & Graebner, 2007; Vissak, 2010). Considering the context of this work, its RQs, and the theory on which it builds upon (Ghauri, 2002), three conditions were defined for selecting the cases: (i) digital platform companies, (ii) with international spread, and (iii) an ecosystem established in Portugal.

The initial objective of this study was to explore its subject by studying three of the most successful platform companies in the world with ecosystems present in Portugal: *Microsoft*, *Amazon Web Services* and *Google*. *Microsoft* accepted to participate in this study. However, due to a lack of access to *Google*'s Portuguese representatives and *AWS*'s unavailability, the decision was made to approach this study via *theorical replication*, using a contrasting case (Yin, 2018). After contact was established by phone and an invitation was sent via e-mail, *Too Good to Go* accepted to participate.

4.3. Data collection

Collecting and analyzing data for a multiple-case study can be overwhelming. To strengthen the validity and ease the gathering and analysis process, the data used in this dissertation was collected following Yin's four principles (2018): i) multiple sources of evidence were used for data triangulation purposes, including public documentation and archival records, and semi-structured open interviews; ii) all data collected in this study was documented, organized and saved as a case study database; iii) a chain of evidence was established; and iv) although they were used parsimoniously, sources on social media were handled with caution and all the information was thoroughly double checked.

Public documentation and archival records were obtained online and on newspaper articles. Data ranged from official communications, to archived interviews and news, to recorded talks and presentations. These were used to corroborate and augment the evidence obtained in the interviews and to design a framework for supporting the questionnaire and each of the interviews. The questionnaire was adapted from Martins (2016) and Miranda (2018), and designed for semi-structured interviews with a mix of open and closed-ended questions (see Appendix A1), to allow for fluid conversation (Rubin & Rubin, 2011).

Interviews are commonly used in case studies (Ghauri, 2002; Yin, 2018), and are this study's main source of information. On behalf of each company, Paulo Silva, Technology Strategist at *Microsoft*, and Mariana Banazol, Head of Marketing at *Too Go To Go* were interviewed. Due to the global pandemic, these were conducted remotely and allowed the interviewees to freely express their thoughts about each given subject in the fashion of a guided conversation. They were conducted in Portuguese, during October 2020. Although the conversation flowed in a semi-structured fashion, both interviewees were very concise and precise with their answers, making each interview last approximately thirty-five minutes. The interviews were recorded with interviewee consent, to ease the transcription process and eliminate the possibility for inaccuracies due to poor recall. A summary table of the interviews and firms is presented in appendix A3.

4.4. Data validity

The data validity framework used by this study was adapted from Gibbert, Ruigrok, and Wicki (2008), Yin (2018), and Cook and Campbell (1979) and is presented below (see Table 2). It uses four design quality tests commonly used in social sciences, in order to improve its rigor and quality (Gibbert et al., 2008; Yin, 2018).

Case studies test their internal validity by seeking to establish causal relationships and perceive patterns, "by which certain conditions are believed to lead to other conditions, as distinguished from spurious relationships" (Yin, 2018:78). Identifying and defining the correct operational approach to the concepts being studied ensures the case's construct validity. To test its external validity, the study should show how and if its findings can be generalized. Finally, a case study's reliability relates to its potential replicability, assuring that its operational approach can be repeated, leading to the same results.

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Table II – Data validity framework.

Internal Validity	Construct Validity	External Validity	Reliability
• Research framework and methodology explicitly derived from literature. • Pattern matching technique used for case study analysis. • Theory triangulation assured by combining different bodies of literature and theoretical lenses.	• Data triangulation achieved by combining documentation, archival data, and interview data. • Review of the transcripts by key informants. • Complete review of the research by the supervisor. • Exposition of how the data was obtained (see the present chapter).	• Cross-case analysis assured by combining information from two different platform companies. • Explicit rationale for choosing case studies (see chapter 4.1). • Details given on the context of each case study (see chapter 5).	• Case study protocol (see Appendix A2). • Case study database (can be made available upon request). • Information on each organization's names and background is given (see chapter 5). • Explicit questionnaire (see Appendix A1).

Source: developed by the author, based on Gibbert, Ruigrok, and Wicki (2008), Yin (2018), and Cook and Campbell (1979).

5. CASE PRESENTATION

The empirical segment of this research requires a baseline of knowledge on the firms being studied. For that reason, the present chapter briefly introduces each of the platform companies studied in this dissertation, from the international to the Portuguese context. The first section focuses on *Microsoft*, and the second section on *Too Good To Go*.

5.1. Microsoft

Sometimes*,* great ideas are born in the most unassuming places. *Microsoft*, originally *Micro-soft*, was founded in 1975 by two friends, Paul Allen and Bill Gates, in a garage in Albuquerque, New Mexico. They started by developing software for an early personal computer, the *Altair 8800*. After five years, the duo struck a deal with *IBM* to provide the operating system for their first personal computer. In a savvy move, *Microsoft* specified IBM would not have exclusivity over its operating system, *MS-DOS*. This decision would later greatly benefit *Microsoft* and boost its growth: as competitors copied and improved upon *IBM*'s hardware, *Microsoft* was available to supply the software.

After that, *Microsoft* started a long climb to become one of today's biggest companies in the world. Much of its initial success was due to the release of *Windows*, in 1985, originally as a graphical interface for the *MS-DOS*. Shortly after, in February 1986, it moved to Redmond, Washington, were *Microsoft*'s headquarters (HQ) are located to this day. After one month, they went public, selling 2,5 million shares and raising $61 million in the first day. Five years later, *Microsoft Portugal* was born. The Portuguese media and

Government took notice and, in 1993, Aníbal Cavaco Silva, the Portuguese prime-minister, participated in *Windows NT*'s launch ceremony.

In 1995, *Microsoft* released the much-anticipated *Windows 95*. In Portugal, two thousand five hundred people watched the launch event, while customers lined up to buy the Portuguese version. Meanwhile *Microsoft Portugal* hosted its first partner-centered event, the *Reseller Conference*, and sponsored *Expo '98*. As its influence kept on growing, in 2006, it set a formal partnership with the Portuguese Government, agreeing to help with the implementation of its *Technology Plan for Education*.

Under Satya Nadella, from 2014 forward, *Microsoft* pushed for the diversification of its digital platform portfolio. Their offerings include social networks and video conferencing platforms, like *LinkedIn*, *Yammer,* and *Teams*, search engines, like *Bing*, to cloud computing services and collaborative platforms, like *Azure* and *Sharepoint*. The company appears committed to create lasting connections with its partners, aiming to create win-win relationships, fostered, and developed via the *Microsoft Partner Network*. As of 2017, for example, *Azure*'s partner network had over sixty thousand partners, communicating and sharing information globally, with *Microsoft* and among themselves.

Led by Paula Panarra, *Microsoft Portugal* celebrates thirty years in the country as of 2020. It currently employs over one-thousand persons, working in eight different business areas: Operating Systems; Devices; Applications and Services; Enterprise and Cloud; "Dynamics" Business Applications; Research and Development, Strategic Planning; Operations Management; Business Management and Technical Evangelism. It has become an established and influential brand in Portugal, in the private and public sectors.

5.2. Too Good To Go

As environmental and sustainability concerns permeate the discussion in contemporary society, solutions for tackling these challenges emerge all over the world. *Too Good To Go (TGTG)* was created in Copenhagen, in 2016, by Mette Lykke, with the mission of reducing food waste and contribute to the reduction of greenhouse gas emissions. On its website, the company states that about one third of the food produced is wasted (*Too Good To Go*, 2020a), in line with a report from the Food and Agriculture Organization of the United Nations on the Food Wastage Footprint (2013).

From a business perspective, *TGTG* establishes partnerships with shops and restaurants, enabling them to access the platform's user network to sell food surplus via the app, for a fraction of the price. In practice, it allows the company's partners to offer *Magic Boxes* in the app, i.e. a box with a unique assortment of food or ingredients, packed within a box, of unspecified quantity and variety, that would otherwise go to waste. The customer selects a partner via the app, makes his order and schedules a time frame to retrieve it. *TGTG*'s profits by taking a cut of each of those transactions.

One year after being founded, around early 2017, *TGTG* was already operating with offices in Denmark, Switzerland, France, Germany, Norway, Australia, and the United Kingdom. Operations were live in Sweden, Canada, and Austria, but without an office within the country. This international expansion is city-based. I.e., *TGTG* starts its operations in each country's main cities, and then spreads its service to rest of the country. Speaking to an audience on October 10, 2018, at the *Nordic Growth Hackers* event in Copenhagen, Lykke stated that *TGTG*'s country offices were independently managed (Lykke, 2018). This decision meant to address the challenge of getting both consumers and business on board with the platform, while carefully balancing supply and demand.

Information was not flowing between offices, and the company was losing focus and repeating the same mistakes in each country. This may have been due to its business model, since each country operated semi-independently, as partners, rather than as a single organization. Consequently, in 2018, the CEO shifted strategies, closing operations in Australia, and the three other countries where *TGTG* had no offices. Since the firm had a considerable number of working partnerships in Switzerland, the office was closed but operations resumed, with customer support was handled in Germany and France. A year later, the company expanded to the Netherlands, Belgium, and Spain, and reopened its Swiss office. It changed its business model to unite all the independent offices in one organization, with exception of Norway, as an experiment, due to its remarkable independent growth. By the end of 2018, *TGTG*'s operations also included Italy.

In September 2019, a team was established in Portugal, under the leadership of Madalena Rugeroni, to prepare the operations for the launch, one month after. They had an initial group of fifty partners. By October 2020, their partner network expanded to one thousand five hundred business, with more than three hundred thousand users, and two hundred fifty thousand meals ordered. Meanwhile, the firm expanded its operations to

fourteen European countries, also arriving in New York, in October. The company's global website states that the platform has more than twenty-seven million users, almost fifty million meals 'saved', and six-hundred fifty employees.

6. CROSS-CASE ANALYSIS

The present chapter presents the evidence gathered from both cases. The first section contrasts both firms in the international context. Next, it approaches how local platform ecosystems are established and developed. Then, it centers on how platform companies leverage on partnerships to foster local competitiveness. Lastly, it focuses on how local and cross-border partnerships relate with each other.

6.1. Contrasting the cases

Too Good to Go (*TGTG*) and *Microsoft* approach ecosystems and partnerships differently. In the international context, looking at both as a whole, there are three key contrasting factors between these companies, that go beyond surface-level contrasts of their businesses. A summary table of these differences can be consulted in appendix A4.

Microsoft and *TGTG* differ in how their platforms work. All of *Microsoft*'s platforms are digital in nature, meaning that users can access their intended value unit over the internet, reducing the impact of national boundaries on their network effects and ecosystems. *TGTG*, on the other hand, requires *geographical proximity* between its users and partners supplying *Magic Boxes*. It is expected that this operational dependence on geographic proximity between users and partners influence the dynamics of network effects and their ecosystems, including how they overlap with an international ecosystem.

Evaluating the *maturity* for *ecosystem governance strategy* of a given platform firm goes beyond the intent of this study. Yet, it can be assumed that maturity stems from a firm's accumulated knowledge and explicit effort towards understanding and exploring a given subject, over time. *Microsoft* has had forty-five years to perfect their approach to ecosystem management. With offices in one-hundred twenty countries, and a certified partner program since 1992, *Microsoft* is expected to exemplify a more mature ecosystem governance strategy. Still, this perception does not imply real ecosystem governance maturity. E.g., *Microsoft*'s size, and the public relations concerns that come with it, the pressures of a very competitive international market, and economic power might also be considered forces pushing the firm into optimizing its approach to ecosystem governance.

As a younger firm, born in a different age and context, *TGTG* can be considered more *in tune with the current social, environmental, and ethical (SEE) context*. Greta Thunberg's international recognition, for example, illustrates how important issues like environmental damage and sustainability are for the younger generations. In this context, *TGTG* presents itself publicly as a solution for reducing food wastage and carbon dioxide emissions globally, stating its mission as "putting an end to food waste worldwide" (Lykke, 2017).

6.2. Case study findings

6.2.1. How are local platform ecosystems established and developed?

TGTG and *Microsoft* are in different phases of their ecosystems in Portugal. *Microsoft Portugal* has had thirty years to build a network of partners, clients, and other relationships with independent institutions, regulators, and the government itself. *TGTG Portugal*, on the other hand, is in the process of establishing its ecosystem, learning from and with the experience of its sister subsidiaries, particularly those in Southern Europe.

Partnerships play a central role in the Portuguese ecosystems of both companies. *Microsoft*'s partner ecosystem is considered a fundamental strategic asset. According to Paulo Silva (*Microsoft*), "*being a platform, we want to make the whole ecosystem richer (…) through our partners*" who bring innovation, maintenance, and implementation expertise to *Microsoft*'s customers. Likewise, Mariana Banazol (*TGTG*) states that partnerships are at the core of *TGTG*'s ecosystem. *TGTG*'s set operations one month prior to the official launch, focused on kick-starting their ecosystem by assembling an initial group of fifty partners. As Mariana puts it, *TGTG*'s partners include "*everyone, from big retailers, to producers, to the individual restaurants who save food through TGTG*", and to firms or institutions who help the platform to communicate its mission and reach new potential partners, like *Makro* and *ReFood*, in Portugal. Therefore, both companies make use of strategic-level partnerships, which help to promote and grow the ecosystem, and operational-level partnerships, e.g., those who supply the *Magic Boxes* at the core of *TGTG*'s business. Likewise, the two companies only set formal relationships, relying on written agreements, from terms and conditions to complex contracts. *Microsoft* goes further than this, by having a formal partnership program with minimal enrollment requirements, and an official network of partners, *Microsoft's Partner Network*.

TGTG's business development teams scout the country to find small businesses interested in becoming partners, to provide *Magic Boxes* in the platform. Deals with high-impact potential partners are managed by a team of key account managers (KAMs), organized by three different segments: hospitality, retail, and food chains. Because the platform is "*a brand with a strong mission, operating at a time where the trend is to talk about food waste*", "*everybody wants to be your partner*". Still, it is selective in making partnerships, only choosing those that *"make sense in the long run (...) [because] it is not our objective to have short-lived partnerships"*. Furthermore, *TGTG* leverages on strategic partnerships to develop its ecosystem. *ReFood*, an NGO also focused on reducing food waste, acted as its launching partner. *Makro*, a 'cash-and-carry' player in the B2B segment, is *"(...) a very relevant strategic partnerships for us (...)"* and "*an excellent opportunity to reach new partners in the restaurant business*", as stated by Madalena Rugeroni (Grande Consumo, 2020). *Makro*'s webpage presents partnering with *TGTG* as "*sustainability positioning*" and an opportunity to "*associate your brand to a sustainability trend that is growing nationally*" (Makro, 2020).   Regardless of the pandemic, *TGTG Portugal*'s "*expectations are corresponding to what we had initially hoped, (...) we are still successfully reaching many new partners and users.*"

For *Microsoft,* strategic partnerships can be set at the highest-level of the corporation, such as *Accenture* and *SAP,* and trickle down to each national subsidiary. Although partners at the operational level come in "*many different kinds*", all of them go through a "*recruitment*" process and must adhere to well defined certification metrics. After enrolling and successfully fulfilling all necessary criteria, they become partners, entering the *Microsoft Partner Network,* and being assigned a level, Member, Silver or Gold. Some of them can be considered complementors, implementing *Microsoft*'s solutions into their clients. Others act as third-party innovators, bringing innovation by developing and implementing add-ins and new tools that run on top of *Microsoft*'s platforms, creating "*more value in the way they are considered ISVs (independent software vendors)*". These operational-level partners can also stem from strategic partnerships. *Avanade*, for example, was created as a joint venture between *Accenture* and *Microsoft.*

Microsoft Portugal has teams working specifically on developing its ecosystem through partnerships, focusing on recruiting and developing relationships. With its certifications, and since *Microsoft*'s is widely recognized within the industry, it bestows

upon its partners the guarantee that they are credible and able to work with its technology. This gives these firms a relative competitive advantage in terms of market credibility, which motivating others to enroll in the recruitment process.

Responding to the first RQ, partnerships are central in the establishment and development of platform ecosystems, for both platforms. Partners are fundamental to enrich the ecosystem and help satisfy customer's needs. Platforms invest to reach and build long-lasting relationships with them. They can specialize and bring in new business opportunities, and communicate it to new customers, partners, and other ecosystem actors. Both companies approach partnerships formally and use the term partner as a catch-all term for a diverse group of firms performing different roles within the ecosystem. These can range from strategic to operational level partnerships. Finally, market credibility, in the case of *Microsoft,* and *TGTG*'s strategic attunement to the SEE context of the contemporary world, may encourage their own ecosystems' growth.

6.2.2. *How do platforms leverage on partnerships to foster local competitiveness?*

Microsoft and *TGTG* educate their partners on how to use the platform and the technology, to provide a better service for their customers. With this, they can improve their reputation in the platform, enabling them to reach more of its users, and potentially recruit new ones. The platform benefits because this strengthens its network effects. In other words, by empowering their partners, platforms empower themselves. Nevertheless, the way both firms approach educating their partners is different.

TGTG relays information to the individual businesses that supply *Magic Boxes*. The goal is not only to educate them and raise awareness but to improve their performance in the platform. As Mariana states "(…) *we communicate with them, send newsletters, and explain how they can optimize their offering: their presence in Too Good to Go, what is food waste, and why and how they can supply better Magic Boxes* (…) *this is not only a learning process for the user, but also to our partners*.". Small businesses are harder to motivate and engage with than the firms managed by the KAM team, with whom *TGTG* can develop deeper relationships and promote a better strategic alignment. Unfortunately. according to Mariana, the 2020 coronavirus pandemic has severely impacted *TGTG's* ability to promote events with its partners, particularly those engaged with the KAM team.

As it became more popular in Portugal, user groups appeared organically in social networks like *Facebook*, according to Mariana. There, users voluntarily share pictures and review *Magic Boxes*' contents. *TGTG* and its partners noticed this development and can interact with them if necessary. Partners who engage with customers and display a behavior that is well received can boost their brand and bring new users to the platform. In fact, partners may 'go viral'. In *Facebook*'s group *TooGoodToGo Portugal*, for instance, the restaurant *Arroz Doce*, from Torres Vedras, gained notoriety among the ten thousand members of the group. It achieved that by actively replying and providing nicely served *Magic Boxes* that got shared repeatedly and were well-received by the community.

Microsoft utilizes multiple strategies to educate its partners. Firms aiming to enroll in its partnership program must meet certification requirements. This is a means of endorsing partners and a source of profit since these examinations have a financial cost. It also promotes conferences, like *Microsoft Ignite*, an annual global conference for developers and IT professionals, where *Microsoft* technologies are presented, taught, and debated. It also aims to create synergies with and among its partners, to bring more value to their customers, which might be a sign of ecosystem governance maturity. For instance, it has teams dedicated to learning each partner's skills and specializations, to know which one to recur to, when needed. Then, *Microsoft* can orchestrate a solution and leverage partners from anywhere in the world. Furthermore, *Microsoft, "but also [other] large players in the technology sector, like AWS and Oracle* (…) *have a marketplace concept"*. These platforms, like *Microsoft*'s *Azure Marketplace,* are a tool for fostering synergies and showcasing partners' solutions. It can leverage the innovative potential of their global partner network. *Azure Marketplace* can be considered an example of the 'plataformization' of partner knowledge and innovation. Beyond the scope of this question, this shows that *Microsoft* can leverage its international and local partners to foster not only local competition, but international competition.

Microsoft fosters cooperation and competition between partners, potentially increasing their innovative potential. *Microsoft Inspire*, an international partner-focused event, is an example that can be envisaged as a mechanism to encourage this. There, the local and international partners who had the biggest impact on *Microsoft*'s business are awarded. Cooperation is also encouraged by, for example, involving multiple partners to devise complex solutions to specific business needs. Paulo states that after partners create

relationships with one another they can organize themselves in a go-to-market logic to deploy newly integrated solutions to their customers, on top of *Microsoft*'s platforms.

In response to the RQ 1.a), platform firms boost their local competitiveness through their partners in multiple ways. They educate them on how to use the platform, so that they can provide better solutions to their customers. Partners themselves can gain notoriety in the user network and ecosystem and self-organize in a go-to-market logic to find new opportunities. It is possible for some platform firms, at least those less location-bound, to leverage on knowledge and innovation of international ecosystem partners and apply them to local business solutions. Finally, platform firms can foster cooperative and competitive behaviors among partners to make local ecosystems more dynamic.

6.2.3. How do local and cross-border partnerships relate to each other?

International partnerships do not translate directly into local partnerships for *TGTG*. Even though *Unilever* and *Makro* are their strongest formal partnerships, "*each country [office] has to reach them individually*". It helps, nonetheless, when there are partnerships already established abroad. The business model of *TGTG*'s partners can also impact this process. *Intermarché*, an international retailer, established a partnership with *TGTG* in France. According to Mariana, since *Intermarché* is organized as a franchise, the relationship in France does not translate directly into Portugal. The approach must be made "door to door". *TGTG*'s country offices share contacts and help each other in attempting to transform local into multi-national partnerships. *TGTG UK*, for example, wanted to engage with *Makro UK*. They reached *TGTG Portugal* for a contact, to make a proposal. What they realized, however, is that *Makro UK* operates under a different company in that country, which made the approach difficult.

In contrast, *Microsoft Portugal*'s local and international partner networks are overlapped to a large extent. First, strategic partnerships set by the corporation trickle down to each country. As soon as *Avanade* opened its offices in Portugal, for example, they immediately started working with *Microsoft*. Second, *Microsoft* can leverage local and international partnerships to provide local business solutions. In events like *Microsoft Inspire* and through platforms like *Azure Marketplace*, *Microsoft* can shine a light on local innovations and services and propel them into the international market. In other words, *Microsoft* may be able to cross-fertilize local, national, and regional partnerships

in a global stage. As explained by Paulo, *Microsoft*'s international promotion of local partners internationally can sometimes help them find business abroad.

Answering the last question, the extent to which local and cross-border platform partnerships overlap is variable. *Microsoft*'s case shows that the relationship between local and international partners is dynamic. Local partners can be propelled into the international stage. Likewise, international partners generally become local partners once they start operating in that country. The fact that *TGTG*'s platform requires physical interaction to deliver the value unit to its customers, while *Microsoft*'s platforms do not, may explain to this difference. However, this can also be related to other factors, such as market reputation, company size and ecosystem governance maturity.

7. CASE DISCUSSION

This study aims to understand what the role of partnerships in the internationalization of digital platforms is. Drawing from the empirical research presented above, it discusses its findings at the light of extant literature. Platform companies differ greatly among themselves, as evidenced by the cases studied and previous examples. But beyond the surface level contrasts, there are points in common that may apply to other platform firms.

Partnerships are central to establishing and developing platform ecosystems in foreign markets. *Microsoft* and *TGTG* operate by orchestrating multiple co-specialized ecosystem partners, which is in line with Boudreau (2017). They provide services to the platform's customers, and can enrich the whole ecosystem and help develop it (Cusumano et al., 2019; Parker et al., 2018). Both firms aim to create long lasting 'win-win' relationships, described by Johanson & Vahlne (2009) as 'reciprocal commitment'. Yet, this does not imply an even balance of power. E.g., the partner is expected to be more dependent on *Microsoft* than the other way around. To develop their partner network, these firms also display a mixture of opportunity-seeking behavior, or 'active networking', and 'reactive networking', when potential partners take the initiative and come to them seeking for a service (Johanson and Vahlne, 2009). Platforms encourage the latter. *Microsoft*, for example, can bestow its market credibility on partners, giving them a market advantage. *TGTG* presents itself to partners as an opportunity to 'make your surplus profitable, attract new clients and being more sustainable' (Too Good To Go, 2020b).

The definition of partners is nuanced for these firms (see figure 2), a topic which is not explored in the current literature. The notion of partner is used as a catch-all term for different levels of strategic to operational-level relationships. Partners include firms that could be considered suppliers, complementors or third-party innovators (Cusumano et al., 2019; Katz and Shapiro, 1994). Both platforms recognize this and approach them differently, but always in formal fashion. Strategic-level partnerships are established at the highest levels of the company, and operational-level partnerships are recruited by specialized teams solely centered in discovering and developing these relationships.
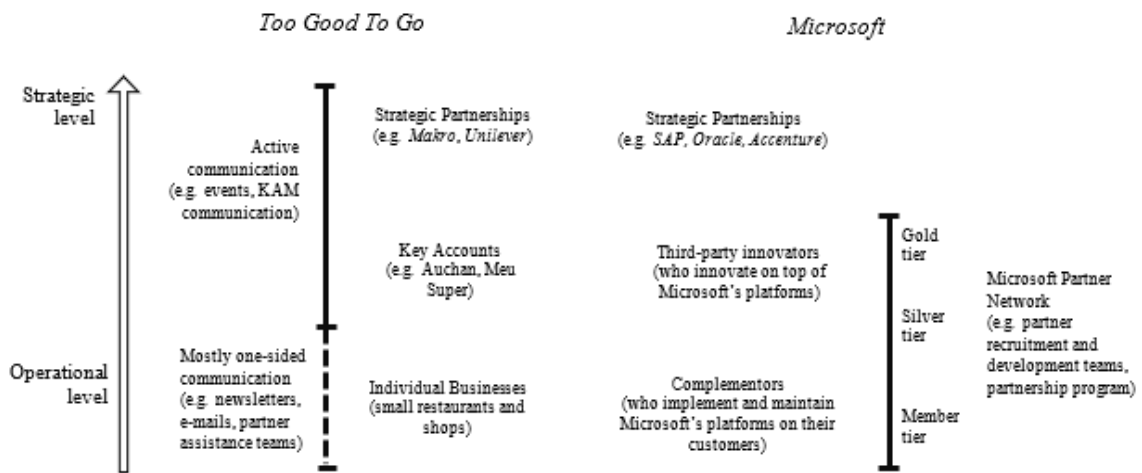
Source: Developed by the author.

Figure 2 - The nature of platform partnerships in the studied cases.

In both cases, platforms are affected by national and local boundaries, as well as LoO and LoF, corroborating Brouthers, Dung and Rothlauf (2015). *TGTG*'s case reinforces the notion that when platform-based transactions are tied to physical components, users and, in this case, partners, need to be geographically close-by, as suggested by Miranda and Simões (2019). Moreover, this case partly contradicts Stallkamp and Schotter (2019)'s implications for international strategies of platform firms (see Appendix A5). The firm with mostly within-country network effects, *TGTG*, preferred independent entry to acquisitions or alliances. Its expansion, although fast, is incremental and prioritizes countries with stronger economic, cultural, and social connections to the home country. They first launch in the bigger cities, and then expand to the rest of the country, corroborating Miranda and Simões (2019). Still, *TGTG*'s experience is in accordance with Stallkamp and Schotter (2019) on the adoption of multidomestic strategies instead of global strategies. That can be illustrated by the fact that *TGTG*'s international partnerships have to be renegotiated on a local basis. This may have been inherited from

TGTG's initial strategy of having each country office operate independently. Its case also corroborates the notion that foreign market exit is likely since it happened just one year after its inception, with Australia, Sweden, Canada, and Austria. In what was possible to observe, *Microsoft*'s example is in line with these author's implications regarding the adoption of global strategies and the likeliness of market exit.

Mariana states that there were cultural barriers to overcome, such as the excessive bureaucracy of the Portuguese business context (Simões, 2019). Both interviewees mention novel factors which may influence the diffusion of their platform ecosystems and go mostly unmentioned in current literature. *TGTG* attributes some of its successful user and ecosystem diffusion to how its strategy resonates with social, environmental and ethical (SEE) concerns of modern society. In parallel, firms see *Microsoft*'s partnership program as an opportunity to tap into its market influence and enable new market opportunities, motivating them enroll in the program. Therefore, a platform's perceived market credibility and strategic attunement with contemporary SEE trends may influence the diffusion of platform ecosystems. This is a field in which further research is needed.

Both firms endow their partners with tools and knowledge that facilitate their function within the ecosystem, and enable them to develop tools and innovations to be used in the platform, corroborating Cusumano, Gawer and Yoffie (2019). With this, they aim to provide better solutions to their customers, which may increase their perception of quality. This, according to the literature, makes them more likely to penetrate target countries (Chen et al., 2019) . *TGTG* educates its partners on what food waste is, and how they can improve their sales performance. Proactive partners can also gain traction within the user-curated discussion groups, and occasionally bring new users to the platform. *Microsoft*'s example also reinforces this idea since its partnership program doubles as a mechanism to orchestrate partners and a means of enforcing a baseline for only admitting into the selection process partners with in-depth knowledge on *Microsoft*'s technologies.

Due to its ability to overlap and leverage on international and local partnerships, *Microsoft* is able to develop trans-specific understanding (TSU) (Lew et al., 2016). That is, the ability to access and combine knowledge from different partners, spread globally, and with different specializations, despite cultural differences. *Microsoft* employs teams with knowledge on each partner's strengths and specializations to boost this capacity and improve its competitiveness, by allowing it to provide complete solutions to their clients'

business necessities. Local *Microsoft* partners can be highlighted and propelled to the international market. *Marketplaces*, like *Azure Marketplace*, are platform tools used to showcase and tap into the knowledge and innovation emerging from all over the world. As stated, the platform firm also fosters cooperation and competition among partners (Alcácer et al., 2016; Parker et al., 2016). These mechanisms give *Microsoft* the ability to employ skills, knowledge, and innovation, that they would struggle to develop alone (Cusumano et al., 2019; Parker et al., 2018). These behaviors may be perceived as mature, or advanced, strategies for ecosystem governance. The fact that *Microsoft*'s platforms are mainly digital in nature may help mitigate the effect of national and local boundaries on its business, as suggested by Parente et al. (2018) and Stallkamp and Schotter (2019). This contrast in relation to *TGTG* may not only be related to the platform's type (Cusumano et al., 2019), but also to its perceived relative ecosystem governance maturity.

Finally, akin to what has been suggested relative to user networks (Parker et al., 2016), both platforms seem to operate under the assumption that a virtuous cycle can be achieved in a platform ecosystem. That is, platforms empower their partners' business, helping to boost their market performance and deliver better quality to its customers. This may develop their relationship further as new business opportunities appear, due to the perceived increase in quality. These partners bring new opportunities to the platform, empowering it in the cycle, which begins anew.

8. CONCLUSION

This chapter provides a conclusion to the study, starting with its key findings, then by its theoretical and managerial implications, and finally presenting its limitations and future research avenues.

8.1. Key findings

This work addresses the role of partnerships in the internationalization of digital platforms. To do that, this dissertation draws from a literature review on the platform business model and the internationalization process of platform firms to formulate an overarching research question: How are local platform ecosystems established and developed? To respond to it, a case study was developed on *Microsoft* and *Too Good To Go.* This study compares these companies' experience and knowledge to understand when their actions and rationales differ, and when they behave similarly.

This analysis of the cases identified key points in common and differences in the international management strategy of two deeply contrasting platform firms. Partnerships are crucial for establishing and the develop platform ecosystems. Platforms know this and invest to reach new partners and build long-lasting 'win-win' relationships. They can specialize and create new business opportunities, and help communicating the platform to new potential customers, partners, and other ecosystem actors. Both companies approach partnerships formally. The term partner itself is more complex than it seems, including relationships ranging from the strategic to the operational level, in hierarchical fashion. Finally, *Microsoft's* market credibility and *TGTG*'s strategic attunement to the SEE context of the contemporary world, may encourage their ecosystems' growth.

Platform firms foster their local competitiveness through partnerships. Both educate their partners on how to use the platform, so that they can provide better solutions to their customers and make the local ecosystem more dynamic. Partners can gain notoriety in the user network and the ecosystem and organize independently to find new market opportunities. Some platform firms can leverage knowledge and innovation stemming from international ecosystem partners and apply them to local business needs. Finally, the extent to which local and cross-border platform partnerships overlap is variable. Platforms can develop mechanisms that allow for local partnerships to be accessed internationally, and international partnerships to be leveraged locally. Finally, through the platform or with its help, local partners can be launched into foreign markets.

8.2. Theoretical implications

Platform internationalization is not easy nor simple. Multiple localized ecosystems must be established and developed, and partnerships are crucial for that. The definition of platform partnerships is a complex concept that includes firms performing different roles. In fact, platform create and set different agreements for each type of partnership they want to establish. Novel factors such as market credibility and strategic attunement to the SEE context may have a positive influence on platform diffusion in user networks and ecosystems. Platforms with location-bound FSAs can internationalize incrementally and enter independently in foreign markets with close connections to their home country. Akin to user networks, platforms seem to operate on the underlying assumption that a virtuous cycle can be achieved in a platform ecosystem, by empowering their partners.

8.3. Managerial implications

Managers should consider partnerships important for platform internationalization strategy. Empowering and educating partners makes the ecosystem grow, adapt and evolve. Partners can play very different roles in the ecosystem, and different approaches should be defined for each of those. When establishing ecosystems, managers should consider if the international partnerships present in the locale do translate into local partnerships. If not, it may force local offices to duplicate contact efforts that were already done in other markets. Some platforms can devise mechanisms, like partner-centered marketplaces, that can allow them to leverage on international partnerships to boost local competitiveness. Voluntarily moderated user groups can emerge organically around a platform and nurturing them can be an opportunity for both partners and platform firms. Finally, aligning platform strategy to relevant social/ethical concerns of the contemporary context may be an opportunity to boost its diffusion while contributing to society.

8.4. Limitations and future research

This study has some limitations. Time and access constraints forced changes in the plan of studying *Microsoft*, *Amazon Web Services* and *Google*. Likewise, none of these platform's partners could be interviewed to provide another perspective to its content. Furthermore, both interviewees are based in Portugal, and may not be knowledgeable enough about the decisions being made at the highest level of their firms, regarding international strategy and behavior. Lastly, it is relevant to disclaim that this study focused on partnerships themselves and their role in the establishment and development of localized ecosystems, rather than in the possible anti-competitive uses of teaming-up.

Future studies could further expand on the role of platform partnerships in platform internationalization. Understanding, for example when a partnership-centered approach may be preferable to platform envelopment, or even an in-house development strategy. Likewise, exploring the complex nature of partnerships, and their roles in the ecosystem, and the different ways platforms establish partnerships with them, could bring new insights to the field. Finally, the influence of novel factors such as ecosystem governance maturity and strategic attunement to the SEE context on platform diffusion may contribute to the understanding of why some platforms diffuse faster than others.

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APPENDICES

A1. Interview guideline

The following questionnaire was adapted from Martins (2018) and Miranda (2019). All questions were asked on a case-by-case basis, considering the background research conducted prior to interview, and each interviewee and his role within the company.

1. *Introductory questions*
    a. When and where was your company founded?
    b. How would you describe what your company does?
    c. What is the main value driver for your company?
    d. Had you already planned for international expansion when you first started?
        i. If not, how did you end up deciding to internationalize? (Did you identify potential partners, clients, market opportunities to explore?)
    e. What were the main challenges in coming to Portugal?
        i. Why did you choose to expand to this geographic region (Portugal, if applicable), in particular?
        ii. What do you feel was the main gateway into this market?
    f. When drawing your strategy, did you scan for potential local partnerships?
        i. Did you scan for international partners with local presence?

2. *Questions on partnerships and their role in the ecosystem*
    a. In your perspective, what distinguishes being a partner from other types of firm relationships? (e.g. suppliers, clients, regulators)
        i. How important do you feel they are for your business?
        ii. What is the nature of the partnerships you establish? (I.e. formal, informal, both)
        iii. Do you actively scan for potential local partners?
    g. Does your company have international partners?
        i. Do those relationships translate into local partnerships?
    b. How to you develop a relationship with local partners?
        i. Do you promote knowledge-sharing initiatives? (E.g. technical knowledge, market knowledge, networking knowledge)
        ii. Do you foster co-creation initiatives? (E.g. Workshops)

      iii.   Do you foster co-opetition initiatives? (E.g. Hackathons)

   c. How do you take advantage on your relationship with local partners?

      i.   Do your partners help you find local business opportunities?

   d. How do you take advantage on your international partnerships?

      i.   Can a local partner become an international partner?

   e. Do you have any partnerships with other platform companies?

      i.   How do you take advantage on those partnerships?

3. *Questions on establishing and developing an ecosystem*

   a. Why did you choose to expand to this geographic region (Portugal, if applicable), in particular?

      i.   How do you choose the locals to expand to?

   b. How did you first establish a local ecosystem?

      ii.   How was the process of engaging with local firms?

         a. How did those relationships develop over time?

         b. Did you follow any examples from other countries?

   c. How important was your international reputation to kick start your ecosystem?

      i.   How important is your international reputation to help you develop your ecosystem?

   d. How do you coordinate the development of your ecosystem?

      i.   How do you orchestrate your ecosystem?

      ii.   How do you develop your ecosystem?

A2. Case description

Table III - Case description: interviewee characteristics.

Interviewee characteristics	*Microsoft*	*Too Good To Go*
Name	Paulo Silva	Mariana Banazol
Functions	Account Technology Strategist	Head of Marketing
Interview duration	35 minutes	32 minutes
Nationality	Portugal	Portugal

Source: developed by the author, adapted from Martins (2016).

Table IV - Case description: company characteristics.

Company characteristics	*Microsoft*	*Too Good To Go*
Main industry	IT	Food
Inception year	1975	2016
Country of Origin	USA	Denmark
Number of markets	120	15
Company size	> 166.000 employees	> 650 employees

Source: developed by the author, adapted from Martins (2016).

A3. Case study protocol

Table V - Case study protocol.

Section A. Overview

Purpose and setting of the study	This study is a master's dissertation in the field of Economics and Management of Science, Technology, and Innovation, under the supervision of Professor Vítor Corado Simões. It was developed in Lisbon, Portugal, in 2020, to be presented at ISEG – Lisbon School of Economics and Management, Universidade de Lisboa.
Theoretical framework for the study	See chapter 2.
Key readings	Brouthers et al., 2015; Chen et al., 2019; Cusumano et al., 2019; Eisenhardt, 1989; Evans & Schmalensee, 2016; Jacobides et al., 2018; Johanson & Vahlne, 1977; Li et al., 2019; Ojala et al., 2018; Parker et al., 2016; Rochet & Tirole, 2006; Simões, 2018, 2019; Stallkamp & Schotter, 2019; Yin, 1994
Case study questions	See chapter 3.

Section B. Methodology and data collection procedures

Choice of methodology	See chapter 4.1.
Case selection	See chapter 4.2.
Data collection	See chapter 4.3.
Expected preparation prior to fieldwork and recommendations	Extensive background research is advised before contacting and interviewing any subject. The researcher should also reserve himself a temporal window of opportunity, comfortable enough to allow for schedule flexibility to cater to the interviewee's agenda. Multiple communication channels should be attempted. Prepare for unanticipated events from both external and internal factors.

Source: developed by the author, based on Yin (2018).

A4. Contrasting the cases in the international context

Table VI - Contrasting the cases in the international context.

	Microsoft	**Too Good To Go**
Country of Origin	USA	Denmark
Year of foundation	1975	2016
Current mission statement	To empower every person and every organization on the planet to achieve more	Putting an end to food waste worldwide
Company size	> 166.000 employees	> 650 employees
Country reach	120	15
Industries	IT	Food
Number of active platforms in the company's portfolio	~ 11[1]	1
Relative platform operational dependency on locale	Low	High
Relative perceived ecosystem governance maturity	High	Low
Relative perceived strategic attunement to social, environmental, and ethical trends	Low	High

Source: developed by the author.

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[1] Including: *Windows Apps, Microsoft (MS) OneDrive, Skype, MS Teams, OneNote, Azure, Bing, Flow, Sharepoint, Xbox Live* and *LinkedIn*.

A5. International strategy implications

	Within-country network effects only (direct and/or indirect)	**Cross-country network effects only (direct and/or indirect)**
Entry Mode	Preference for acquisitions and alliances	Preference for independent entry
International strategic posture	Multidomestic strategies	Global strategies
Foreign market selection	—	Increased preference for culturally similar countries with strong economic/social connections to home country
Foreign market exit	More likely	Less likely

Source: developed by the author, adapted from Stallkamp & Schotter (2019).

Table VII - Summary of implications for international strategies of platform firms (Stallkamp & Schotter, 2019)

	Within-country network effects only (direct and/or indirect) *(Too Good To Go Portugal)*	**Cross-country network effects only (direct and/or indirect)** *(Microsoft Portugal)*
Entry Mode	Preference for independent entry	—
International strategic posture	Multidomestic strategies	Global strategies
Foreign market selection	Increased preference for culturally similar countries with strong economic/social connections to home country (Europe)	—
Foreign market exit	More likely	Less likely

Source: developed by the author, adapted from Stallkamp & Schotter (2019).

Table VIII - Contrasting implications considering Stallkamp & Schotter (2019).