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DO NEGATIVE EXTERNALITIES AFFECT PLATFORM MEMBERSHIP CONDITIONS? THE IMPACT OF MORAL AND REGULATORY LEGITIMACY ON PLATFORM GOVERNANCE

Research Paper

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Abstract

When allowing third parties to join their platforms, platform owners run the risk of attracting harmful third-party complements. Existing literature considers that low-quality offerings negatively affect cross-side user satisfaction and attractiveness, ultimately harming the platform's reputation and stability. However, recent events show that negative externalities from third-party offerings can also motivate platform sponsors to adapt their membership conditions. Existing platform literature does not explain the underlying theoretical mechanisms. In this paper, we examine why platform sponsors adjust the conditions that govern third parties joining their platforms in response to negative externalities. We apply legitimacy theory to a critical case on a payment transaction platform. We find that negative externalities affect both moral and regulatory legitimacy, which in turn motivate the platform sponsor to adjust the conditions under which third parties may join the platform.

Keywords: digital platforms, platform openness, platform governance, legitimacy, negative externalities, ecosystem membership.

1 Introduction

For any platform business, it is critical to set the conditions under which third parties are allowed to join the platform (Broekhuizen et al., 2019; Tilson et al., 2010; Wareham et al., 2014). On the one hand, allowing third parties to join makes platforms more attractive (Eisenmann et al., 2006) as they attract a wider variety of complementary offerings (Boudreau, 2010). If platforms are open, they generally have a higher market potential (Rysman, 2009) and a greater ability to attain critical mass (Ondrus et al., 2015). On the other hand, open platforms run the risk of attracting third parties that free-ride on the platform's reputation while providing undesirable offerings (Cennamo and Santaló, 2019). Such undesirable offerings may lack quality, thereby reducing user satisfaction (Cennamo and Santaló, 2019) and platform attractiveness (Wessel et al., 2017). Ultimately, low-quality offerings harm the platform's reputation (Wareham et al., 2014), or even the platform's integrity and stability (Wessel et al., 2017).

Extant literature focuses on factors of user experience (Cennamo and Santaló, 2019) and reputation (Wareham et al., 2014) to explain why platform providers change membership conditions. Profitability is also a motivation, as low-quality offerings may cause prices on a platform to drop, especially if these offerings overcrowd a platform (Wessel et al., 2017). Yet, we argue that there are cases where platform sponsors adjust openness, even though these established drivers are absent. For example, ridesharing platforms such as Uber and Lyft increased screenings of new drivers and added reporting functionality in response to reports of sexual assault and dangerous driving (Garcia and O'Brien, 2019). These platforms restricted the conditions for platform membership, even though prices and profitability were not threatened. Moreover, mature platforms also willingly allow low-quality offerings. Amazon, for example, allowed more sellers onto their marketplace, and as a result thousands of unsafe and low-

quality products were released (Berzon et al., 2019). Thus, low-quality complements or malicious actors may drive a platform owner to reduce openness, but not necessarily in all cases.

Most scholars argue that openness predominantly has positive externalities rather than negative ones (Gawer and Srnicek, 2021). Recent literature primarily considers *what* some of these negative externalities are, but this literature does not consider *why* these may motivate a platform to adjust their openness (See Cennamo and Santaló, 2019; Wareham et al., 2014; Wessel et al., 2017). As such, current literature does not provide a theoretical explanation of why negative externalities motivate platform sponsors to adjust their ecosystem membership conditions (i.e. platform openness).

This study aims to provide a theoretical understanding of why platform sponsors may adjust their platform governance due to negative externalities as a result of platform openness. We draw upon legitimacy theory as a general framework that explains why businesses act in response to societal implications (Suchman, 1995a). We conduct a case study on a digital platform sponsor in the payment industry, using pattern matching as an analytical approach (Yin, 2018). We focus on transaction platforms that facilitate 'the buying and selling of existing goods and services or [...] other interactions' (Gawer, 2020, p. 7). Following Eisenmann et al. (2009), we define platform sponsors as the owners that have architectural control over the platform and can thus set the conditions under which third parties can join the platform. We define indirect negative externalities as the negative utility arising from actions in a network (Katz and Shapiro, 1994). In this paper actions refer to activities from a platform sponsor to adjust their membership conditions (i.e. openness).

The paper contributes to platform governance literature by explaining why platform providers adjust the conditions and rules under which third parties may join their platforms. We go beyond the existing discourse that focuses on the direct impact of platform openness on the attractiveness for and satisfaction of cross-side users (e.g. Cennamo and Santaló, 2019). While the idea that platform governance dynamically changes over time is well established (Broekhuizen et al., 2019; Gawer, 2014), empirical accounts typically cover the case of platforms becoming more open, either gradually (e.g. Staykova and Damsgaard, 2015) or abruptly (e.g. Wessel et al., 2017).

2 Theory

2.1 Platform governance

For transaction platforms, an important issue is deciding which sellers can access the platform, as well as what sellers are allowed to do on it (Cusumano, Gawer and Yoffie (2019). Scholars use various terms to address these questions: platform openness (e.g. Wessel et al 2017), platform governance (Wareham et al., 2014), platform control (Goldbach et al 2014), platform curation (Cusumano et al., (2019) and (ecosystem) partner selection (e.g., Adner, 2017; Jacobides et al., 2018). In this paper, we focus on the conditions under which third parties can join a transaction platform. Typically, this entails the conditions imposed on sellers to be able to offer their goods to consumers of their offerings. However, it may also include other actors in the ecosystem.

Early studies on transaction platforms typically assume that third-party participation on platforms accelerates platform growth. Allowing third parties to join a platform results in consumer adoption growing, which in turn makes the platform more attractive to third parties (Venkatraman and Lee, 2004). By allowing third parties to join a transaction platform, platforms attract many complementors (van Angeren et al., 2016) with more diverse complements (Tiwana, 2014). In this way, platforms that allow more third parties to join can become more attractive to adopters (Gebregiorgis and Altmann, 2015) and end-users (West, 2003), which in turn increases their market potential (Ondrus et al., 2015). On top of this, relaxing control over third parties improves their intrinsic and extrinsic motivations to contribute (Goldbach et al., 2014; Schaarschmidt et al., 2019). Studies do suggest limits to the positive effects of allowing third parties to join a platform. Third parties may leave a platform when they face increasing

competition from other third parties (Boudreau 2010) or increased coordination costs (Choia et al., 2017).

Allowing third parties to join a platform can have negative implications for the platform sponsor and the cross-side users that consume the third-party offerings. Platform sponsors risk their platform being embedded in a higher-order platform by competing actors (Ghazawneh and Henfridsson, 2013; Karhu et al., 2018; Pon et al., 2014) or their identity being challenged (Lindgren et al., 2015). Consequently, a platform sponsor may restrict third-party access to the platform (Gawer, 2014). For cross-side users that consume the third-party offerings, allowing more third parties to join creates the risk that offerings might be of lower quality (Wareham et al., 2012). Third parties may be tempted to free-ride on the collective reputation of the platform and start to offer low-quality complements that reduce user satisfaction (Cennamo & Santalo 2019). Ultimately, reduced user satisfaction may trigger instability and collapse of the platform ecosystem (Wessel et al 2017).

2.2 Legitimacy theory

To build our explanations of why negative externalities make a platform adjust their platform governance, we use legitimacy theory. According to Suchman (1995), organizations change their behaviour to regain, maintain or increase legitimacy. The theory posits that if organisations deviate from what is socially desirable in ways that outsiders can observe, the organisation has an incentive to change its behaviour. Suchman (1995, p. 574) defines legitimacy as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions”. We argue it is exactly this type of mechanism that might explain why some platforms set stricter controls for ecosystem membership than others. More specifically, legitimacy concepts might explain why organization change ecosystem membership conditions due to a generalized perception of doing what is considered desirable by outsiders.

Moral legitimacy refers to the normative dimension of legitimacy. Moral legitimacy is gained by the extent to which an entity adheres to moral values and ethical principles (Scott, 2001). Across different fields such as sociology and institutionalism, moral legitimacy is recognised as a primary determinant of legitimacy (Scott, 2001; Tost, 2011). Moral legitimacy can be damaged via "criticism or negative assessment by opinion leaders, civil society organisations and key stakeholders" (Teixeira, 2009, p. 65). In a study on the legitimacy of the tuna fishing industry, Teixeira specifically studies print media such as newspapers as a measure that both reflects and influences public opinion. She finds that impending criticism or negative assessment by external actors can pose a threat to moral legitimacy.

Aldrich & Ruef (2006) provide a socio-political conceptualisation of legitimacy. Socio-political legitimacy is "the acceptance by key stakeholders, the general public opinion leaders and government officials of a new venture as appropriate and right" (Aldrich & Ruef, 2006, p. 198). They argue that, alongside moral legitimacy, regulatory legitimacy is relevant as well. Regulatory legitimacy refers to an organisation's "conformity with governmental rules and regulations" (Aldrich & Ruef, 2006, p. 186). Whereas moral legitimacy considers doing what is right on account of society's perceived values, beliefs and norms (i.e. doing what the public wants), regulatory legitimacy explains why companies act on account of regulatory pressures (i.e. doing what the authorities want). By considering regulatory legitimacy, a range of regulatory processes is captured that go beyond what is considered morally right or wrong (Aldrich and Ruef, 2006, p. 186).

In platform literature, most studies focus on legitimacy in terms of acceptance by users and stakeholders (Sharapov et al., 2013). From the earliest studies on platforms, scholars emphasize that platform providers need legitimacy to build an ecosystem (Iansiti and Levien, 2004), function as a platform leader (Cusumano and Gawer, 2002), and ultimately create value (Thomas and Autio, 2014). Many platform studies on legitimacy focus on market acceptance, especially for platforms that are disruptive (Ansari et al., 2016; Mukhopadhyay and Whalley, 2021) or new to the market (Autio and Thomas, 2016; Garud et al., 2022; Khanagha et al., 2020; Kwak et al., 2019; Uzunca et al., 2018). Others focus on identity-building of an emerging ecosystem (Gawer and Phillips, 2013; Thomas and Ritala, 2021). Addressing

legitimacy is found to be a necessary condition for a platform to thrive and survive (Ingram Bogusz et al., 2019; Tauscher and Rothe, 2021). In some cases, building legitimacy helps a platform to gain market acceptance, specifically by linking platform design to norms (Kwak et al., 2019).

A wide range of strategies to attain legitimacy is discussed in the literature. Governance, control and openness are discussed in a handful of studies only. Several studies discuss allying with reputable partners as a means to safeguard (Tauscher and Rothe, 2021) or attain legitimacy (Garud et al., 2022; Mukhopadhyay and Whalley, 2021). Similarly, allying with meta-platforms could provide legitimacy to a novel platform market (Zhang and Williamson, 2021). Others discuss governance-related strategies, such as relinquishing technical control over the platform architecture (Khanagha et al., 2020) or adopting decentralized governance and high openness levels (Singal, 2021). Another conceptual study links both legitimacy and openness to ecosystem viability, but does not discuss how legitimacy and openness are interrelated (Thomas and Autio, 2014). One specific study analyses how sharing economy platform providers apply governance mechanisms (e.g. banning taxi drivers) to address negative impacts on safety, harassment and quality (Uzunca et al., 2018). While several studies suggest that specific choices on governance and openness create legitimacy, one recent study suggests that platforms build legitimacy through a continuous process with many strategies (Garud et al., 2022). Suzor (2018) links legitimacy to platform governance in the form of terms of service, arguing that platform governance must represent the 'common good' to be legitimate (See also Allan, 2001).

Furthermore, legitimacy theory has been used in previous studies to link legitimacy crises to explain digital platform behaviour (See Casini, 2018). Furthermore, Stevens et al. (2016) also use legitimacy to explore how platforms are affected by a lack of legitimacy. Accordingly, research by Peng, Lui & Lu (2019) use legitimacy theory to explain platform communication during legitimacy crises.

Overall, existing studies link legitimacy to market acceptance and ultimate success. Of the few studies that relate legitimacy to openness and governance, most suggest that specific choices (e.g. more openness) leads to legitimacy. Two exceptions exist, which either relate legitimacy to externalities (Uzunca et al., 2018) or see legitimacy building through governance as a continuous process (Garud et al., 2022). Besides these studies, none of the existing studies relates negative externalities of open platforms to legitimacy concerns, which may in turn affect platform governance practices. Hence, in this paper we further argue for the purpose of using legitimacy theory to explain platform governance decisions and use it to explain case events in our analysis.

3 Propositions

In this section, we develop propositions to guide the case study (cf. Yin, 2018).

When third parties can transact on a platform, externalities affect a platform sponsor. Because platforms attract a wide range of third parties whose offerings cannot be fully anticipated, risks may emerge only after a platform is made accessible to third parties (Reuver et al., 2020). Especially in a digital context, increasing complexity might give rise to additional risks, which are difficult to foresee (Hanseth and Ciborra, 2007).

The concept of legitimacy helps to explain why specific risks trigger a change in the conditions under which third parties may access the platform. From legitimacy theory (Suchman, 1995), we take the notion that legitimacy is threatened or damaged when actors do not adhere to societal values to the extent that the outside world expects. Applying this notion to platforms, we suggest that the actions of third parties on transaction platforms can damage or threaten the legitimacy of the platform sponsor. Here, we consider the two elements of socio-political legitimacy as laid out in Section 2.2. Moral legitimacy is the extent to which an agent adheres to moral values (Scott 2001) and does this 'within cultural norms' (Aldrich & Ruef, 2006, p. 198). By considering cultural norms, moral legitimacy deviates from simply assessing whether something is wrong or right, as it acknowledges the cultural and normative acceptance of the organisation (Aldrich & Ruef 2006).

A threat or negative impact to moral legitimacy would arise where a company does not adhere to the same moral values held by society (Aldrich & Ruef 2006). The extent to which deviations threaten legitimacy depends on the difference between socially desirable and observed values. In other words, not every deviation threatens legitimacy in a way that triggers organisations to act, as the extent to which moral values are violated matters.

In the specific context of transaction platforms, a platform sponsor that does not seem to adhere to societal values may face threatened or damaged legitimacy. In our specific setting, we focus on risks that are created by third parties acting on a transaction platform. When threatened or damaged moral legitimacy is substantial, the platform sponsor may change its behaviour. Specifically, the platform sponsor may adjust the conditions for allowing third parties to conduct transactions on the platform. Hence, we propose that:

Proposition 1 – The observation of third-party risk in a platform ecosystem threatens or negatively affects the moral legitimacy of the platform sponsor, leading to adjusted conditions for third-party access to the platform

The second element of socio-political legitimacy is regulatory legitimacy, which complements moral legitimacy. Regulatory legitimacy entails compliance with relevant laws, regulations, rules, standards and expectations (Guo et al., 2014; Zimmerman and Zeitz, 2002). From the perspective of the organisation itself, regulatory legitimacy is achieved by compliance with applicable rules and regulations (Aldrich and Ruef, 2006). The threat of fines and other sanctions can incentivise an organisation to take negative externalities into account, for instance those relating to privacy and security.

In our specific context of third-party access to transaction platforms, regulatory legitimacy mainly relates to the extent to which third-party offerings comply with regulation. For instance, on transaction platforms, third parties may sell goods that are unsafe to the general public, or services that violate consumer privacy (Berzon et al., 2019). When threats to regulatory compliance emerge, either for the platform sponsor itself or the third-party offerings on the platform, platform sponsors may be triggered to act, by for instance forbidding the transactions of certain offerings. We propose that:

Proposition 2 – The observation of third-party risk in the platform ecosystem threatens or negatively affects the regulatory legitimacy of the platform sponsor, leading to adjusted conditions for third-party access to the platform

4 Methodology

A case study is appropriate for problems where not all variables at work are known (Yin, 2018). Our propositions guide our case study, as they tell us 'where to look' (Eisenhardt, 1989; Yin, 2018). Yet, as Vaughan (1992) notes looking too much at theory might prohibit seeing beyond the theory. We also use the propositions and the underlying theories to analytically generalise the findings of the case study (Yin, 2018). For this, we apply pattern matching: using theory to predict phenomena which are then compared to empirically-observed patterns, while trying to rule out rival explanations for the empirical observations (Yin, 2018).

4.1 Case selection

We chose a single case study in order to test our propositions (Yin, 2018). As our case we have selected PayNow, a digital platform sponsor based in the Netherlands. Since 2010, PayNow has been providing payment solutions that mediate between web shops and consumers. Since the platform mediates between two user groups with the help of digital technologies, it fits our definition of a digital platform. During informal talks with the IT manager of PayNow, we established that the case could serve as a critical case for two reasons. First, the platform applies a moderate level of conditions for third parties. Web shops can access the platform through APIs (Application Programming Interface) and plugins but do have to

pass a procedure before being approved. Consumers are allowed access to the platform upon passing a credit check. Second, the informal talks indicated that the company adjusted its conditions to web shops upon learning about ecosystem risks. Specifically, PayNow decided to stop serving particular web shops, as they sold products in a way that was unbecoming to the decision-makers. These two reasons lead to the hypothesis that the platform adjusted its membership conditions upon learning about risks.

4.2 Data collection

We followed the approach in Yin (2018) for formulating protocol questions as a general line of inquiry. We mainly relied on interviews as a data source. We used internal documentation as a background, to understand the context of events and interventions. Interviews were conducted via video calls to allow the researcher to pick-up on verbal and non-verbal cues.

We selected a diverse set of interviewees, being employees who (1) decided upon generic platform membership policies; (2) were in charge of admitting or rejected specific third parties; or (3) onboarded third parties that wished to join the platform. In this way, both strategic and operational decision makers were interviewed. We used these criteria loosely, to gather a wide range of perspectives and potential to rule out rival explanations. Interviewees were identified through talks with a key informant. Saturation was achieved when the interviewer stopped finding new aspects, events and opinions in interviews and available documents, while having talked to people with a variety of perspectives.

Eleven interviews were recorded (with informed consent) and transcribed. Transcripts were verified by interviewees. Recordings were removed after transcription. Interviews were semi-structured and adapted to the interviewee's expertise. Through the key informant, twelve internal documents were gathered as background information (Miles et al., 2014).

4.3 Data analysis

To analyse the data, we applied a pattern-matching strategy, which entails comparing an empirical pattern (i.e. findings) with a predicted pattern (Yin, 2018). Interviews and documents are analysed via coding, which allows pattern recognition and theory building (Saldaña, 2013). Documents were analysed first to gain a broad understanding of the case, upon which interviews were conducted.

Second, through pattern coding, pattern codes were defined that group a set of codes or categories to identify themes, explanations or configurations (Miles et al., 2014), which is suitable for finding rules, causes and explanations (Miles et al., 2014). Pattern codes were developed following the identification of rules (i.e. if-then relations) (Saldaña, 2013) and causal relations between codes. Relationships between codes were verified by re-reading quotations from codes and, when needed, re-reading transcripts. In total, six pattern codes were defined.

To record how and why codes were adapted, categorised and related, analytical memos were created that document and reflect on the coding process (Saldaña, 2013, p. 41). Through the coding cycles, we established constructs, processes, themes and relations between themes (Saldaña, 2013).

5 Findings

Within the space limitations of this paper, not all events that led to adjustments of platform membership conditions can be described in detail. Therefore, Section 5.1 provides a high-level overview of the main events uncovered in the case study, and which are analysed in Section 5. We elaborate one of the events in Section 5.2.

5.1 Overview of events

The events are listed below in chronological order. We refer to interviewees in parentheses (e.g. *IN3*).

Event 1: Return address policy. In the first years of PayNow's operations, some web shops adopted consumer-unfriendly practices. One example is using a return address in a far-away country. When PayNow received complaints from consumers, they adjusted their norms, now requiring that all web shops should hold a Dutch return address (IN10). The reason provided was that such return policies were not in line with the primary mission of PayNow, which was to protect consumers. From that point onward they only accepted new web shops that used Dutch return addresses.

Event 2: Dubious web shops that mislead consumers. Web shops selling nutritional supplements appeared to offer products that could be tried out free of charge. However, when consumers opened the products, they had to pay a subscription fee. The way PayNow handled this issue is elaborated on in Section 5.2.

Event 3: Data leakage. A consumer contacted the service desk about the possibility of data leakage. PayNow reported the data leakage to the authorities and fixed the issue (IN2). Although the legal officer believed the incident did not have to be reported, PayNow did so anyway. While the event did not result in any changes in platform governance, it could be suggested that the incident affected perceived legitimacy.

Event 4: Consumer fraud risk. Initially, PayNow ran a credit check on each consumer, based on specific integrity criteria. Consumers were only allowed access to the platform if they met the criteria. PayNow noticed that particular product types and price ranges affected the occurrence of fraud (IN4). Therefore, PayNow adjusted its credit check based on the mix of products and product value of a web shop (IN5; IN7), thereby adjusting the conditions under which consumers can use the platform.

Event 5: Privacy evaluation of providers. In order to manage the risk of consumer fraud, PayNow developed a fraud detection system. To validate consumers, PayNow utilised data from external parties. These external parties functioned as data banks in which organisations such as PayNow can validate a consumer. One of the 'fees' for contracting with the data bank is also updating this data bank with PayNow's customer data. Hence, the more organisations are connected to the data bank, the more users are validated and thus accepted. Hence, it would seem straightforward that PayNow would connect with more data banks. Nevertheless, PayNow decided to accept only parties (i.e. sellers) that safeguarded privacy (IN2). This decision led PayNow to utilise only a select few data providers for fraud detection systems due to privacy.

Event 6: Prohibiting smart shops. Smart shops sell, among other things, psychoactive substances. These shops are legal in the Netherlands if the shop adheres to strict rules. Yet, there is an extraordinarily thin line between what is legal and illegal. After identifying a smart shop selling illegal products, PayNow decided to take on no more smart shops because it would be 'impossible' to ensure that every order made via the platform is compliant (IN4; IN6; IN9). Consequently, PayNow changed their customer acceptance policy.

5.2 Illustration of Event 2: Ousting web shops that mislead consumers

To illustrate the analysis results, we go in-depth on one event. The event is selected as it contains threats to both forms of legitimacy (i.e. regulatory and moral). Codes and categories are referred to in italics.

5.2.1 Description of the event

In 2018, PayNow ousted several web shops due to their business methods. The web shops sold nutritional supplements, advertised as being 'free' to try. However, once consumers opened the sample packages, they were obliged to pay. This practice led to complaints directed at PayNow (IN1). Yet, interviewees pointed out that the web shops were not ousted because of complaints, but because PayNow's management considered the behaviour of those web shops morally reprehensible (IN1).

Complaints started to come in before 2018, right after the web shops entered the platform. The number of complaints was deemed disproportionate relative to other clients (IN5). Over time, the complaints

started to cluster noticeably around individual web shops (IN5; IN7; IN8; IN9). Besides, more customers were refusing to pay than for other web shops, which alerted employees to a looming risk:

"Why don't those consumers pay? Are they being lured by that web shop, or is it that the products are not good? Or is there more to it?" (IN1)

Consequently, PayNow approached the web shops multiple times and confronted them with their behaviour. Although the web shops maintained that legally all was correct, they reluctantly changed their web sites. However, soon after that, there were new complaints (IN7). As one interviewee said:

"They were treating symptoms, but never had the intention of actually changing their methods" (IN2).

In May 2018, the PayNow directors discussed the matter. One director found the practices morally reprehensible, while another director believed it not their responsibility. The directors asked the company lawyer to perform a due diligence/compliance investigation into some of the web shops. The lawyer found evidence of misleading consumers, which could have legal and reputational repercussions. Upon this, PayNow gave the dubious web shops the choice of complying or leaving the platform (IN1).

This decision led to internal debate: should our rules remain the same in the future? This is corroborated by a company presentation deck from that year that presented this decision as a strategic question: should PayNow continue to accept any web shop and risk similar problems, and in turn possibly lose the business and prospects of large and benevolent web shops (IN1, IN2, D3)? Ultimately, PayNow installed a stricter due diligence process for onboarding new web shops and introduced a compliance officer role, as becomes clear by comparing the versions of the due diligence process (D2). According to IN2, these decisions came after the dubious web shops tried to add many new labels (i.e. web shops/products) to the PayNow platform. Also, PayNow feared the additional 'hassle' of processing the complaints.

Soon after this, a national legal authority conducted a formal investigation on the dubious web shops. The authority found that PayNow had indeed ousted the web shops as soon as they learned that consumers were being misled. Yet, the authority also argued that companies like PayNow have a duty of care to safeguard consumers against unfair business practices.

This is corroborated by comparing the first version of the due diligence process before the investigation with that after the investigation (D2). This analysis showed that before the investigation, the due diligence evaluated whether the merchant complied with PayNow's terms of service, such as providing the correct information to consumers and establishing a purchase correctly.

5.2.2 Risks and legitimacy

Regarding *moral legitimacy*, PayNow received critique from consumers through reviews, complaint sites, emails and calls. PayNow even became a topic of discussion on a widely used public complaint forum. Moreover, employees argued that if PayNow wanted to garner a higher class of web shops, they should not be associated with bad parties (IN1; IN2). As the compliance officer noted to the directors:

"Please note that you have a reputation risk here by being associated with this party [...]" (IN1)

The *regulatory legitimacy* of the organisation was threatened, as a judge could rule any claims by PayNow invalid. Moreover, the claims made by the web shops were not in line with consumer right law (IN1). Yet, even though the organization chose to let go of the dubious web shops and instated a compliance officer and due diligence policy (see 5.2.1), no-one at PayNow foresaw the legal investigation at the time of banning the web shops from the platform.

As the following quote highlights, some interviewees already perceived an impact to legitimacy to have occurred. This is illustrated by the newly instated compliance role and the due diligence process.

"There were so many complaints on the Internet at one point, we really had to do something with that to get our reputation polished up again. And that was a very good argument, of course, in that whole decision to stop doing business with them." (IN2)

Finally, the *profitability* of the platform played a role in the decision-making. The reduced reputation of the platform could negatively impact future profitability (IN7). Furthermore, if sales were to be ruled illegal, they would also have a negative financial impact on the organisation. Yet, the dubious web shops had already been part of the platform for several years (IN9), and some interviewees argued that the web shops had brought in high-volume orders and a large part of the revenue in the early days of PayNow. Hence, they had contributed to profitability while hurting the moral and, unknowingly, the regulatory legitimacy of the organisation. Possibly, PayNow had needed web shops of this kind to grow, but no longer needed them in their financially secure position in 2018 (IN2). Seemingly, the growing *Organisational maturity* changed the trade-off between profits and moral legitimacy. Interviews pointed to several reasons to let the web shops go, including consumer criticism:

"I think [the complaints] certainly played a part in the decision. Because from all sides it was negative. Also from service desk customers. Half [of all the complaints] was just about the [dubious web shops]. And yes, then you just have to say that you shouldn't want to cooperate with this. Your customer service goes home depressed. And it is also not good for the consumer." (IN8)

According to this quote, criticism from internal stakeholders also played a role in the decision to let go of the web shops; in this instance, the customer service (IN8; IN9). Also, the complaints and disputes increased the workload of the customer service, legal and sales teams (*threat of workload*) (IN1). Outside stakeholders similarly provided critique. For instance, CollectPay was in direct contact with non-paying consumers and received many complaints (IN2). Moreover, PayNow got negative reviews, which could have led to consumers switching to competitors (*threat of competitor*) (IN5). The *threat of regulatory interference* was not always apparent in the interviews. However, one interviewee stated that legal concerns were investigated first, and only afterwards the morality was scrutinised (IN1).

Regardless, some employees did feel that it was not the duty of PayNow to 'police' web shops on how they did their business, besides adhering to laws and regulations.

"In the beginning, we were very much like: okay you know, you have a company, you just fall under Dutch law and regulations, if the Dutch law and regulator have not yet reprimanded you [the web shops], who are we to do that? [...] That was the approach for a long time." (IN2)

Some resistance was attributed to specific departments or individuals. For instance, even in 2018, the sales department maintained that their job was not to care if web shops acted legally (*receptivity of feedback*). Finally, existing routines and processes hindered adaptations. As partner InsureYou changed its conditions, PayNow suddenly had to handle acceptance of web shops on its own (IN2).

In PayNow's initial years, it had a broad acceptance policy. As one interviewee put it, they would accept any web shop that was doing legal business. Still, another interviewee said that parties were sometimes rejected if *common sense* suggested that their business was 'wrong' (IN2). Sometimes, PayNow found out only later that parties had acted in a malevolent way towards consumers. In the case of the dubious web shops, this resulted in PayNow adjusting their policies into no longer accepting all parties that were deemed legally acceptable. A change in moral perspective is apparent from this quote:

"Anyway, it was more of an ethical issue. A web shop like this [...] is not the way you should do business. And if we are like: you as a web shop do not do business the way we would, that we would find responsible. Yes, why should we want to do business with you?" (IN2)

The statement above underlines that, while PayNow found it not to be their responsibility to tell others how to run their business, this eventually changed. This may denote a change in platform governance.

"When no products are delivered, there is, of course, something else going on. Then it's just fraud. In this case, it was not fraud, but at one point it was heading for deception. But when is something a deception? And then comes the ethical aspect. And at some point, that, fortunately, grew in importance" (IN2)

“I think we have become increasingly aware of the fact that consumer confidence should be one of our main spearheads. And that we must also play an important role in this.[..] Yes, and that's a bit more than we might have thought beforehand. That our responsibility is a bit wider or bigger [..] Then your responsibility can be bigger than just a serving hatch” (IN11)

This change did not happen overnight. PayNow reached out to the parties multiple times, asking them to change their practices. Since promises were not realized, PayNow felt they had to let the parties go.

“We want all web shops that do business with us to meet several conditions. And those parties that did not comply, and had a chance to comply, did then put all the effort there [once it was required of them]. And then we said goodbye.” (IN2)

Interestingly, after deciding to let the web shops go, various interviewees argued that these web shops only attracted poorly paying consumers anyway. More importantly, getting rid of the web shops was seen as a way to attract better web shops (IN1), indicating a change in how legitimacy was built. To get better web shops, interviewees felt the image of PayNow should be on a similarly high level (IN2).

After the conditions for the dubious web shops had been changed, the legal authority told PayNow that they indeed had an obligation that went beyond mere legal compliance. This conversation marks a change in how impact on regulatory legitimacy caused a change in the organisational beliefs.

5.2.3 Changes over time

PayNow controlled suppliers in various ways in response to particular incidents or risks. For example, before the dubious web shops were ousted from the platform, they had to pay a higher price per transaction than any other web shop (IN2). Following the decision by PayNow to oust the web shops in 2018, they installed a due diligence process to keep out any 'louche shops' (D2). This decision was made to prevent new parties that misled consumers being taken on and to prevent trouble. Later, after the authorities had investigated PayNow, changes were made to the due diligence procedure (D2). These changes resulted in an even stricter process, according to some interviewees (IN1; IN2). Unfortunately, due to the relatively long time ago that these events happened, not all respondents remembered the changes that were made due to the investigation. Instead, via document analysis, the first version of the due diligence process before the investigation was compared with the version after the investigation.

This analysis showed that, before the investigation, the due diligence procedure assessed whether the merchant complied with PayNow's terms of service, such as providing the correct information to consumers. Furthermore, it was the sales department that conducted the compliance check, *after* a merchant had signed the contract. After the investigation, to prevent conflicts of interest, the customer service department started doing the due diligence, and *before* a new merchant was signed. Also, a checklist was introduced to collect website information and to verify whether the web shop has a correct listing at the Chamber of Commerce. The revised due diligence procedure underlines the changes to the platform membership conditions and procedures.

5.3 Commonalities and differences between events

Our coding reveals commonalities and differences among the events. A common pattern is that each event began with a threat to legitimacy (e.g., customer criticism or looming regulation) and was inhibited by factors such as profits from malicious actors or existing norms and values. As the threat grew larger than the inhibitors, the platform owner made changes.

Two main differences were found, both related to the platform provider's maturity. First, as the platform provider matured, duty of care and responsibility became more valued. Thus, the legitimacy threats weighted increasingly heavily. Second, concerns over profitability were more important in the start-up phase than in later stages. Because of this, profitability of malicious parties became a less important inhibitor. Thus, changes to governance were more likely to occur as the organization matured.

6 Analysis of results

We compare the empirical findings (Section 5) to the theoretically derived propositions (Section 3). In doing so, we confirm or contest the proposed patterns (Yin, 2018). The propositions suggest several causal connections between theoretical concepts. Hence, to compare the empirical events with the propositions, an explanation of events is required. We follow Gregor (2006, p. 617), who states: "to ask for an explanation of an event is to ask for its cause". Yet, Gregor also argues that proving causality can be problematic when, as in our case research, various contextual factors can affect causation. To handle the complexity of causality, we apply counterfactual analysis (Kim, 1999).

Mahoney & Barrenechea (2019, p. 307) position counterfactual analysis as "an important tool of causal inference in small-N and case-study analysis". To argue causality, we use two types of counterfactuals: necessary condition counterfactuals and SUIN condition counterfactuals (See Mahoney & Barrenechea 2019 for explanation). In our analysis, we point to examples from event 2 for reasons of readability, since this particular event was elaborated on in Section 5. Where relevant, we refer to instances from the other five analysed events.

6.1 Testing of propositions

In our case, several risks elicited criticism from consumers and other stakeholders. In one instance, web shops misled consumers (event 2). Consequently, if the risk of misleading consumers harms or can harm the organisation's reputation, then this risk arguably reduces moral legitimacy. Conversely, the question is: In the absence of the risk, would moral legitimacy not have reduced?

Teixeira (2009) operationalises a threat to moral legitimacy as impending or actualised negative assessment from key stakeholders. Furthermore, Scott (2001) defines moral legitimacy as the extent to which an organisation adheres to the values of society. Besides these definitions, it is important to note that (moral) legitimacy does not necessarily convey what it is that motivated an actor to protect legitimacy. For example, protecting moral legitimacy might be a result of the values upheld by an organisation. However, moral legitimacy might also be maintained in order to safeguard financial interests (i.e. continuity) (Suchman, 1995b).

In the case of PayNow, several risks such as web shops that misled consumers led to criticism from consumers and in some cases even from stakeholders such as CollectPay. More specifically, in the PayNow case this was often referred to as damaging the reputation of the organisation or posing a threat to the reputation. Consequently, if the risk of misleading consumers can harm, or has harmed, the organisational reputation, then it can be said that the externality did negatively affect moral legitimacy. Moreover, several sources within the organisation stated that when employees learned about the practices, they found them morally reprehensible and wanted the web shops gone from the platform. Effectively, these events questioned the morality of the existing practices.

We argue that, without the externality, consumers would not have felt misled. Consequently, some of the complaints would arguably not have occurred. According to this counterfactual reasoning, without the externality, there would also be no impact on reputation. Therefore, it seems plausible that the occurrence of an externality is a necessary condition for negative impact on moral legitimacy. Hence, we conclude:

Proposition 1 – The observation of third-party risk in a platform ecosystem threatens or negatively affects the moral legitimacy of the platform sponsor, leading to adjusted conditions for third-party access to the platform – Supported

PayNow already ousted the web shops before the investigation by authorities took place (event 2). This sequence of events leads to the question: Did regulatory legitimacy motivate the organisation to act? Interviewees stated that the investigation by authorities was unexpected. Yet, PayNow did launch a compliance investigation before banning the web shops. From this we infer that the allegedly misleading web shops did threaten regulatory legitimacy. Alternatively, if there had been no risk of misleading

consumers, then there would be no threat of regulatory interference. In another event (event 6) conditions for platform membership were adjusted due to a perceived threat caused by allowing smart shops onto the platform. Similarly, in event 3, PayNow reported the data incident because they said that it would be suspicious to authorities if they never had any incidents reported. Hence, it is plausible that regulatory legitimacy was under threat. Hence, we conclude:

Proposition 2 – The observation of third-party risk in the platform ecosystem threatens or negatively affects the regulatory legitimacy of the platform sponsor, leading to adjusted conditions for third-party access to the platform – Supported

We find that the extent to which a platform sponsor assumes the responsibility for negative externalities depends on organisational maturity. As could be inferred from various statements made in interviews, the legitimacy of a start-up might not be equally affected by the same risk as that of a more mature organisation. Furthermore, interviewees stated that once the organisation became more mature, they were more capable and felt more responsible for managing the risks of misleading web shops (event 2). Hence, we suggest that organisational maturity affects whether a risk negatively affects the legitimacy of an organisation. The relationship of legitimacy with organisational maturity explains in part why it may be legitimacy, instead of solely reputation or user satisfaction concerns, that affects ecosystem membership decision-making. The user complaints and satisfaction existed for a longer term and were not sufficient reason for the platform sponsor to oust third parties. Only after the platform became more mature and other issues arose did the third parties get ousted.

7 Discussion

Three main limitations apply to our study. First, as we study how negative externalities are handled, interviewees may give socially desirable answers. To minimize this, we assured respondents that we would anonymise the case and personal details. Second, recall bias might play a role, as we asked interviewees to reflect on past events. As mitigation, we used documents to understand the context of the events, and referred to these in the interviews. Third, although interviewees were diverse and saturation was attained, more interviews might lead to additional findings. Interviewing other stakeholders (e.g. consumers) could show whether legitimacy concerns are grounded in reality.

This paper is a first to apply legitimacy theory to study how risks (i.e. negative externalities) drive changes to platform membership conditions. We consider various externalities, such as bad ecosystem actors, platform responsibility and moral issues. Our explanation deviates from attractiveness (e.g. Wessel et al., 2017), user satisfaction (e.g. Cennamo and Santalo, 2019) and other economic motivations (e.g. De Reuver et al., 2015; Wessel et al., 2017). We thus provide a basis for theory development on how externalities affect decisions on platform membership conditions. Our study also poses a starting point for investigating negative externalities of open platforms.

Our paper underlines bidirectional and lagged causal mechanisms of platform membership conditions. Namely, the paper illustrates that negative externalities may both shape platform governance before and after platform launch. Whereas earlier studies focus on exogenous drivers for change in governance of transaction platforms (Gawer, 2014), this research shows that endogenous drivers, such as legitimacy concerns, are relevant too. In this way, our paper provides a basis for future studies on endogenous drivers of change in platform governance.

Our findings show a pattern, in which legitimacy concerns tend to weigh more heavily in decisions about platform governance as the platform sponsor matures. This finding is in line with Gawer (2020), who argues that the evolutionary stage of a platform may affect decisions about the platform boundary, while more mature platforms even forego existing network effects to focus on long-term profits. We contribute to this line of thought as a maturing platform sponsor increasingly chooses to forego the revenues from dubious third parties as legitimacy concerns arise. Future multiple case studies may study transaction platforms at different stages of maturity, in order to explore the interactions between maturity and governance decisions.

Another important finding is that legitimacy affects how decision makers perceive responsibility for negative externalities. Recent discussions around disinformation underline the issue of who is responsible for what on a platform. Furthermore, this also relates to questions on whether platform providers should control their complementors and/or users (Cusumano et al., (2019). Legitimacy-related explanations might offer researchers insight in why decision-makers choose to curate.

Further research may also widen the issue of legitimacy¹. For instance, end-user trust may be important. Legitimacy concerns may reduce trust in platform providers, and mistrust could be a reason to change platform governance. Further, the interplay of legality and profitability may be explored: platform providers might be held liable for illegal conduct of third parties, thus creating financial damage.

Besides legitimacy theory, other streams of literature might also offer potentially viable streams of research for the digital platform governance literature. One such potential for future research might be in organizational learning theory. Our paper aims to answer why platform governance changes, whereas organizational learning might provide understanding on how platform governance changes due to internal and external factors. This theory might aid a process explanation of the how and why the platform governance was adjusted due to threats to legitimacy.

8 Conclusions

The negative externalities of digital platforms increasingly receive attention in society and scholarly debate. Issues of safety, democracy and fairness emerge especially in the area of transaction platforms such as e-commerce and social media. Developing new understandings of how such negative externalities affect platform governance decisions is paramount, both for scholars in digital platforms and policy makers that are looking to promote responsibility of platform providers. This paper provides a critical case illustrating how negative externalities impact platform governance decisions.

The paper shows that platform sponsors adjust the conditions under which third parties may transact on their platforms in response to negative externalities. We find that negative externalities, such as the low-quality actors in an ecosystem, negatively affect moral and regulatory legitimacy. These legitimacy threats trigger a platform sponsor to adjust their platform governance to manage ecosystem members. Legitimacy threats especially start to weigh heavy as a platform provider matures. Our case study findings support the proposition that platform governance may change due to these externalities, resulting in different norms, policy and conditions under which third parties may join the platform.

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