Governance and control of sharing economy platforms: hosting on Airbnb

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Abstract

Sharing economy platforms have recently surged as popular venues of business enabling people around the world to digitally interact and temporarily exchange their under-utilised assets. Beyond a very small number of exploratory studies of accounting practices underpinning these digital platform organisations, little is known about their governance and management control. This paper examines the governance and management control exercised by a digital platform owner over global users exhibited by Airbnb, a successful and pervasive sharing economy platform in the holiday accommodation sector. Through netnographic method, this study investigates the platform owner governance and control issues with respect to hosts. The analysis reveals the platform owner using predominantly formal bureaucratic control systems as mechanisms to govern and control its users. Through users' compliance, they and their activities are made visible to the platform owner, which in turn maintains control over the value creation process. This study provides insights into how accounting systems are mobilised in digital platforms to facilitate their governance through mechanisms of surveillance, monitoring control over digital users worldwide, and how innovative and disruptive phenomena nonetheless rely on traditional technologies of governance to maintain power and control.

Keywords – Sharing Economy, Governance, Platform organisations, Airbnb, Control.

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1. Introduction

A very recent development in the digital space is the sharing economy, a form of collaborative consumption facilitated through digital platforms that enable ordinary people to participate in peer-to-peer transactions of under-utilised assets, resources, time and skills (Richardson, 2015; Stephany, 2015; Belk, 2014). The sharing economy is a result of constant development and innovation in the digital systems space. Internet users have moved from previously being only passive recipients of information to being active producers and consumers of information (i.e. Wikipedia, Facebook and Twitter, Tripadvisor and Zomato), and more recently exchanging under-utilized assets such as rooms and houses, cars, time and skills, facilitated through a digital platform. Thanks to the increased Internet access made possible by new mobile technologies, more and more business activities now happen online, supported by digital platforms. This has prompted myriads of ordinary people to join these digital platforms at no cost to themselves and to exchange underutilised assets potentially with all the platform members. Airbnb (2008) and Uber (2009) are just two examples of alternative marketplaces where transaction costs are lower than for traditional organisations in the industry and the where barriers associated with entering the market are reduced. For example, Airbnb is a sharing economy platform that supports short term holiday leasing of residential property between owners and tenants, while Uber is a sharing economy platform that facilitates the transport of individuals and groups in private cars.

With respect to sharing economy platforms, we recognise a platform owner who provides the digital platform and regulates its access and a myriad of users who use the platform to temporarily exchange their personal assets (i.e. house or rooms on Airbnb). and are directly involved in the value creation process of the platforms by providing and trading their goods or services. This myriad of globally dispersed users is not contractually bound to the platform owner as in a traditional employee-employer relationship. However, the value creation and the financial performance of the organization depends upon how the users' activities perform on the platform. These activities are not controlled directly by the platform owner, who in turn seeks ways to encourage users' performance via digital coordination. As a result, the governance of platform organisations becomes a crucial part of their (financial) success as it allows (or hinder) the capability of the platform owner to coordinate and encourage a myriad of users – globally dispersed and not contractually bound. Equally, the governance model of sharing economy platforms is an important factor that users should be considering before entering this type of business, as this may affect their decision rights and the way they conduct their activities.

This paper aims to explore the governance exercised by sharing economy platforms and to investigate the role of accounting and management control in sustaining a platform governance system. In pursuit of this aim, the study addresses two research questions. First, what is the platform governance approach employed by sharing economy platforms? To answer this question, the conceptual framework of platform governance by Tiwana, Konsynski & Bush (2010) is employed to investigate how decision rights are partitioned and what control mechanisms are implemented by platform owner and users on the Airbnb platform. Second, what is the role of accounting and management control in the governance of sharing economy platforms? The role of accounting in platform governance of the sharing economy is analysed by investigating how accounting and control practices are employed by the platform owner and the platform users (Airbnb hosts) as a mechanism for platform governance. In addressing the above research questions from a governance perspective, the study seeks to illuminate who and what are governed in relation to the sharing economy IT platform, and how this is implemented. This involves considering the relative power of platform stakeholders and their relative control over the platform, its processes and rules of engagement. With respect to such control relativity,

the study considers the roles of market, bureaucratic and clan control and their sourcing from authority, values, beliefs and reciprocal relations. In doing so, the relative roles of formal and informal control are also considered.

Using the case of Airbnb, this research sheds lights on the governance of a new way of organising economic activity that is becoming more and more successful worldwide. It therefore contributes to extending our knowledge of this novel business model and how accounting and management control can play a role in sustaining a system of platform governance in the sharing economy. Finally, by making use of a conceptual framework drawn from information systems literature as well as drawing on the management control literature, this investigation demonstrates the usefulness of interdisciplinary approaches to expand accounting research and practice in the digital realm.

While some studies in accounting have focused on the implications for accountability and auditability of the use of ratings and reviews in online communities (i.e. Tripadvisor) or marketplaces (Amazon.com); recent studies have called for more research on this new forms of organisation of the economic activity (Kornberger, Pflueger & Mouritsen, 2017) in order to understand the potential role of accounting in platform organisations, that are neither clan-like organisations (Ouchi, 1980) nor networks (Burt, 2009). As yet, little is still known about the governance and control of digital platform organisations, especially when it comes to sharing economy platforms, which are socially and economically disruptive. Socially, the sharing economy engages myriads of ordinary people into becoming micro-entrepreneurs, with consequences for the traditional bounds of work and employment, as well as the traditional forms of coordination of the work force. Economically, by introducing an alternative form of economic activity, it poses questions on how profits and value are created and shared within the platform.

The remainder of the paper is structured as follows. The next section depicts the context of the investigation by highlighting the salient features of sharing economy and its implications for governance and accounting research. The third section provides a review of the relevant literature on governance and control in accounting and presents a conceptual framework for platform governance, drawn from information system research. The fourth section is dedicated to the methodology by presenting the Airbnb case study and the netnography method that was used to collect and analyse the data. The fifth section reveals the results from the analysis informed on the platform governance framework. The sixth section provides a discussion of the results. Finally, the concluding section presents the main contributions of the paper, as well as research limitations and paths for future research.

2. The digital community: emerging accounting research

The growing digital environment had begun to attract researcher interest in its implications for accounting and accountability. As internet users have moved from being passive consumers of information to interactive participants and "prosumers" of digital information (Ritzer & Jurgenson, 2010; Berthon, Pitt, Plangger & Shapiro, 2012) they have begun to actively contribute to website content, both providing and sharing information. This has enabled them to influence others' choices by providing their opinions, usually in form or ratings and reviews. Through social media and websites, they increasingly rate and review products, experiences and brands, thereby responding to people's need for clarification, verification and for transparent and reliable decision-making information (Blank, 2006). So as accounting researchers have begun to identify, the digital space serves as a relevant example of the increasing demand for accountability within society (Power, 1996; Miller & Rose, 2008; Scott

& Orlikowski, 2012). Indeed, forms of accountability have been recently identified within virtual communities and online marketplaces, where user generated reviews and ratings are reshaping the role of accountability (Scott & Orlikowski, 2012) and engendering trust among users (Jeacle & Carter, 2011; Jeacle, 2017). More recently, the focus has moved to social media which have been found to provide knowledge to exert action on distant customers in a telecommunications company case study (Agostino & Sidorova, 2017).

Accounting research into the digital space to date can be briefly summarised as follows. With respect to Tripadvisor, in which travellers review and rate hotels, restaurants, and venues globally, Jeacle and Carter (2011) claim that the success of this review-based community represents that need for the verification of everything (Pentland, 2000), the main feature of the audit society (Power, 1997). Scott and Orlikowski (2012) found that Tripadvisor's system of user-generated ratings and rankings has redistributed and changed the accountability relationships within the travel sector. From being accountable to a small number of guests and inspectors, hotels have become accountable to "the crowd" via the Tripadvisor ranking (Tripadvisor Popularity Index), thereby reconfiguring traditional accountability relationships (Scott & Orlikowski, 2012: 36). Jeacle's (2017) study of Amazon investigates the role of the online reviewer in electronic commerce. Amazon is an online marketplace where customers review and rate the quality of the products to support the buying decisions of other users and, at the same time, can use reviews and ratings to make their purchase choices. Again, Jeacle's (2017) study found that Amazon depends upon users' reviews and ratings to build trust and reputation within the marketplace. Finally, more recent accounting research by Agostino and Sidorova (2017) has focused on Facebook and social media as venues for communication and networking that produce user generated, real-time data. In their case study on an Italian telecommunications company, they argue that, being user-generated, such social media data reduces the distance between the periphery and the centre and allows a more personalised action on distant consumers. These aforementioned studies have focused on three different types of digital platforms (Kornberger et al., 2017) – online review-based communities (Tripadvisor), traditional online marketplaces (Amazon or Ebay) and social media (Facebook) – to understand the role of the digital users in (re)shaping accountability and auditability relationships in traditional sectors. However, to date, no accounting research into the sharing economy phenomenon, particularly with respect to its digital platform organisations' governance and management control characteristics and processes, has been conducted. This study builds on the above prior research foundations and now moves to address the questions relating to sharing economy platform governance and control as outlined at the beginning of this paper.

3. Context of the study

3.1 Sharing economy platforms: governance and control

The sharing economy (Stephany, 2015) is the result of the latest enhancement of interactive internet technologies, where globally dispersed users leverage the features of the digital platforms to exchange their (under-utilised) assets, provide services or share skills, digitally mediated by a platform owner (Kornberger et al., 2017; Martin, 2016; Richardson, 2015; Schor, 2016). The exchange prompted by sharing economy platforms is not simply a commercial exchange, especially if we consider that personal assets or skills are temporary exchanged or rented. The sharing economy distances itself from a pure market economy, because it sits "on a continuum between gift economy and market economy" (Sundararajan, 2016, p. 38), including some level of intimacy in such exchanges; hence, the need to create trust among the users, who are basically distant from and strangers to each other. Rankings, ratings, and reviews

are the instruments adopted by sharing economy platforms to build users' digital reputation and encourage the exchange between trusted strangers. These constitute the evaluative infrastructure (Kornberger et al., 2017) which is the backbone of trust generation in platform organisations and is based on calculations and performance indicators to guide the decision-making process of platform users. Although accounting supports the evaluative infrastructures of platform organisations (Kornberger et al., 2017), other related features of sharing economy platforms such as governance and control, also merit investigation with respect to their differential processes and impacts compared with the traditional economy and its organisational structures and processes.

No investigation in accounting has yet examined a sharing economy platform and the mechanisms of governance and control implemented by these digital platform organisations. The sharing economy belongs to that new type of organization – the platform organization – where "distributed and often switch-role producers (sellers) and consumers (buyers) [are] interacting with each other, digitally mediated by a third party, the platform owner" (Kornberger et al., 2017: p. 79). However, sharing economy users are not just reviewing services (e.g. Tripadvisor), exchanging products (e.g. Amazon or eBay), or commenting (e.g. Facebook); rather they are granting temporary access to their personal assets and are directly involved in the value creation process of the platforms by providing and trading their goods or services. In addition, platform organisation users are not contractually bounded to the platform owner, as if they were employee and employer. However, the value creation and the performance of the organization depends upon how the users perform their activities on the platform, thereby requiring the platform owner to be able to coordinate and control such activities. As a result, the governance and control of platform organisations create a challenge for the platform owner who needs to coordinate a myriad of users globally dispersed and not contractually bound, and upon whom the platform's performance depends. Similarly, the governance model of sharing economy platforms is an important factor that users should consider before entering this type of business, as this may affect their autonomy and their interests.

The advent of sharing economy digital platforms has disrupted the traditional markets, by creating online marketplaces that permit the rental of personal assets from one private individual to another on a global scale (Guttentag, 2015). In addition, the sharing economy platforms prompt a disruptive business model that may radically change the approach to work and employment, as well as to the commercial exchange of goods. It is therefore no surprise that the sharing economy presents itself as an alternative form of capitalism.

3.2 Airbnb: functioning of a sharing economy platform

Before presenting the results from the analysis on Airbnb, it is worth introducing the functionality of this sharing economy platform. Airbnb defines itself as "a trusted community marketplace for people to list, discover, and book unique accommodation around the world" (Airbnb.com, 2017a). This immediately indicates an attempt to portray elements of a socialised community employing mutual trust and reciprocity as sources of what might be projected as clan control. Upon entering the Airbnb website (*www.airbnb.com*), visiting users are immediately prompted to start a search for accommodation, entering a destination and preferred dates of travel, even if they are not yet part of the platform (Figure 1).

<div align="center">Insert Figure 1 about here</div>

Indeed, even casual visitors to the site are allowed to search for potential accommodation, but if one wants to book or list a property, they are required to formally join the online network by creating an account. Thus, while the platform overtly promotes a socialised community approach to control, initial access to any level of potential participation in the platform is first subject to the platform's bureaucratic control requirements. Similarly, to other digital platform organisations (Kornberger et al., 2017), Airbnb users can have switching roles, being both guests (buyers) and hosts (sellers/renters) of accommodation. However, in this study our main focus is on hosts and their coordination by Airbnb. Joining the community is dependent upon the provision and bureaucratic verification by Airbnb of users' ID and contacts. Users are then asked to complete a personal profile; specific details, such as name, surname, age, country of residence, email and phone contacts are compulsory, but personal contacts are not publicly available to the platform; they are provided privately to users only when the rental transaction is finalized. This arguably sets a basis for the platform's exercise of formal surveillance and monitoring controls.

The platform requires compliance with a detailed set of rules of engagement for both hosts and guests, thereby exercising their dominant decision rights over participation processes and permissions for platform users. Hosts are those who join the platform to list and rent out their spaces, which can be rooms in their private homes, or entire houses. If users wish to act as hosts and seek to list their accommodation, they do not only set out a personal profile, but also create the listing for their property, including pictures and rules of the property, in order to advise the potential guests (Figure 2). Guests can book directly or ask for booking via a system of private messaging within the platform. When guests are approved by hosts, they receive details about the listing address and the host's personal contacts. The cost for the stay is paid by the guest only at the effective check-in at the host's property and is inclusive of a fee that is attributed to Airbnb and constitutes the source of income for the company.

Insert Figure 2 about here

Once the stay is concluded, Airbnb asks both the guest and the host involved in the transaction to reciprocally review each other and rate their experience. Guests are asked to rate the host and the listing with reference to the overall experience and 6 other aspects: accuracy; communication; cleanliness; location; check-in; value. The rating is given on a Likert scale (0 to 5 points). To gain a rating, the host must receive ratings from at least 3 guests before the average appears. The case study host account did not receive any rating as no guest was booked, therefore, an example of a rating from a random listing on the Airbnb website is provided in Figure 3. From our investigations of this process, it becomes clear that while guests and hosts appear to have decision rights over their evaluations and ratings of premises and each other, the measurement and accountability metrics and reporting processes and deadlines are governed by the platform.

Insert Figure 3 about here

4. Platform governance and control: a conceptual framework

Research into the sharing economy and its business model characteristics has started to develop only recently, in response to the need to shed light on this new phenomenon. To date, there is no unified definition of the sharing economy (Muñoz & Cohen, 2017), especially if one cares to consider that the two terms contradict each other. The word "sharing" implies an exchange without expectation of any economic gain, while such income expectation is inherent to the concept of "economy" (McLaren & Agyeman, 2015). However, the term "sharing economy" is now the term predominantly employed to identify this business model and in this study, we

consider "sharing economy" as "a socio-economic system enabling an intermediated set of exchanges of goods and services between individuals and organisations which aim to increase efficiency and optimization of under-utilized resources in society" (Muñoz & Cohen, 2017: 21). Such a socio-economic system is generally associated with a platform that can be digital or physical and fosters peer-to-peer interactions among individuals who aim at exchanging under-utilized resources (Chase, 2015). The platform is deemed so fundamental for the development of the sharing economy (Chase, 2015; Cohen & Muñoz, 2016), that it has been defined as a new type of organisation, the platform organisation, where "distributed and often switch-role producers (sellers) and consumers (buyers) [are] interacting with each other, digitally mediated by a third party, the platform owner" (Kornberger et al., 2017: p. 79). Thereby, the governance of the platform depends upon the connections and relationships establishing between the platform users – switch-role producers and consumers – and the platform owner. Previous studies have indicated how in digital platform organisations the platform owner exerts its control over users via big data and ratings and reviews, without exercising stringent individual control (Kornberger et al., 2017). However, the governance and control mechanisms that make possible this generalised control over platform users have not been investigated in detail nor their functioning explained.

In extant research, the governance of the sharing economy is defined as collaborative governance because platform users are expecting to participate in the decision-making process and in the governance of the platform and to collaborate with the platform owner (McLaren & Agyeman, 2015). However, the governance model can vary a great deal in each platform, according to the level of participation and power assigned to users and platform owner. While little is known about governance models of sharing economy platforms, insights about governance in software platforms can be drawn from information technology research which generally treats IT governance as a subset of corporate governance and concerned with participants' decision rights and accountabilities that control behaviour with a view to achieving overall system and organisational goals (Brown & Grant, 2005; Webb, Pollar & Ridley, 2006). For IT and platform governance, the focus is on who is governed, what is governed and how is it governed (Tiwana, Konsynski & Venkatraman, 2013). Specifically, Tiwana et al (2010; 679) define platform governance as "who makes what decisions about a platform". The platform owner controls the platform, related stakeholder interactions and dictates the rules of engagement between the stakeholders in the platform (Janssen & Estevez, 2013). The platform then, is the focal point of engagement between the actors and aims to create a community that lowers transaction costs and enables some degree of control by its users (Janssen & Estevez, 2013).

As Schreieck, Wiesche & Kremar (2016) explain, within a platform system, power can be centralised or decentralised between stakeholders in the platform organisation. This is important, given that Schreieck et al (2016) recognise a platform ecosystem as including all stakeholders interacting on the platform. Brown and Grant (2005) point to the control over standards and economies of scale implicit in a centralised approach to IT control, as compared with the responsiveness to stakeholder needs implicit in a more decentralised approach to IT control. Furthermore, Tiwana et al (2010) point out the platform owner's trade-off between retaining enough control over the platform while relinquishing enough control to encourage autonomy and initiatives of the users (Tiwana et al., 2010). Of course, control in the platform environment can be bidirectional, where platform owner and platform users can simultaneously exercise control over each other (Tiwana et al, 2010).

This literature offers a conceptual approach to analysing platform governance that can enhance our understanding of governance in the sharing economy environment. Accordingly, platform governance design can be investigated according to two perspectives: decision rights

partitioning between platform owner and participants (regarding what a system should do and how it should do it) and formal control over system processes and outputs and informal (clan) control over beliefs and norms that guide behaviour (Tiwana et al., 2010; Schreieck et al, 2016). As a consequence, in the context of this investigation, the governance model can be analysed by considering how decision rights are divided between users and platform owner; by investigating "the formal and informal mechanisms implemented by a platform owner to encourage desirable behaviours" (Tiwana et al., 2010: 680) by platform users and vice versa (Figure 4).

Control arguably constitutes a major dimension of the platform governance structure and process. Ouchi's (1979, 1980) concepts of market, bureaucratic and clan control are pertinent concepts through which platform control may be variously enacted. Market based control of course relies on an efficient market mechanism that provides price information as a central means of control, although as Ouchi (1979) recognises, the actors in any market are also invariably subject to bureaucratic controls. The latter are enacted through surveillance, monitoring of performance against rules, and evaluation. These assume importance and are employed to greater degree when markets and trust between actors are seen to be less reliable (Ouchi, 1979, 1980). However, in the various forms that bureaucratic performance management and evaluation controls occur, they can be subject to problems of top-down imposition, inappropriate benchmarks, inaccurate information, subjective measures and lack of actor participation and influence (Berry et al (2009). A third avenue for exercising control is that of clan control based upon a process of socialisation whereby actors develop mutual commitments to each other, shared values and objectives, and agreement about appropriate behaviour. When such an identifiable culture is developed in one organisation, Ouchi (1979, 1980) has referred to it as clan control and sees it as producing a sense of community and at least partially substituting for more costly bureaucratic surveillance focussed control. In a sense, it offers a basis for a relationships approach to corporate governance (Parker & Hoque, 2015). Ouchi (1980) sees all three forms of control as based on reciprocity, but with bureaucracy and clan control relying also on legitimate authority, and clan control additionally relying on common values and beliefs. Control approaches employing more than one of these forms, could be seen as laying a foundation for employing Otley's (1999) notion of the organisational control package. Ouchi (1979) argues that market and bureaucratic control rely particularly on the ability to measure output or behaviour, while if such measurement encounters limitations, then clan control that relies on ritualistic and ceremonial forms of control comes to the fore. For a sharing economy platform organisation, the contribution of control to its governance then becomes a question of what combination of approaches may be in use, and whether they deliver effective governance.

One further dimension of control that offers potential avenues for implementing effective platform governance strategies and outcomes, is the balance and potential complementarity between formal and informal or social control (Collier, 2005; Berry, Coad, Harris, Otley & Stringer, 2009; Stouthuysen, Slabbink & Roodhooft, 2017). In circumstances such as in entrepreneurial, internet and rapidly changing organisations and environments, it has been found that informal controls such as socialisation, group norms and organisational culture can be more important forms of control than traditional formal controls (Collier, 2005; Berry et al, 2009). Nonetheless, socialising forms of control may be reinforced by formal controls and related procedures (Van der Meer-Kooistra & Scapens, 2004). Nonetheless, the effectiveness of such control approaches and combinations has been seen to rely on levels of trust between collaborating parties, particularly in terms of reducing costs of monitoring and governance and improving performance of all participants (Van der Meer-Kooistra & Vosselman, 2000; Langfield-Smith & Smith, 2003).

As a result, the analysis of governance and control in sharing economy platforms is deemed necessary to gain a critical understanding of their innovative traits, their advantages as well as their weaknesses. To date, the visible impacts of sharing economy platforms are arguably quite contradictory. On the one hand, the great success of major sharing economy platforms have dramatically challenged traditional sectors such as hospitality and transportation, by increasing competition. However, they have also created new job opportunities and greater work flexibility. On the other hand, because these platforms are often bypassing national, state and local laws and regulations, labour rights as well as individual safety may be at risk (Dudley, Banister, & Schwanen et al., 2017; Malin & Chandler, 2017). Investigations into governance and control mechanisms within the sharing economy are therefore necessary to understand the underlying values of the sharing economy and to evaluate whether the promise of an innovative approach to economy, resource distribution and collaboration can be effectively delivered.

In addition, in the sharing economy the platform owner requires knowledge of the users' activities if he/she wants to exercise power and make the platform governable. Second, as the platform users are not contractually bounded to the platform and promised autonomy, they become self-regulating agents that the platform owner needs to monitor and direct towards the organisation's objectives. Finally, as the platform users are dispersed worldwide, the platform owner has to wisely use the platform to maintain control over the platform operations and "provide an interface for interaction and controlling mechanism for transactions between tens of thousands, sometimes even millions of buyers and sellers who might never meet in person" (Kornberger et al., 2017: p. 79). Thus, the sharing economy offers an interesting and challenging context in which to study the technologies (of government) that may be at play in the process of governing and controlling the digital users.

Insert Figure 4 about here

5. Methodology

To answer the research questions, the investigation makes use of a netnographic analysis (Kozinets, 2002) focussed on Airbnb, one of the more successful examples of the sharing economy, a digital platform dedicated to travel, in which "hosts" willing to rent out a room or property are able to be found by "guests" searching for accommodation. Founded in 2008, Airbnb is now valued $26 billion and has more than 60 million users, 3 million listings and 200 million guests, surpassing the world's largest hotel chain (Luca, 2017). Airbnb presents itself as "a trusted community marketplace for people to list, discover and book unique accommodation around the world" (Airbnb.com, 2017a). On this platform, switch-role sellers (hosts) advertise their room or property for rent to buyers (guests) searching for accommodation. There are three main reasons for choosing an Airbnb host account as a case study for this investigation. First, there are to date no studies in accounting that have investigated a sharing economy platform organisation. Second, Airbnb is already 10 years old and could be expected to have a well-developed governance system suitable for investigation. Finally, Airbnb is changing the way of working if one cares to consider how Airbnb presents itself:

> "*Airbnb uniquely leverages technology to economically empower millions of people around the world to unlock and monetize their spaces, passions and talents to become hospitality entrepreneurs.*" (Airbnb.com, 2017a)

To those who host on Airbnb, the platform owner promises to provide an easily accessible digital platform through which to rent out their property (or part thereof); to allow them "full control of availability, prices, house rules, and interaction with guests"; and to support them in every step with "tools, hospitality tips, 24/7 support, and an online community of experienced hosts" (Airbnb.com 2017b).

The netnographic methodology is an online ethnography that focusses on experiencing the Airbnb online environment as a typical Airbnb user (host). In accordance with netnographic methodology, we also undertook an online survey with 60 Airbnb hosts to cross-check results from the netnography analysis. Netnography is a research methodology that applies the principles and tools of ethnography to digital environments and is widely used in marketing research (Kozinets, 2010). It is useful for analysing virtual spaces because it allows the researcher to collect and analyse data and observations regarding an online community in a natural and economical manner (Kozinets, 2002). The whole netnographic analysis develops in six steps, as follows:

1) Entrée
2) Data collection
3) Data analysis
4) Data (findings) interpretation
5) Research Ethics
6) Member checks (Kozinets, 2002)

According to the approach chosen by the netnographer and the restrictiveness of the online community under investigation, the process may require less steps (Costello et al., 2017). In this study, we chose to maintain a passive non-participatory approach. Accordingly, this approach did not require us to declare our presence to the community (entrée). In addition, as on Airbnb all content, reviews and users' profiles are publicly available – even for non-registered users – strict ethics requirements are not applicable in this context (Langer and Beckman, 2005).

As a result, the netnography process has started with the data collection from a single community, the Airbnb platform at www.airbnb.com. First, the authors navigated the Airbnb website to obtain a general understanding of the platform functioning, and familiarise with the platform environment. The data collection consisted of downloading public website contents and pages, as well as taking field notes when familiarising with the Airbnb platform environment, when observing the functioning of the platform and the different roles of hosts and guests. Once a knowledge base of the Airbnb platform was built, a host account was activated by the first author, who acted as a host from April to December 2017 (Martin, Upham & Klapper, 2017). During this period, the account holder collected field notes by observing the decisions a normal host can take when activating the listing, by monitoring the information and communications from the platform owner, by reading the content of the host account pages and by studying the performance metrics available to a normal host.

The netnographic data analysis involved analysis of the field notes and observations collected by the netnographers. This entailed an initial manual open coding of notes and observations to identify emergent themes referring to "decision rights partitioning" and "control", according to the platform governance conceptual model (Tiwana et al., 2010). Emergent themes were inductively derived through axial coding from the open codes (Denzin, 1978; Parker & Roffey, 1997; Covaleski, Dirsmith & Samuel, 2017) and particularly grouped, where relevant into the two perspectives of platform governance: decision rights partitioning and control (Tiwana et al., 2010).

Finally, to triangulate the netnographic analysis findings, an online survey was employed through 60 self-selected Airbnb hosts. As suggested by Kozinets (2002, p. 136), member checks are "a source of additional insights beyond the limitations of the material […] downloaded, filtered and analysed by the researchers". The survey allowed the researchers to cross-check the findings inductively obtained from their netnography analysis. The sample is not representative of the entire population of Airbnb hosts, but is considered useful for triangulating the observations and interpretations made via the netnography analysis. Respondents were self-selected, being those who responded to a request for participation posted on social media pages dedicated to support Airbnb hosts. The survey included demographic questions, a set of questions about the hosting activity, with specific reference to how decisions are made and the hosts' view of the performance metrics as a control mechanism (Appendix 1). These questions were a combination of closed and open-ended questions, with an emphasis being placed on the open-ended questions.

6. Results

6.1 Airbnb platform governance

The analysis of the documents and information from the Airbnb website and the host account that was set up as a case study by the first author provides insights into the platform governance of Airbnb. From the researchers' examination of all documentation and communications relating to this host account and its transactions, the results of the analysis are presented below, focusing on two main governance related aspects: decision rights partitioning and controls (see Figure 5 for a summary of the platform governance of Airbnb).

Insert Figure 5 about here

6.1.1 Decision rights partitioning

Our case analysis finds that decision rights are distributed between Airbnb and the hosts, who both contribute to the value creation of the business, in different ways: Airbnb provides the platform, while the hosts provide their own properties for temporary rent.

Decision rights of Airbnb
As the platform owner, Airbnb maintains decision rights in three main areas, being the access to the platform, the platform service fees, and the deactivation of host accounts (Figure 5). First, Airbnb is the only one deciding whether to grant users *access* to the platform. Indeed, when the host's account for this investigation was set up, the case study host had to be granted access by Airbnb via ID verification, which required the provision of a personal telephone contact and a national ID code. Only if access is granted, it is possible to list any property as a host. Second, our investigation revealed that Airbnb imposes a 3% service fee on every booking that is made. This service fee is paid by the booked guests, but it increases the final price of the listing set by the host. This fee is calculated on the listing night rate and it is not reimbursed in case of cancellation, therefore it is not subject to the final decision of the guest or the host to go through with the stay. In this respect, what begins as a price setting form of market control, is combined with the platform's bureaucratic control approach to fee imposition. It reinforces

the primacy of the platform's decision rights that govern host activities including their market pricing.

Our examination revealed that Airbnb has a right to decide whether to "limit, suspend, or deactivate" the host account. Two types of deactivation were detected. The first is only temporary and is the consequence of the host's poor performance in terms of guest response rate and number of cancellations[1] During the investigation, the case study host account was temporarily suspended because of two cancellations on two accepted requests. The deactivation was only temporary, and the host (i.e. first author) could reactivate the account immediately, after receiving an email where reasons for deactivation are explained and options to hosts are provided (Figure 6). Indeed, Airbnb does not prevent poorly performing hosts from maintaining their host status but delivers them an early warning reminding them that they should operate according to the platform standards. Arguably this represents a form of feedforward control and governance being exercised by the platform. Our analysis suggests that this deactivation, although temporary, is a way to focus the attention of the host on his/her actual capability to deliver good service to the platform and the potential guests. The second type of deactivation can be either temporary or permanent and it is unilaterally decided by Airbnb with or without notification to the host in order for Airbnb to review the host's account and run the necessary verification before making a decision whether to reactivate or definitely delete the host's account. This clearly exhibits the relative power of the platform being formally exercised as the dominant decision right that significantly overrides any levels of formal or informal decision rights and associated control to which hosts and guests may aspire.

Insert Figure 6 about here

As an aside, our investigation revealed that Airbnb also has a right to exclude specific hosts and guests from the platform if their behaviours have been discriminatory against other users. According the platform rules, if any host violates the anti-discriminatory policy of Airbnb in his/her listing "the host will be asked to remove the language and affirm his or her understanding and intent to comply with this policy and its underlying principles. Airbnb may also, in its discretion, take steps up to and including suspending the host from the Airbnb platform." (Airbnb.com, 2017c). Being the owner of the platform, Airbnb has decision rights related mainly to the usage of the platform, in order to limit and regulate its access. This decision right is exercised primarily through formal bureaucratic control that facilitates the platform's censuring or excluding users who in the platform's view, diverge from what are effectively user clan control characteristics of shared values and agreed forms of appropriate behaviour.

Decision rights of hosts
According to Tiwana et al. (2010), the investigation also reveals that on Airbnb platform, the hosts are attributed decision rights in four main areas: the listing availability, the pricing, the booking process, and the rules of the guest's stay (Figure 5). Just as the platform has the ability to impose bureaucratic formal controls, so the hosts also have decision rights and some associated abilities in this respect. First, hosts have the right to decide how many listings they want to manage from their account, and when to make their listings available for guests to book via a Calendar page (Figure 7). Although this is totally a host's decision, Airbnb provides suggestions about increasing the listing availability. Indeed, on the side of the Calendar (Figure

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[1] The response rate and the number of cancellations are determined to measure the host performance in terms of bookings and communication with potential guests. According to the information provided by Airbnb, the response rate is calculated as the percentage of new enquiries and reservation requests the host responded to (by either accepting or declining) within 24 hours in the previous 30 days. The number of cancellations is determined annually and if the host reaches more than 2 per year, the host account is automatically deactivated, but only temporary.

7), a pop-up window suggests how to improve the listing performance, with indications on how to increase number of potential views by guests, or which are the next most profitable dates to be unlocked for booking.

Insert Figure 7 about here

With regards to rental pricing, hosts are free to set autonomously the nightly pricing of their listing, although they can use Airbnb's support with the 'smart-pricing' option, which automatically changes the nightly price to match the demand in the area where the listing is located. In this way, hosts can surrender their own combination of market and bureaucratic pricing controls in favour of those of the platform. However, hosts can always manually change their prices according to their preferences. With reference to the booking process, the hosts have the option to decide whether they want to be contacted by the potential guests and communicate with them before accepting their booking request; or they can instantly-book guests that meet the verification requirements set by Airbnb. Thus, the formal verification controls exercised by the platform in its approach to internal governance, allow hosts to opt for less bureaucratic steps in their own formal control systems-based governance. The case study host account did not allow any guest to instantly book the accommodation. Instead, when interested, the aspiring guest was required to send an email to the case study host and enquire about availability. This provides the host with additional protection and the right to decide whether to accept the guest or not, as the host is given time to verify the guests, their profiles and their information. Finally, a wide array of decisions regarding the guest's stay are also allocated to the hosts: from check-in and check-out times, to house rules (i.e. no smoking); from communication with the guests to welcoming them into the property; from amenities offered in the property, to the support provided to the guest during the stay. That is also clearly stated by Airbnb when providing an overview of the hosting experience: "With Airbnb, you're in full control of your availability, prices, house rules, and how you interact with guests. You can set check-in times and handle the process however you like." (Airbnb.com, 2017b). Thus, while the platform exercises significant partitioning of decision rights, for hosts compliant with its basic bureaucratic listing and performance rules, it does allow the host a defined set of decision and control autonomies.

6.1.2 Controls

Following Tiwana et al. (2010), the investigation also focused on the second perspective of platform governance, by detecting any control mechanism that is implemented by the platform owner to direct the platform users and vice versa. The analysis of the Airbnb website and the case study host account has offered insights into the control mechanisms – market, bureaucratic and clan, as well as formal and informal – that are implemented by Airbnb to foster desirable behaviour among its hosts as well as those available to hosts to exert control over Airbnb. With reference to control mechanisms over hosts, the case study analysis revealed formal and informal mechanisms that Airbnb is implementing to control host behaviour on the platforms and to improve host performance. In contrast, the control mechanism options that can be implemented by hosts to encourage Airbnb behaviour they desire, are more limited.

Airbnb controls over hosts
Our investigation reveals that Airbnb employs its legitimate authority to exercise three main formal bureaucratic control mechanisms over its hosts (and users in general). These are identity verification; account review and the "superhost" assessments. Through identity verification, Airbnb can control the access to the platform, limit such access and also provide a minimum level of safety for its users when they stay at a host's premises or when as a host they rent out

to a guest. With respect to account review, Airbnb reserves the right to deactivate or suspend a host's account in order to periodically review its performance and verify that the host conforms to the required behaviour on the platform. The "superhost" assessments are assessments repeated four times during the year on every host account, to verify whether the host meets or maintains the requirements for being a "superhost". The superhost is a special recognition by the platform owner accorded to best performing hosts who "go above and beyond for their guests". The assessment is repeated every 3 months in order to verify that all the following standards are continuously met by the hosts:

- Completed at least 10 trips;[2]

- Maintained a 50% review rate or higher;[3]

- Maintained a 90% response rate or higher;

- 0 cancellations;

- Received a 5-star review at least 80% of the time.

This superhost recognition allows the platform owner to exercise control over the highest performing hosts of the platform, but also works as an incentive to foster continuous improvement by those who seek that recognition. Indeed, the superhost award is a certification of quality that is beneficial for both the hosts and Airbnb, as it increases the potential bookings, thus, the potential earnings. Nonetheless it serves the role of a form of bureaucratic control that presents as an incentive system, but in reality, sets specific benchmark performance targets which are closely monitored and arguably exercise quite direct control over host activity, when the host chooses to subject themselves to this regime.

By the analysis of the case study host account it was possible to identify several control mechanisms that Airbnb uses to encourage specific behaviours by hosts, in particular, the improvement of their performance using performance indicators and comparing them with platform benchmarks. Already in the host's dashboard – a summary page with all the relevant information and updates for the host – there are notifications concerning how to improve performance, for example by making more dates available on the Calendar (Figure 7) or changing the price to make the listing more competitive. Of particular interest is the "hosting summary", which provides summary information about the performance of the host. While at first, these may appear to be somewhat more informal, supportive host control systems, they in fact emerge as formal bureaucratic controls. For example, because the case study host listing was not actively rented out, through the benchmark control reports provided by the platform, the case study host was made aware that he/she was poorly performing in comparison with average hosts. Indeed, a little pop-up window in the dashboard underlined: "Your performance has fallen below the average for hosts, and it's important to focus on improving it." Thus, the platform presents itself as providing decision-making information to the host, but employs this as an imposed set of performance benchmarks against which the host is evaluated and then prompted.

This is not the only mechanism tracking and controlling the host's performance that Airbnb implements to exert control over the hosts and encourage desired behaviour. Indeed, Airbnb provides more detailed statistics to each host regarding their hosting performance. This evidences the extent to which the platform exerts its authority over hosts through measurement, calculation benchmarks and surveillance. From their account, the host can access the

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[2] Trips in this context mean the conclusion of 10 transactions and related 10 stays by Airbnb guests.
[3] The rate is calculated as the number of reviews provided by guests after their stay and the total completed trips hosted by the host.

"Progress" page where performance indicators are provided relating to "Ratings", "Earnings", "Views" and "Opportunities". The first three categories show the statistics regarding the host's performance in terms of ratings received by the guests, earnings per month and listing views per month, respectively. The "Opportunities" board is different as it constitutes a mechanism aimed at encouraging maintenance or improvement of "hosting standards". Specifically, Airbnb lists aspects the host should "work on", by providing a comparison of the host's performance and a performance target which is said to be calculated from the average performance of all platform hosts. It is important to notice that in explaining how the target is calculated, Airbnb also emphasizes that "Your listing could be removed if you consistently fall below the targets". This demonstrates that despite publicly projecting an image of socialised and community governance and control, the platform relies heavily on a highly developed system of formal bureaucratic controls and associated reporting and sanction processes to control the behaviour of hosts. The case study host account was not regarded as performing satisfactorily by Airbnb, listing three areas to improve. In detail, the first area of concern was the overall rating of the listing, which was zero for the case study listing, which should have aimed for a benchmark of 4.8 stars. The second area was the response rate, which was 55%, when the desired rate was declared by Airbnb to be 98%. Finally, the cancellations per year should have been zero, whereas the case study host cancelled twice in 2017 (Figure 8).

The above areas reflect the basic bureaucratic control requirements to be met in order to avoid the suspension of the account. Although this "Opportunities" board is deemed to allow the hosts to keep track of their improvements towards the superhost status, with additional performance indicators and benchmarks being provided to the hosts (Figure 9), these metrics suggest that the superhost status may be considered an extension of the platform's bureaucratic control system. Although this is a voluntary recognition, and no suspension occurs if these targets are not met and maintained, the "superhost" benchmarks are provided to all hosts, regardless of their interest in this quality recognition.

Hosts' controls over Airbnb
The investigation reveals that, although limited, there are actions that hosts can undertake to prompt the behaviour from Airbnb that they would prefer, and therefore can be considered hosts' controls over the platform owner. Two types of formal control tools were identified within the platform that constitutes forms of control over Airbnb's behaviour. These are the resolution centre and the direct contact to Airbnb (via the platform contact tool). Indeed, these two devices allow the hosts to contact Airbnb and in addition to forward monetary requests. Specifically, the resolution centre allows the hosts to upload monetary requests for reimbursement or damages to be forwarded to the responsible guest by Airbnb, or to be dealt directly by Airbnb. This centre is also used to resolve monetary requests related to reimbursement, damages or cancellations that may be paid by the users or directly by Airbnb.

Another control mechanism is a contact tool for contacting Airbnb. While communications usually take place between guests and hosts in order to arrange the stay and conclude the transaction, there is no immediate way for them to contact the platform owner, which is responsible for the infrastructure and its functioning. The contact tool is created to offer the hosts (as well as guests) a means by which they can contact the platform owner. Our investigation reveals that the platform contact tool is set to filter the hosts' requests, so that direct contact with Airbnb is a last resort option for hosts. Indeed, the "Contact Airbnb" option is the last listed among the means for responding to hosts' questions or issues. And even when opting for "Contact Airbnb", the user is still asked to provide details about his/her question in order to be redirected to a FAQ page. Only if the question does not fall within the pre-set FAQ, can the user submit a query directly to Airbnb. Thus, what appears to be a potential control tool

available to hosts, through the platform's dominant decision partitioning, is in reality a formal bureaucratic control that controls and limits host communications with the platform.

As a result, the observation of these controls has shown that the controls implementable by hosts – and users in general – are limited not only in number, but also in direct access to Airbnb. Both the formal controls are set in order to force the hosts to autonomously find a solution without direct interaction with the platform owner. In the case of the resolution centre, the users settle directly with their counterpart, digitally mediated by the platform owner. Similarly, in the case of the Airbnb contact tool, hosts are invited to search for a solution to their problem among the information provided in the website and can contact directly Airbnb only if their request is very specific or complex, and if platform control rules allow.

6.2 Results from member checks

The analysis of the survey responses provides supporting insights into the netnography analysis of the Airbnb platform governance by reporting Airbnb hosts' perceptions about Airbnb hosting. Specifically, the responses provide insights into the use and understanding of the Airbnb performance indicators (i.e. hosting standards and superhost category) and how these metrics may affect the hosts' decisions as bureaucratic controls imposed by the platform owner. Moreover, they showed the hosts' perceptions of their role with respect to the platform owner. The surveyed sample was comprised of 60 hosts, distributed worldwide, who had been hosting on Airbnb for a median period of 24 weeks, with long experienced hosts that had hosted for as many as 120 weeks. Of the sample, 32% of the hosts had less than 1 year of experience, while the 42% had more than 2 years' experience. The median listing of the sample is one listing per host, however, 10% of the hosts have more than 3 listings and one host has 30 listings. Of the surveyed hosts, 60% have obtained the superhost status and 67% accept instant bookings from their potential guests (Table 1)

Insert Table 1 about here

The analysis of the responses also revealed the main motivations of hosts for joining the platform. The main driver that appears in almost every response is the economic motivation of gaining additional income by renting an underutilised property. This was quite common among all respondents, regardless of their level of experience on the platform. Other reasons for entering are less significant and usually are the social experience of sharing; the inexpensive access to the platform; the exposure to more guests; the ease of use and the control over the rented property. While additional income is mentioned by almost every surveyed host, the other reasons rarely appear to be the main driving ones. The second most important reason is the social experience of sharing. For instance, one host responded:

> "*Airbnb allows me to earn a contribution to my rent or mortgage on my own terms.*
> *I also like the idea of welcoming strangers to share my home as there is a lot of*
> *unnecessary fear in the world now*" (Host_10 – 32 months' experience).

However, the dominance of the economic motive, suggests that the platform's resort to predominantly formal bureaucratic controls and hosts' compliance, reflects that motivation rather than any declared interests in community building and socialisation by either platform or hosts. Indeed, the closest the arrangement comes to any aspect of clan control, might be via a shared platform and host objective of revenue raising in pursuit of their mutual economic objectives.

The survey confirmed the findings regarding the impacts of performance indicators and ratings (i.e. hosting standards) provided by Airbnb on the various hosts. The majority of the surveyed

hosts (87%), even those less experienced, declared that they check their ratings and indicators. A lower percentage of hosts (75%) actually meet the benchmark ratings, while the most and least experienced hosts are less concerned about meeting such standards. This is an interesting fact, if one cares to consider that the least experienced hosts admit that they are "still figuring that out" (Host_43 – 3 months' experience) with reference to KPIs. The majority of the most experienced hosts claim that they are using the Airbnb standards as a benchmark. However some admit that they "largely ignore them" (Host_57 – 72 months' experience) contending and demonstrating that they are less impacted by the pressure from the platform owner's KPIs. Of the surveyed hosts, 68% admitted that the impacts with respect to such standards often drive their hosting decisions such as listing availability or booking acceptance (Table 2). This again confirms the finding that performance measurement, benchmarks and monitoring by the platform are not only complied with by hosts but do appear to be used by the platform owner to exercise direct control over their behaviour.

Insert Table 2 about here

The survey showed that hosts exhibit slightly different ways of understanding the performance indicators as provided by Airbnb. In general, there is an implicit (if sometimes reluctant) acknowledgement of the platform's exercise of its authority and pre-eminent decision rights, and recognition that it is employing specific and at times demanding formal surveillance and performance monitoring controls. For example, our analysis reveals that hosts tend to use the performance indicators as benchmarks and to identify room for improvement in the hosting activity, regardless of their length of hosting experience:

> "*I do everything I can to create a wonderful experience for my guests. I give them what I would want and hope it reflects in my scores.*" (Host_27 – 6 months' experience)

> "*Vital! I want to see what my guests want and what I can do better for them. I hate to let them down.*" (Host_60 – 24 months' experience)

Some other hosts simply consider the hosting standards to be a measure of their performance and success on the platform and their ability as hosts, thereby still acknowledging the influence of platform bureaucratic control systems. For instance, a surveyed host depicts the hosting standards:

> "*As a measure of how well we are succeeding in our goal to be exemplary hosts*" (Host_50 – 72 months' experience).

However, the member checks reveal that some hosts are ignoring the hosting standards indicators. Nonetheless, in their responses there is a clear suggestion that such indicators are a form of control performed by Airbnb:

> "*Airbnb encourage and allow malicious reviews, hence given my performance on other platforms and my own website is 9.7/10, I disregard Airbnb, to the extent I am considering removing my listing from their platform.*" (Host_31 – 24 months' experience)

Again, implicitly acknowledging the platform's even more tightly specified formal control system – the superhost – surveyed hosts that are also superhosts (60%) are not finding any real advantage from obtaining the status and are simply expending additional effort to maintain it. This suggests how the superhost status and its requirements support the control system of the platform owner over its several users, from the least to the most experienced:

> "*You get a badge. Unless Airbnb can prove that this brings in more revenue I think it's a fake thing that hosts obsess over.*" (Host_7 – 11 months' experience)

"I do probably worry more about maintaining it (no cancellations, tip-toeing around guests)." (Host_27 – 6 months' experience)

"For me there isn't a huge advantage, my apartment is around 4.7 stars and gets a lot of bookings. To maintain the superhost status is very difficult with a high number of bookings required." (Host_30 – 36 months' experience)

"It's hard to say. Airbnb employees seem to do more ass kissing to superhosts, but it doesn't seem to increase bookings or guest quality." (Host_45 – 60 months' experience)

"Over the years I have been a superhost many times. The system is grossly unfair and penalises hosts whose listings are harder to book. I have 30 x 5 star reviews with 98% average. My home is located on land with an unfenced cliff edge and I don't allow children 12 and under for safety reasons." (Host_56 – 36 months' experience)

However, in exchange to this higher degree of controllability, superhosts acknowledged the presence of three advantages: greater visibility through search engine optimization leading to more bookings, an official certification of host high standards for guests, and a direct line to contact Airbnb. The superhost status might be seen as the platform's formal top-down continuous control system which in turn provides hosts with some augmented degree of both market control and bureaucratic control over their own hosting operations. This is especially felt by the most experienced hosts.

"Useful in that it implies a certain high standard of service and allows for greater visibility within the Airbnb search (to the forefront of the search page)." (Host_8 – 36 months' experience)

"(1) Supposedly superhosts direct phone, and (2) possible search optimisation by superhost." (Host_26 – 24 months' experience)

"(1) Priority customer service, (2) some extra bookings, (3) increase in search ranking visibility." (Host_35 – 48 months' experience)

"Dedicated access to Airbnb customer service and recognition to the traveller the host actually does care about their property and guest experience." (Host_48 – 24 months' experience)

In view of the limited controls over Airbnb that are available to hosts, it is clear why the direct contact that is provided to superhosts is highly regarded, as this attributes to hosts more potential control in trying to obtain desirable actions by Airbnb.

The survey also revealed hosts' perceptions of instant booking, which also provides insights about their opinions regarding the role of Airbnb. Instant booking is preferred by those hosts aiming at increasing bookings and at reducing the complexity of the booking procedure for themselves and the guests. This is valid for all levels of Airbnb host experience.

"I am sometimes offline at work and this allows for bookings without guests having to wait for a response." (Host_8 – 36 months' experience)

"It lowers the threshold for my customers and leads to less administration for me." (Host_22 – 4 months' experience)

"Instant book makes the whole process easier as you are not going into big conversations on email before accepting a guest." (Host_30 – 36 months' experience)

> *"The sooner they get through the process the sooner I get paid."* (Host_12 – 36 months' experience)

However, responses also highlight some concerns and pressures to instant book that are perceived by hosts, either for increasing their guest turnover or improving their visibility. Thus, hosts may feel the top down pressure of the platform's formal exercise of its centralised power over their hosting operations, and thereby override their own formal control preferences for evaluating potential guests, by opting for instant bookings in pursuit of favourable performance statistics being monitored by the platform. In these respects, the formal controls exercised by the platform can override the formal controls it has permitted the hosts to exercise. This is primarily recognised by the least experienced hosts, as a way to most effectively enter the market:

> *"I'm still new. Can't afford to be too picky and need the boost in search results."* (Host_43 – 3 months' experience)

> *"I hear it ranks you higher on search results that does give added value."* (Host_7 – 11 months' experience)

However, it is also recognised by more experienced hosts, who have accumulated knowledge and information around the topic:

> *"Airbnb pressures hosts to do so and it is well known among hosts that Airbnb algorithms rank properties who don't offer instant book significantly lower down in search results. Airbnb typically use these kinds of bullying and discriminatory tactics upon hosts to pressure compliance into that, which is detrimental to hosts but beneficial to Airbnb."* (Host_31 – 24 months' experience)

Some hosts reveal how Airbnb gives more visibility to those hosts who accept instant booking, thereby pressuring hosts to make additional efforts to host more guests. This they argue is to the sole advantage of the platform owner and not the host.

While hosts exhibited some diversity in perceptions regarding performance indicators and complaints about performance and control pressures from Airbnb, the survey reveals that the 97% of hosts deem they are managing their own business, as opposed to working for Airbnb (3%). Even those hosts who complained about Airbnb's pressures and "discriminatory tactics", responded that they are managing their own business. This suggests that despite being subject to quite detailed and arguably invasive bureaucratic controls, the hosts perceived themselves to be autonomous. Yet contradictory to this declared belief, it was apparent that hosts often check whether they are meeting the Airbnb targets, being a key to maintaining high visibility and hence increasing bookings. Although more bookings mean more additional income for the hosts, it also means higher profits for Airbnb. By providing hosting control standards and targets, Airbnb is achieving a two-fold aim: on one hand, it is maintaining a direct formal control over hosts' performance and profitability – with the possibility of deactivation in case of bad performance; on the other hand, Airbnb is aligning the hosts' objectives with the platform's objectives, by pressuring hosts to benchmark the ratings and targets from its control system as KPIs.

7. Discussion

The netnographic analysis of Airbnb has revealed the unique features of the governance and control system implemented by Airbnb, an emblematic case of sharing economy platform organisation. Using the categories of platform governance according to Tiwana et al. (2010), the analysis has identified how decision rights are partitioned between Airbnb and its hosts

with such rights being overwhelmingly in the platform's favour. It has also revealed how the platform owner formally controls its hosts and to very limited extent how hosts have some recourse to the platform. Also, the analysis of the responses from surveyed Airbnb hosts has provided further confirming evidence of the governance and control mechanisms that Airbnb employs to direct the myriads of hosts, whose activities are pivotal to sustain the value creation for the platform organisation. As it is for many other platform organisations, the hosts on Airbnb are the value creators while the platform owner (Airbnb) provides access to the platform and other technological features that facilitate transactions between distant users (Kornberger et al., 2017). As a result, the platform owner is faced with the challenge of governing a myriad of users who are autonomous and globally dispersed but upon whose activities the success (and profitability) of the platform depends. Our study finds that the platform owners are orienting their governance and control systems to align the individual objectives of their platform users (in this case, the Airbnb hosts) to the organisational objectives of the platform.

The analysis identifies that Airbnb hosts maintain autonomy of decision-making in four main areas: listing availability, pricing, booking process, and rules for the guest's stay. These are focussed on their own individual performance and not on platform operations and objectives. However, such host decision rights are key inputs to sustaining the platform performance and the profit of the platform owner. Thus, what appear to be host decision rights, are in essence yet again subject to and contributing to the platform owner's decision rights. We find this is reinforced by a series of formal bureaucratic control tools that track hosts and their platform activities by means of (big) data that are generated by the transactions, communications, ratings and reviews among users and recorded by Airbnb. This data is further transformed into control ratings and ratios that are used to measure the individual performance of each host. As a consequence, these indicators of performance provide Airbnb with crucial accounting control information that allows Airbnb to exercise its power to accept or exclude users and assess whether users' behaviours are aligned with the platform's performance objectives. The ultimate sanction available to the platform owner for controlling deviant host behaviour has been revealed to be the right to deactivate or shut down a host's account based on poor performance against control benchmarks, as demonstrated by the host account case study, which was signalled "at risk of deactivation" by the platform owner.

The analysis has also demonstrated that the platform owner delivers individual performance indicators to each host, the individual host KPIs being displayed on the host's personal account and compared with "targets", representing the average performance of the entire Airbnb platform. As confirmed also by the surveyed hosts, these formal control targets are interpreted as benchmarks by the hosts, who strive to bring their personal KPIs as close as possible to the Airbnb average performance. Regardless of their years of experience on the platform, the majority of the surveyed hosts admit to their usage of the host dashboard to improve their results and ratings. This demonstrates that despite hosts perceptions of themselves being self-employed and "empowered entrepreneurs", they are subject to the platform's top-down imposed controls exactly as if they were employees of the platform owner Accordingly they accept the platform's formally imposed controls (i.e. ratings provided by guests, response rate as calculated by Airbnb, etc.) and associated platform owner surveillance, and generally comply as required. However, most experienced hosts are showing greater acceptance of pressure to meet specified standards (i.e. Superhost), in order to access more effective controls over the platform owner (i.e. direct contact with Airbnb).

The analysis has also revealed that Airbnb, as part of its platform governance, implements a range of formal bureaucratic controls to foster required behaviours by the platform users. These controls take the form of data elaboration and calculative practices that provide visibility to the activities and behaviours of the hosts. Such technologies are essential to the platform owner's

agenda of exerting control over its thousands of platform users who are globally dispersed. While user-generated data in social media can be used to manage distant costumers because of their personal nature (Agostino & Sidorova, 2017), in the case of Airbnb, the data generated within the platform as the result of transactions, communications and reviews among users are used by the platform owner to control and direct the users towards the platform's objectives. In addition, the analysis also showed that some very limited control mechanisms are available to Airbnb hosts. These, however, do not permit much scope for them exercising any significant control or influence over the behaviour of the platform owner. What controls they do have available to them have been designed by the platform owner for their own business self-control, but again in the economic interests of the platform owner. In addition, while in online communities like Tripadvisor, calculations of rankings are found to increase accountability in the hospitality industry by making hotels and restaurants accountable to "the crowd" (Scott & Orlikowski, 2012), in the context of sharing economy platforms – and specifically Airbnb – ratings, reviews and other calculative practices make the crowd calculable and visible to the platform owner, who in turn can govern the entire platform by controlling and aligning the crowd's (e.g. hosts') objectives with the platform's objectives.

Finally, this study sheds light on the governance of sharing economy platforms and how different technologies based on accounting and performance data and calculations are implemented to exert formal bureaucratic control over a myriad of platform users who are physically distant from the centre of the platform. While they are granted a degree of autonomy in their platform activities by the platform owner, and are not constrained by any employment contract, they are nonetheless constrained by a detailed and demanding set of formal and centralised controls generated and governed by the platform owner. Although platforms are offering new business and work models, they are found to face problems of governance that are exponentially intensified by the myriad of users who are to be governed and controlled at a distance. However, these same new digital technologies that allow everyone to be part of the platform, have also exponentially increased the possibilities of generating data and developing calculations, indicators and estimates that are pivotal to producing the knowledge necessary to exert power over the platform and its users. As a result, when facing problematics of governance, even innovative organisational settings such as sharing economy digital platforms strongly rely on traditional technologies of governance, based on calculations and performance indicators.

8. Conclusions

This study has examined the governance and control mechanisms that are implemented in sharing economy platforms, by investigating Airbnb, an emblematic example of the sharing economy. While previous studies have considered other examples of digital platforms, and have focused on the accountability and auditing processes that develop through the use of user-generated reviews, ratings and rankings, this study has set out to shed light on the governance and control systems that are implemented in digital organisation settings, particularly in the sharing economy's asset sharing environment.

Using netnography analysis, the paper has investigated the governance and control systems of Airbnb primarily informed by Tiwana et al.'s (2010) model of platform governance, thereby revealing the decision rights partitioning and the controls between the platform owner and the hosts. Despite the sharing economy platform presenting itself as an innovative business model and promising users' autonomy, the analysis reveals that an array of calculative accounting control devices and technologies are implemented by the platform owner to govern the platform from a position of power and, as a result, to align the platform users with the

organisation's performance objectives. This study also sheds light on the wide array of formal and informal technologies of governance that are available for platform owners to exert formal bureaucratic control over platform users. who are, through the controls applied, required to comply with the platform's performance objectives. The study reveals hosts as being under pressure from the platform owner to achieve specific performance targets, for example through performance criteria and associated status recognition controls such as the superhost requirements. While the achievement of these targets may provide an increase in the economic benefits for the hosts, they also translate into an increment to associated profits for the platform owner, and hence are arguably primarily oriented towards the economic objectives of the platform owner.

What can be argued on the basis of the findings presented here, is that in a sharing economy environment, the digital platform and its stakeholders are often presented as being involved in a socialised community that engages in peer-to-peer relations and transactions. The platform itself can be represented as a technological facilitator of these relationships whereby host autonomy is empowered through market and self-control mechanisms, with stakeholders engaging in co-operative behaviours governed by their shared objectives and beliefs. However, this study reveals an alternative understanding of platform governance and control. Platform owner decision rights emerge as dominant, with platform owner power facilitating top-down authority-based governance by the platform owner in their own economic interests. While operating in a global market, the recourse to market-based control is largely subordinated to the platform's exercise of formal bureaucratic control largely via accounting based performance benchmarks. The role of socialised clan control appears to be minimal, with the economic objectives of platform owners and hosts, appearing to dominate any declared social objectives. While hosts may lay claims to be operating as autonomous businesses, the enactment of platform governance and their compliance with that system, reveals them to be submitting to controls as would normally be applied to organisational employees. In this environment, the recourse to controls by both platform owner and hosts appears to be predominantly through formal rather than informal controls or any packaging for formal and informal controls has been previously suggested emergent in entrepreneurial and/or internet organisations operating in rapidly changing marketplace environments.

Accordingly, this study contributes to the accounting and governance literature by providing insights into the use of accounting and management control practices in a new business context that is characterised by digitally mediated and globally dispersed actors in charge of the value creation process. Second, this study extends our knowledge of digital platform organisations by shedding light on the particular features of their governance systems and control mechanisms. Third, by drawing upon an analytical model of platform governance imported from information technology and management control literatures, this study demonstrates that in combination with accounting research, allied disciplines can provide useful contributions to the development of governance research in the digital environment. Finally, by revealing the use of traditional governance and control mechanisms based on calculations, performance indicators and performance assessments, it questions the promise of the sharing economy to deliver an alternative capitalism, where ordinary people are empowered and in control of their activities and decisions. Rather, it suggests that our existing stock of governance and control concepts are capable of employment in this new business environment, both to the advantage and disadvantage of stakeholders involved.

In conclusion, this study opens up to a new area of research in accounting and governance. The sharing economy is only at its early stage of development, but sharing economy initiatives are growing at a fast pace globally, involving more and more people, as well as producing more and more disruption on traditional sectors. In consideration of such economic and social

impacts, as well as other related issues, such as taxation, sustainability, performance measurement, employment, auditing, this new phenomenon demands research and policymakers' attention.

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Appendix 1

Q1	How long have you been hosting on Airbnb?	Closed-end question (numeric)
Q2	How many properties do you rent out via Airbnb?	Closed-end question (numeric)
Q3	Why did you choose to rent out your property via Airbnb? (you may list up to 2 reasons)	Open-end question
Q4	On your host account, there are several indicators and rates related to your performance ("Standards"), do you check them?	Closed-end question
Q5	How do you use/interpret these ratings and indicators?	Open-end question
Q6	Are you currently meeting the Airbnb hosting standards with your listing?	Closed-end question
Q7	Do you take your hosting standard rates and their possible change into consideration when accepting bookings, making cancellations and/or responding to a guest request?	Open-end question
Q8	Are you a "superhost"?	Closed-end question
Q9A	If you answered Yes to the previous question, what advantages (or disadvantages) may the "superhost" recognition give you?	Open-end question
Q9B	If you answered No to Question 11, what strategies are you putting in place to become a superhost? (you can list up to 2 strategies)	Open-end question
Q10	Do you Instant book?	Closed-end question
Q11	Why do you choose so?	Open-end question
Q12	In your experience with Airbnb hosting, would you say you are managing your own business on Airbnb or you are working for Airbnb?	Closed-end question