Relational Governance Mechanisms and Uncertainties in Nonownership Services

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ABSTRACT

Entrepreneurs, managers, and consumers are attracted by the promise of nonownership services in the sharing economy—to enjoy benefits of assets without bearing the costs and downsides of ownership. Firms using nonownership contracts aim to transform uncertainties of clients (e.g., unpredictable changes in value of that asset, unforeseen costs such as repairs, or even black swan events) into business opportunities for providers. In many cases, the reality is that nonownership does not live up to the promised value propositions (as present in the struggle of companies such as Uber, BP, or the entire Biopharma industry) to exploit the potential of nonownership. This paper unveils the underlying paradox of nonownership, which aims at a smart allocation of uncertainty upsides and downsides between providers and clients. It identifies the potential of relational governance mechanisms to handle the uncertainty challenges apparent in nonownership. Further, it presents a pioneering case study of Rolls-Royce airplane engines, which unveils the contribution of relational governance in unfolding the economic benefits of nonownership. © 2016 Wiley Periodicals, Inc.

NONOWNERSHIP—A VALUE PROPOSITION BUILT ON A PARADOX

The rise of new business models such as the sharing economy (The Economist, 2013) or industrial services (Dachs et al., 2014) indicates that customers relish obtaining benefits without buying ownership titles for assets to produce these benefits. Many businesses and consumers value the option to rent or lease assets such as cars, property, or machines, and enjoy performance and benefits without the need to buy them.

While a growing range of businesses aim to benefit from nonownership offerings, for some companies, it is mixed experiences. In the sharing economy, platforms such as Uber or AirBNB find themselves in legal and public relations battles between clients who feel ill serviced and providers who find their property damaged if not destroyed by clients (The Economist, 2014). In B2B networks, seemingly efficient nonownership arrangements frequently dissolve into legal battles. Take for example an oil spill of the Deepwater Horizon platform causing widespread pollution in the Gulf of Mexico and its shores. While the damage happened in a network of outsourced companies, BP was held accountable and eventually had to agree to pay US$18.1 billion to U.S. administrations, companies, and citizens (Borchardt, 2010; The Economist, 2015).

The paper argues that the value proposition of nonownership is built on a paradox: While nonownership contracts come with the promise to allocate upsides and downsides of ownership between clients and providers, benefits and costs of ownership are uncertain and thereby to some extent unpredictable. Uncertainty bears potential conflict for providers and clients with the potential to damage service performance if not to invoke the complete dissolution of the client–provider relationship. Several authors have highlighted the role of trust as a complement to contracts, furnishing parties to collaborate and solve potential conflicts in the face of uncertainty. The paper draws on relational contracting theory in order to identify social governance mechanisms that furnish contracting parties to realize the potential of nonownership.
This paper contributes to marketing research in the following ways. First, it identifies the role of uncertainty as a force driving nonownership value. Second, it proposes relational governance mechanisms that strengthen capabilities of managers to handle uncertainty in nonownership services and thereby empower parties to unlock value propositions of nonownership. Finally, the study extends existing contributions on relational governance toward its potential for handling economic uncertainties.

The paper is structured as follows: The first section sets the scene by elaborating the role of ownership for handling uncertainty and teases out value propositions of nonownership contracts proposed by economic theories. It then presents the challenges and limitations of nonownership, due to the principal limitations of contracts in the face of uncertainty. The following section discusses the potential of relational governance to address the limitations of contracting and to moderate the downsides of nonownership contracts. Then, it elaborates the potential contributions of relational governance modes. A case study of Rolls-Royce airplane engines illustrates the role of relational governance. Finally, the paper presents research opportunities and a conclusion.

NONOWNERSHIP, THE RISE OF THE SERVICE ECONOMY AND ITS LIMITATIONS

Taking a closer look, nonownership is anything but a recent phenomenon. For long, some researchers have conceived nonownership as a signature attribute of services (see Judd, 1964; Lovelock & Gummesson, 2004, Rathmell, 1966). Regarding assets such as cars, property, or machines, transfer of ownership draws the fine line between a goods business and a service business. In a goods business, the seller transfers ownership of the asset to the buyer; whereas in service businesses clients enjoy the benefits from a service operation without acquiring an ownership title (Ehret & Wirtz, 2010; Lovelock & Gummesson, 2004). Thus, several academic researchers have suggested nonownership as a key criterion for defining services. Indeed, economic statisticians are using nonownership as the defining characteristic for service industries (Eurostat, 2009; Jones, 2013). For example, Eurostat defines services as follows: “Service products are entities over which ownership rights cannot be established. They cannot be traded separately from their production” (Eurostat, 2009, p. 2).

In that light, the economic growth of service industries indicates that nonownership has become the dominant mode of value delivery in developed economies, where service industries provide 60% to 90% of economic value added (OECD, 2008). The U.S. economy shows some typical features of the rise of service industries: The service sector has been growing continuously, had reached almost 60% of GDP as early as 1947 and contributes now around 80% of the gross domestic product of the United States (see Figure 1).

One key driver is the demand for business services, as apparent in the role of business and professional services in the growth of the service sector (see Figure 2 and OECD, 2008; Triplett & Bosworth, 2003; Woelfl, 2005). On the economy level, companies have raised the share of services while reducing the share of goods in their external sourcing, as measured by the share of service industries in economy-wide intermediate inputs for value creation. The composition of the service sector has changed significantly over time (see Figure 3). While the share of wholesale, retail, and transport industries declined over the years, educational and social services as well as professional and business services have shown the highest growth of service industries (see Table 1).

Both phenomena seem to reflect an underlying trend of specialization, where investment into human capabilities translates into specialized professional services (see Buera & Kabowsky, 2012). It also resembles the prominent role of business and professional services in the rise of the service economy, as evident in numerous empirical studies (OECD, 2008; Woelfl, 2005). But what appears as a long-term megatrend confronts researchers and managers with nontrivial challenges. Nonownership services bear the promise to relieve clients from costs and burdens of ownership. By renting, hiring, or leasing an asset, clients get access to its benefits and performance but can avoid downsides of ownership such as market obsolescence, technological obsolescence, monitoring or measurement costs, and many more (Lovelock & Gummesson, 2004; Wittkowski, Moeller, & Wirtz, 2013).

At the core of the nonownership, value proposition is the nonownership contract. This contract entitles clients to the benefits generated with that asset that is owned by the service provider. The service provider...
thereby relieves clients from the costs of ownership and gains the right to capitalize profits of asset operation. Thus, for many companies it becomes attractive to use nonownership contracts to get the benefits of assets and to delegate ownership to specialized providers (Ehret & Wirtz, 2010; Lovelock & Gummesson, 2004; Wittkowski et al., 2013). This allows buyers of nonownership services to use their scarce resources and management capabilities on their most promising business opportunities and outsource noncore assets, their related activities and uncertainties (Ndubisi, 2011, 2013).

Nonownership services have been transforming a number of industries, including cloud computing where service providers own infrastructures for delivering IT services; industrial markets, where equipment manufacturers maintain ownership of machines, production lines, and even entire plants in order to sell performance to industrial client; and biopharma markets, where biotechnology firms take ownership of the
intellectual property and the uncertainty underlying drug development and offer technology licenses to pharmaceutical companies whose focus and core competencies lie in the downstream commercialization of drugs (Pisano, 2006).

However, there are numerous examples where nonownership contracts failed to deliver the expected benefits. The biopharma industry was built on the assumption that biotechnology companies drive up R&D productivity by taking on ownership for drug development and the resulting patents. Then, licenses were provided to pharmaceutical companies who would commercialize these drugs. Employing nonownership, pharmaceutical companies hoped to boost their R&D productivity and rebuild their vanishing drug pipeline. Industry reports and academic studies provide evidence that the biopharma industry failed to create value from these nonownership arrangements particularly in the last decade. One particular reason is that the R&D process of drug development is volatile and unanticipated results undermine the logic underlying the contractual arrangement. For example, if results of clinical testing may change the type of treatment the drug will be used for, it might not fit to drug portfolio and sales capabilities of the pharmaceutical company. Eventually the pharmaceutical company ends up with a drug that generates less value than the firm hoped for when closing the licensing contract (Ernst & Young, 2013; Pisano, 2006).

Unanticipated change in the macroenvironment may undermine the value propositions of nonownership contracts. At times, some industries reverse the trend of increased outsourcing. For example, while the automotive industry had driven up the share of external sourcing, it reversed outsourcing partly following the post-2007 crisis. One crucial factor was the overcapacity effect of weakening demand, driving manufacturers to maintain their capacity by reducing external sourcing (Drauz, 2014). In the IT industry, technological changes frequently lead companies to revise their sourcing strategies (Drauz, 2014; Lacity, Willcocks, & Feeny, 1995).

Not least, black swan events, that is events with extreme low probabilities but high potential damage (Taleb, 2007), can undermine the economics of nonownership. For example, it did not help BP that it outsourced the operation of the Deepwater Horizon drill to a network of companies led by Transocean. Transocean was the legal responsible operator of the drilling. When the platform exploded, 11 workers died and 4.9 million barrels of oil spilled into the Gulf of Mexico, poisoning fishing and seafood waters, spoiling seashores, and halting the major share of seafront businesses. BP was held legally accountable for the damage (Borchardt, 2010). Its nonownership contracts did not hold and did not protect it from claim damages. As a result, BP became the public face associated with the disaster and had to take the bulk of the financial responsibility for cleaning the sea and the coast and compensating businesses. Furthermore, BP took a hit on its brand reputation and potential higher political and legal barriers of future oil drilling operations and not least had to stand in for a total of US$18.1 billion for the damage that took place under the auspices of its service providers (Borchardt, 2010; Elkind, Whitford, & Burke, 2011; The Economist, 2015).

These examples illustrate the conditions and limitations facing companies that aim to exploit the potential of nonownership services. They can be summarized as follows: First, as in the case of biopharma, uncertainty may undermine benefits of nonownership arrangements. In such cases, partners need to look for change in their contracts (Pisano, 2006). Second, as seen in the automotive-outsourcing example, value propositions of nonownership contracts may be undermined by rapid changes of strategic contexts of providers and clients, thereby deteriorating the benefits for one if not all parties. Third, black swan events illustrate the general challenge underlying nonownership contracts. Ownership and respective nonownership arrangements entail responsibility for all types of uncertainty, including radical uncertainties, therefore they expose contracting parties to conflicts resulting from negative surprises.

These examples show different facets of the phenomenon of incomplete contracts that applies to nonownership. Incomplete contracts face limitations of parties to find ex ante solutions for ex post potential conflicts in the future collaboration (Ghosh & John, 1999; Jap & Anderson, 2007; Jap & Ganesan, 2000). Relational contracting theory holds that incomplete contracts need to be complemented by relational governance mechanisms that create the "atmosphere" (MacNeil, 1978) in which contracts become effective (Ivens & Blois, 2004; Jap & Anderson, 2007; MacNeil, 1978). While there is extant research on the contribution of relational governance in the context of interorganizational relationships (e.g., Ndubisi, 2011), governance of the emerging phenomenon of nonownership remains neglected.

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**Table 1. Growth Index for U.S. Service Industries 1947–2013.**

<table>
<thead>
<tr>
<th>Service Industry</th>
<th>Relative Growth Between 1947 and 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale trade</td>
<td>0.67</td>
</tr>
<tr>
<td>Retail trade</td>
<td>0.44</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>0.36</td>
</tr>
<tr>
<td>Information</td>
<td>1.17</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>2.14</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>1.14</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>2.55</td>
</tr>
<tr>
<td>Educational services, health care,</td>
<td>3.08</td>
</tr>
<tr>
<td>and social assistance</td>
<td></td>
</tr>
<tr>
<td>Arts, entertainment, recreation,</td>
<td>0.80</td>
</tr>
<tr>
<td>accommodation, and food services</td>
<td></td>
</tr>
<tr>
<td>Other services, except government</td>
<td>0.51</td>
</tr>
</tbody>
</table>

*Note: Levels above 1 indicate higher share within the service sector, values below indicate a reduced share within the services sector.*
ECONOMIC THEORIES AND NONOWNERSHIP VALUE

Uncertainty and the Value of Ownership

Nonownership value can be traced back to the up- and downsides of ownership for dealing with uncertainty. Knight (1921) introduced the concept of uncertainty into economic thinking by distinguishing between genuine uncertainty (in the literature referred as “Knightian” uncertainty) and risk. While the major share of the future is unpredictable, some events follow a pattern that can be estimated with the help of statistics and extrapolation of probability calculations as practiced in insurance business models. In contrast, Knightian uncertainty entails a domain of the future that cannot be estimated with statistical approaches and holds genuine surprise for decision makers (Foss, Foss, & Klein, 2007; Knight, 1921; Ndubisi, Malhotra, Ulas, & Ndubisi, 2012; Taleb, 2007). Business activity takes place under conditions of uncertainty, holding both opportunities and downsides for market participants. While business activity and related contracting partly succeeds in mastering or reducing uncertainty, it can never be totally eliminated (Harper, 2003, 2008; Ndubisi et al., 2012).

Uncertainty is the common denominator of ownership-driven value propositions identified by property rights theories as well as entrepreneurship theory (Barzel, 1987, 1997). First, property rights theory elucidates the governance dimension of ownership. Property rights theory holds that ownership reduces the cost of writing contracts (Coase, 1960; Ghosh & John, 1999; Grossman & Hart, 1986). Such costs arise under uncertainty, when contracting parties face difficulties in determining the value of an exchange. In absence of uncertainty, resource users are able to specify rights according to their resource needs and negotiate contracts that reflect their valuation (Coase, 1960). Ownership simplifies contracting as it allocates all rights not specified in a contract to the owner who bears uncertainties of the owned assets. The owner enjoys an incentive to bear potential downsides, as ownership entitles him/her to potential profits. While users abandon the profit potential entailed in asset ownership, they also reduce their exposure to the downsides of ownership-related uncertainties. Typical rights codified in such contracts are the right to use a resource (e.g., renting a car or a machine), change it (e.g., extend performance of a machine), earn income with it (e.g., commercial property), or transfer ownership (e.g., a retailer commissioning for a manufacturer; Furubotn & Pejovich, 1972).

While entrepreneurship theory partly overlaps with property rights theory, it assumes the entrepreneurship process of exploring and exploiting business opportunities as the crucial force shaping the benefits and costs of ownership (Barzel, 1987, 1997; Nooteboom, 1992, 1993). Ownership rights empower entrepreneurs to experiment with resources and new resource combinations, and thereby explore business opportunities. Thus, the key question for an entrepreneur is if the asset opens the door toward business opportunities or is the key to claim the profit from a business project (Foss et al., 2007; Kirzner, 1997; Knight, 1921; Shane & Venkataraman, 2000). Empowered with the right to claim the residual income from their business project, entrepreneurs can capitalize opportunities into profits.

Business opportunities arise under conditions of uncertainty, when resources show potential that is currently not exploited in the market place or customers show needs that are not addressed well by current market offerings (Kirzner, 1997; Shane & Venkataraman, 2000). Business projects aiming to explore and exploit such opportunities open up the option for profit but also hold the potential downside of loss. From an entrepreneurial perspective, companies should refrain from owning assets that do contribute neither to exploration nor to exploitation of business opportunities.

Nonownership and the Allocation of Uncertainty Exposure

Nonownership contracts are instrumental in defining and trading services generated with the help of productive assets for which ownership rights can be established. The contract assigns the provider the role of the owner of assets that are applied for generating the service outcome. For clients, the nonownership contracts defines the service outcomes they are entitled to as well as the terms under which clients can use the service outcomes, that is, rental, access, or service fees (Ehret & Wirtz, 2010; Lovelock & Gummesson, 2004). This allocation of titles and rights has substantial implications for the exposure of providers and clients to economic uncertainty. Providers bear the financial uncertainty of asset ownership, which can turn into profit as well as loss. Providers also enjoy authority over their owned assets as far as this is not specified in other contracts or limited by the law. This empowers providers to experiment with novel uses for assets, explore novel resource combination and not least, identify and commercialize services for commercial trade. In exchange, nonownership contracts are instrumental in monetizing assets owned by the provider, thereby reducing some share of financial uncertainty. In absence of the deal with the service client, providers would need to search and consider other options for capitalizing their assets, thereby increase financial uncertainty and possibly requiring needs for additional investments.

By the same token, clients delegate uncertainty of asset ownership to service providers. However, their entitlement for service outputs and performance provides a resource for their own value creating activities. That is, nonownership value resides on the smart distribution of the up- and downsides of ownership and output across cocreating firms (Ballantyne & Varey, 2008; Vargo & Lusch, 2004). The following sections discuss
value propositions driven by uncertainty asymmetries using three related economic theories of the firm.

**Property Rights Theory—Contracting Efficiency**

Property rights theory provides a theoretical explanation for the role of uncertainty in value creation of nonownership services. Ownership becomes valuable when a company resides on specific, difficult to substitute assets for its value creation. External sourcing would be detrimental because of potential hold-up (i.e., value extortion) by suppliers aiming to redistribute profits to their favor (Grossman & Hart, 1986). Once the asset loses its specificity character, the case for ownership diminishes, favoring sourcing by external suppliers.

For example, pioneers of automated manufacturing may enjoy a competitive advantage over their competitors rendering the equipment specific. When competitors copy the process, the specificity character diminishes, eventually rendering the equipment a commodity. In this situation, opportunistic hold-up can be controlled due to competition of many suppliers in the market. Eventually, external sourcing becomes the favored solution. Such situations open an opportunity for suppliers willing to take on ownership, thereby reducing uncertainty for their clients, supporting their clients to optimize their ownership structure while gaining profit opportunities on their own. In sum, as soon as potential clients are able to specify their service needs from assets, it becomes valuable for providers to assume asset ownership and economize the costs of ownership for the benefit of their clients (Grossman & Hart, 1986).

**Resource-based View: Management Productivity**

The resource-based view (RBV) holds that a company's ability to exploit business opportunities is constrained by its managerial capacity. Business opportunities are uncertain and reside on idiosyncratic insights, ideas or perceptions of entrepreneurs for value propositions. In early stages of the exploration and exploitation of opportunities, markets have not yet established valid valuations of such business ideas, which renders ventures uncertain. The RBV advises management to prioritize its energy on uncertain elements of value creation and the development of unique, hard-to-imitate resources (Barney, 1986; Penrose, 1956; Wernerfelt, 1984). In order to unlock scarce management capacity, the firm should use external sources for the comparatively "certain" domain of the value creation process in order to unlock its management to focus on business opportunities, which are genuinely uncertain.

The vision of RBV is the intelligent enterprise that unlocks its management capacity for the pursuit of the most promising and profitable business opportunities, while delegating complementary activities to a network of external service providers (Ehret & Wirtz, 2010; Quinn, 1992). Accordingly, companies should design their boundaries in order to focus on their core competencies and important business opportunities. As such, RBV contributes to explain the rising importance of business services by highlighting managerial capabilities as a crucial factor that limits a firm's growth opportunities. RBV provides a compelling argument for nonownership services to empower the management of client companies to focus on their most promising activities by releasing them from noncore responsibilities.

From an RBV perspective, nonownership value arises when two companies hold asymmetric management productivities in relation to the ownership of a resource. For example, the market for IT outsourcing services started to emerge once user companies struggled to differentiate themselves through self-managed IT infrastructure. In contrast, specialized IT service providers experienced an opportunity by specializing on owning and operating IT resources, providing the key value proposition by relieving their clients from the burdens of ownership (Lacity et al., 1995). Thus, nonownership value emerges when companies hold asymmetric perceptions of opportunities from specialization, where one company aims to specialize on a domain that the other considers as noncore.

**Entrepreneurial Theory of the Firm: Complementary Business Opportunities**

From an entrepreneurial perspective, nonownership contracts empower companies to capitalize on mutually dependent business opportunities (Chesbrough, 2011; Foss et al., 2007). Typical examples are nonownership service providers acting as entrepreneurs of upstream supply chains, while their clients take on the role of entrepreneurs of downstream distribution channels (Ghosh & John, 2009), technology providers focusing on R&D for technology discovery, catering to technology users focusing on commercializing technology (Arora, Belenzon, & Rios, 2014), or platform companies distributing software owned by software design-houses (Chesbrough, 2011). In these examples, business opportunities are in part dependent on how successful collaborating organizations are, as well as their capacity to create attractive rewards for each partnering firm that justifies continuing the collaboration. In the design of business models, companies aim to share uncertainties in a way that maximizes upsides and/or minimizes downsides of business opportunities across a network. This partly overlaps with contracting and resource efficiencies. However, complementary business opportunities relate to a more orchestrated approach based on the purposeful design of business architectures that combine particular strengths of companies in line with business opportunities (Chesbrough, 2011; Wirtz & Ehret, 2013).
Summary: Nonownership and the Allocation of Entrepreneurial Roles in Value Creation

To summarize, the major value contribution of nonownership contracts is the allocation of up- and downsides of uncertainty of value creation between the service provider and the service client (see Figure 4). A crucial value proposition of nonownership contracts is the potential to strengthen contracting parties to focus on specific entrepreneurial opportunities, related to service assets or the use of service outputs. By assuming ownership and related costs of asset operation, owners become de facto entrepreneurs of service assets. The economic fortune of providers depends on their ability to identify and implement the highest-valued uses of their assets. Thus, entrepreneurial focus of providers resides on identifying valuable services from assets, identifying potential clients and ensuring a high value of asset utilization, that is, by ensuring high added value by services as well as enforcing high degree of capacity utilization. In contrast, business fortune of clients resides on their ability to use service outputs as part of their value creation processes. In a value chain perspective, providers focus rather upstream, clients rather downstream.

Economic theories of the firm illustrate various dimensions of the entrepreneurial roles and their implications for uncertainty impact on service businesses. Property rights theory highlights the role of asset specificity, as providers bear costs of asset ownership for the benefit of their clients. The RBV highlights the potential for improved management focus, as nonownership contracts unlock management capacity of the client that can be used for strategic priorities further downstream. From the perspective of entrepreneurship theory, the core contribution of nonownership contracts is to open up business opportunities for asset operation and thereby support specialization of entrepreneurial activities.

In nonownership services, providers take on uncertainties for the benefit for their clients, thereby getting an opportunity to generate profits. The key condition for nonownership value is that companies hold asymmetric perceptions regarding the uncertainties of the use of a resource (see Table 2).

Economic theories provide a strong rationale that nonownership contracts unlock value for both clients and providers. The following section investigates the conceptual limitation of nonownership contracts to realize their promised value proposition and explore the potential contribution of relational governance mechanisms.

THE PARADOX OF NONOWNERSHIP

Value propositions of nonownership contracts build on a smart allocation of ownership rights transforming uncertainty downsides (i.e., risks) of the client into profit opportunities for the provider. However, nonownership contracts entail a paradox: Ownership gains its value precisely because of the limitations of contracting under conditions of uncertainty (Coase, 1960; Ghosh & John, 1999; Jap & Anderson, 2007). Uncertainty entails elements of genuine surprise up to the dimension of black swan events that appear highly improbable but bear high negative outcomes (Knight, 1921; Taleb, 2007). Contracting parties face genuine limitations to anticipate such events and to develop mutually satisfying contractual solutions (Ghosh & John, 1999; Jap & Anderson, 2007).

Furthermore, the smart allocation of nonownership creates mutual dependencies for both parties (Ghosh & John, 1999; Jap & Anderson, 2007; Ndubisi, 2013), such as upstream performance of R&D on downstream
performance of commercialization, supply-chain performance on distribution-channel performance, and indivisible processes communication interfaces shared by client and provider. To the extent that nonownership services aim for the long term, clients and providers are exposed to negative surprises caused by uncertain events. Contracts bear the dilemma that ex ante estimation of future conflicts of nonownership parties is costly if not unfeasible (Ghosh & John, 1999; Grossman & Hart, 1986; Jap & Ganesan, 2000). Uncertainty implies costs as well as pressure on nonownership partnerships to the extent of eventual breakup. In particular, the principal limitations of contracts limit the value propositions of nonownership implied by economic theories (see Table 1):

- **Contractual uncertainties impede contracting efficiency**: Nonownership services may entail the investments of resources for the exclusive use in the client–provider relationship that lose value outside this relationship, such as communication interfaces, specialized employees such as key account managers, or special equipment such as customized manufacturing plants. Such relationship-specific investments expose partners to hold-up and opportunism (Fang, Palmatier, Scheer, & Li, 2008; Ndubisi, 2011, 2013; Williamson, 1985).

- **Resource uncertainties jeopardize management productivity**: Nonownership services reside on both, client and provider, specializing on particular domains of the value creation process. Specialization creates coordination problems as both provider and client aim to develop hard-to-imitate resources and processes. Due to the uniqueness of specialized resources, knowledge of those resources cannot easily be codified and transmitted by the means of information technologies, rendering it the character of “tacit” knowledge (Nonaka, 1994; Polanyi, 1983). Ensuring service performance relies on interoperability of processes and resources of providers and clients, for example, synchronizing providers’ outbound logistics with clients’ inbound logistics, or technology providers’ basic research with the clients’ product development. As tacit knowledge is difficult to codify, contracts face a limitation in coordinating clients and providers.

- **Business uncertainties diminish complementary business opportunities**: Complementary business opportunities reside on the expectation of both, the client and the provider that their business opportunities have mutual positive impact. (Arora et al., 2014; Chesbrough, 2011). Identifying joint opportunities is not trivial and goes beyond codified information used for writing contracts. In addition, expectations entail uncertainties and the chance of failure, making contracts potentially inefficient. For example, one limitation of the performance of partnerships between biotechnology and pharmaceutical firms is that drugs developed by biotechnology firms proof useful for treatments of different treatments than originally expected. As a consequence, the licenses of their pharmaceutical partners proof less valuable than originally expected (Ernst & Young, 2013; Pisano, 2006).

These uncertainty challenges present a potential limitation to the employment of nonownership services.

**Table 2. Nonownership Contracts and the Allocation of Entrepreneurial Roles.**

<table>
<thead>
<tr>
<th>Types of Uncertainty Asymmetries</th>
<th>Provider (Owner)</th>
<th>Client (Nonowner)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial role in the service process</td>
<td>Entrepreneur of service assets</td>
<td>Entrepreneur of service outcomes</td>
</tr>
<tr>
<td>Asset utilization</td>
<td>Create outputs from assets (e.g., airplane engine)</td>
<td>Use asset outputs as inputs for business operation (e.g., airline)</td>
</tr>
<tr>
<td>Orientation in value chain</td>
<td>Upstream</td>
<td>Downstream</td>
</tr>
<tr>
<td>Scope of entrepreneurial activity</td>
<td>Asset operation</td>
<td>Asset exploitation</td>
</tr>
<tr>
<td>Role in technology commercialization</td>
<td>Technology exploration</td>
<td>Technology exploitation</td>
</tr>
</tbody>
</table>

**RESOLVING THE NONOWNERSHIP PARADOX**

**Complements to Relational Contracts for Handling Uncertainty**

Nonownership contracts hold a paradox. The institution of ownership emerged as a response to the limitations of written contracts in aligning interests. Relational contract theory holds that written contracts become effective as an element of a more complex set of social arrangements to orchestrate activities, align interests, and resolve conflicts. The reasoning in the prior paragraphs applies to rational choice scenarios projected in classical contract theory that assumes that contracts are optimal bargaining solutions under sufficient information (Ehret & Haase, 2012; MacNeil, 1978). However, relational contracting theory conceives contracts as elements of relationships, and instruments of collaborating parties to take on opportunities through collaboration. As a consequence, relational contracting theory conceives the impact of relational governance norms that work beyond the written agreement and provide the social context for its performance. In essence, relational contracting theory assumes that contracts become effective through a social environment that makes incentives and sanctions effective (Ehret & Haase, 2012; Ivens & Blois, 2004; Macneil 1978).
Relationship Quality: Trust and Commitment

The following section extends research on relational governance mechanisms to their potential contribution to handle uncertainties. It builds on the MacNeil’s general proposition that the relationship atmosphere shows an impact on the performance of contracts (see Figure 4). In the context of nonownership, relational governance mechanisms help providers and clients to address conflicts beyond the limited framework of contracts. Thus, relational governance complements contractual governance through the formation of trust and commitment.

Relational governance takes place when cocreating parties maintain social relationships for long-term gains, and accept and tolerate short-term sacrifices. This makes commitment, where partners invest in order to maintain a relationship, the core characteristic of a relationship (Moorman, Deshpandé, & Zaltman, 1993; Morgan & Hunt, 1994). Trust is the other core governance mechanism shaping interorganizational relationships (Morgan & Hunt, 1994; Ndubisi, 2011). Marketing conceives trust as a key enabler of relational exchanges beyond pure “goods for money” transactions (Boulding, Staelin, Ehret, & Johnston, 2005). Accordingly, marketing has adopted a relational concept of trust as “a willingness to rely on an exchange partner in whom one has confidence” (Moorman et al., 1993). Social sciences ground theories on trust in its potential to transform uncertainty in social relationships. This goes in hand with a broader understanding of trust that conventionally is used in marketing. “Trust (Vertrauen), in broadest sense of confidence in one’s expectations, is a basic fact of social life. In many situations, of course, man can choose in certain respects whether or not to bestow trust. But a complete absence of trust would prevent him even from getting up in the morning” (Luhmann, 1979, p. 4).

This makes trust crucial in situations where information is incomplete or costly, enabling decision makers to act and unlock resources (Gigerenzer & ABC Research Group, 1999; Möllering, 2001; Simmel, 1990). Trust becomes particularly valuable in the context of nonownership contracts, as core value propositions of nonownership are driven by uncertainty. Trust empowers providers and clients of nonownership services to face uncertainties beyond the pure contractual level (Botsman & Rogers, 2010; Fang et al., 2008; Luhmann, 1979).

Relational Governance in the Context of Nonownership

There is a rich body of research that shows both rationale and evidence for the contribution of relational norms to the quality and performance of interorganizational relationships. As discussed in the previous section, nonownership contracts come with particular challenges for providers and clients. First, left to their own terms contracts come with limitations to allocate uncertainties, as providers and clients are unable to anticipate significant events with negative downsides for one or all parties. In addition, nonownership is built on a seemingly smart configuration of asymmetries, as asset ownership tends to imply particular business orientations, such as upstream focus, exploration of asset technology potential or more general maximization of asset value, whereas clients benefit from focus on service outputs, thus exploiting technologies and targeting downstream markets.

Relational contracting theory holds that relational governance mechanisms complement written contracts in aligning interests of economic actors. Thus, relational governance mechanisms empower clients and providers to transform uncertainties through social interaction and resolve conflicts from downside uncertainties. In the following section, the specific relationship challenges arising in nonownership relationships and the potential contribution of relational governance approaches for resolving these conflicts are discussed.

Communication

In nonownership services providers’ assets constitute the platform for service benefits for the clients’ value chain. Thus, nonownership services tie provider assets to client processes. Information is crucial to link asset outputs to client requirements. This makes communication and information sharing an essential element of nonownership services. Relationship marketing research frequently identifies communication as a factor with positive impact on trust and commitment to relationship partners. Relationship communication is defined as the sharing of information between supplier and customer (Jap & Anderson, 2007; Ndubisi et al., 2012). With regard to uncertainty, communication supports an understanding of interests, motives, as well as a means to coordinate activities of clients and providers. In the early stages of a nonownership relationship, communication of references and reputation helps to reduce uncertainty of the trustworthiness of a potential relationship partner (Jap & Anderson, 2007). During the relationship, effective communication reduces uncertainty regarding actual service performance. In the case of industrial nonownership services, information sharing such as real-time information on machine or plant performance enabled by sensors and internet technologies have been key features of nonownership services created around manufacturing assets such as machines or plants (Grubic, 2014; Smith, 2013). Providers strengthen their capabilities to offer and achieve services levels if they are able to track performance of services under their operation across company boundaries.

Conflict Handling/Resolution

Like in any principal agent relationship, nonownership services are exposed to potential conflicts.
Contracting parties face a general limitation for anticipating events with potential downsides for nonownership services. Thus, nonownership contracts hold negative surprises while tying provider and client processes together for the service delivery. In addition, the structure of nonownership contracts implies asymmetric interests between owner-operators and nonowning clients. The promise to exploit the virtues of asymmetric ownership, by enforcing benefits from specialization comes with potential downsides, including conflicts.

Conflict emanates from perceived inequity, and can be handled effectively reactively or preemptively, depending on the degree of understanding and sacrifice affected parties are willing to show and shoulder (Ndubisi, 2014). Reactive conflict handling is what Dwyer, Schurr, and Oh (1987) define as the ability of a relationship partner to minimize the negative impact of conflicts. Ndubisi (2013) define preemptive conflict handling as the ability to foresee and forestall sources of conflict before they create problems. Kaufmann (1987) points out that effective conflict resolution builds on flexible, informal, or interpersonal mechanisms. In essence, partners need to be prepared to align interests beyond codified contracts (Ivens, 2006).

In a recent study, Ndubisi (2014) asserts that a well-resolved conflict or problem can lead to a better relationship and outcomes, and is capable of turning an aggravated customer into a delighted self-styled ambassador of the same organization. Ability to handle conflicts effectively and to the satisfaction of relationship partner(s) will have important implications on relationship trust, relationship commitment, and sustainability (Ndubisi, 2013, 2014).

Restraint in the Use of Power

In nonownership services, partners delegate a considerable share of power to each other. That notwithstanding, power asymmetry characterizes most nonownership service relationships. The client gets a limited authority over the providers’ assets, as most apparent in the renting of assets such as property, vehicles, or machines. As clients use outputs for operations in their own value chain, providers gain considerable powers over the value creation process of their clients. Thus, for both parties the value of nonownership resides on a restriction to exercise power, that is, to limit potential downsides and damages caused by the exercise of power. MacNeil (1978, 2000) holds that relational contracts, contracting parties delegate power to each other. Thus, providers and clients need to restrict their exercise of power for the benefit of relationship performance (Ivens, 2006; Kaufmann & Dant, 1992); relationship trust, and relationship commitment.

Long-term Orientation

Nonownership contracts enable the sharing of assets across organizational boundaries. Not every nonownership contract relates to long-term relationship, as apparent in short-term car rentals. However, for some clients nonownership contracts open the opportunity to shift entire business processes to specialized service providers (Quinn, 1992). While some nonownership transactions might be closed for short-term use of assets, such contracts enable long-term outsourcing of resources operated by the provider. When parties seek benefits of nonownership over the long term, aims for short-term gain jeopardize commitment and trust in a relationship (Ganesan, 1994; Ivens, 2006). Long-term orientation places greater value on perseverance and commitment over quick results, and long-term oriented partners are less likely to forgo long standing trusty relationships for uncertain new ones, hence there is a tendency to cherish tested and trusted relationships (Ndubisi, 2011). Thus, long-term orientation of relationship partners will show a positive effect on trust and commitment, thereby driving the value of nonownership.

Mutualism

In nonownership services, partners seek to exploit advantages resulting from asymmetries, that is, one party actively pursuing ownership and its implications for positioning within value chains and technology exploitation, while the other party aiming to avoid ownership and its consequences at the same time. While nonownership value builds on expected virtues of such asymmetries, specialization of nonownership parties can also create conflicts. Dant and Schul (1992) define mutualism as an actor’s attitude that the realization of one’s own success passes through the partner’s common success. Thus, mutualism entails elements of solidarity and creates an atmosphere of “we’ ness” (Jap & Anderson, 2007) across organizational boundaries (Ivens, 2006; Ndubisi et al., 2012). In the context of nonownership, mutualism shows in providers who are conscious that their performance resides on the performance of their clients, while clients are aware of the condition of their suppliers’ well-being as a condition for their own success. Mutualism engenders greater relationship trust and relationship commitment.

Satisfaction

Relationship research has shown theoretical rationale as well as strong empirical evidence that customer satisfaction supports the willingness of partners to maintain a relationship (Anderson, 1994; Ndubisi et al., 2012). Marketing researchers define satisfaction as the confirmation of expectations, whereas negative disconfirmation harms satisfaction (Hirschman, 1970; Richins, 1983; Singh, 1988). Thus, satisfaction with nonownership services will reduce uncertainties for clients and providers and will show positive effect on commitment and trust. Providers and clients with a history of positive experiences will show a higher tolerance for negative incidents, compared to partners with
negative or absent experiences (Lovelock, Patterson, & Walker, 1998).

Drawing on MacNeil (1978, 2000), marketing researchers identify relational norms as solidarity, long-term orientation, information exchange, flexibility, monitoring, planning behavior, mutuality, conflict resolution, and the use of power as the main norms that cater to the performance of a relationship (Ivens & Blois, 2004; Jap & Anderson, 2007). Relational norms become particularly important in situations when short-term sacrifices endanger the capabilities of parties to collaborate for long-term gain.

**Levels of Commitment and Trust**

For the provision of nonownership services, different organizational levels matter (Fang et al., 2008). They include the interorganizational level, shaped by the contract as well as relational governance mechanisms, and the interpersonal level, shaped by the interaction of representatives of the client and the provider firm engaged in the cocreation of the service. As stated earlier, relational governance takes place when cocreating parties maintain social relationships for long-term gains, and accept and tolerate short-term sacrifices. This makes commitment, where partners invest in order to maintain a relationship, the core characteristic of a relationship (Moorman et al., 1993; Morgan & Hunt, 1994).

One core mechanism capable to address potential downsides of nonownership contracts is interorganizational commitment. As commitment is the intention to maintain a valued relationship in the face of short-term loss, it works as a social resource enabling providers and clients to maintain cocreation processes in the case of unexpected downsides and fatalities not covered in the contract. In the case of nonownership services, interorganizational commitment becomes prevalent (Anderson & Weitz, 1992; Mäkel & Maula, 2006; Ndubisi, 2011). Interorganizational commitment is based on the intention of two or more organizations to maintain relationships, and explore and exploit joint opportunities. In the face of uncertainty, interorganizational commitment works as a buffer against downside uncertainties related to existing contracts (Palmatier, Houston, Dant, & Grewal, 2013; Sousa & Fairise, 2014). To the extent that partners can rely on committed organizations they can expect support and goodwill for the mobilization of resources beyond contractual obligations.

Interorganizational trust becomes relevant when cocreating firms deploy human resources or nonfungible investments into a cocreation relationship (Fang et al., 2008). By investing into a relationship, both client and provider lose control over their resources and expose themselves to potential opportunism or lock-in (Williamson, 1985). As providers and clients cannot fully anticipate future exposure to opportunism, trust works as a complement to contracts with respect to handling future uncertainties. Thus, interorganizational trust is a critical antecedent for partners to enter a nonownership relationship. In the case of nonownership services, both parties need to maintain technical and organizational interfaces that translate provider performance into the clients’ benefits, as well as human resources for the integration and control of the service. To the extent that these investments lose value outside the relationships, parties are exposed to potential opportunism or hold-up by their partner. In the precontract phase, lack of trust might be prohibitive and deter partners form engaging in potential valuable service. During the relationship, lack of trust causes conflict and thereby jeopardizes the quality and performance of the collaboration (Argyres, Bercovitz, & Mayer, 2007; Bamford, Ernst, & Fubini, 2004; Ndubisi, 2011, 2013).

In interpersonal relationships across firm boundaries, representatives act as linking pins between provider and client (Fang et al., 2008). Trust between these representatives serves to strengthen and sustain the relationship. This becomes important when cocreating companies maintain idiosyncratic processes in order to combine, integrate, and redeploy resources in response to changing environmental conditions (Fang et al., 2008; Moran & Ghoshal, 1999; Reed & DeFilippis, 1990). Nonownership value propositions reside on particular special conditions and are driven by asymmetries between provider and client—both client and provider benefit especially precisely because they choose different roles in the value creation process, for example, owner versus user roles, upstream versus downstream, or technology development versus technology commercialization. Such nonownership value propositions are neither obvious nor trivial at the outset of their launch.

As a consequence, provider and client face uncertainties to the specialization of their resources. Identifying nonownership value propositions resides on exchange of tacit knowledge that is not easily codified, and when adaptation of processes involves tacit knowledge, there is no alternative to the engagement of clients’ and providers’ representatives in (trusty) interpersonal relationships (Fang et al., 2008; Nahapiet & Ghoshal, 1998; Nonaka, 1994; Polanyi, 1983). Trusty interpersonal relationships provide the context for the mutual adaptation of processes and the smooth implementation and integration of nonownership services.

A core construct of the uncertainty-driven perspective is system trust, where actors put confidence in impersonal social, technological, or economic systems (Granovetter, 1985; Jalava, 2003; Luhmann, 1979; Möllering, 2001; Shapiro, 1987; Simmel, 1990). Social theorists identify system trust as a key force in the growth of social systems, enabling individuals to collaborate even in anonymity. Interpersonal trust comes with a down side as it fosters personal dependencies and undermines control. In contrast, system trust builds on organizational routines and technical standards that reduce uncertainties. Thus, system trust is a potential force for market growth of nonownership services, as it is instrumental in decoupling trust from dyadic interpersonal or interorganizational
relationships. However, system trust also vanishes when companies create situations of what Granovetter (1985) calls undertrusting. Thus, system trust builds on standardized and institutionalized forms of trust, such as warranties, corporate brands, and reputation (Leischnig & Enke, 2011; Martín & Camarero, 2005). The crucial contribution of such policies is to transcend trust from a dyadic to an interorganizational, industry, and interindustry level (Pennington, Wilcox, & Grover, 2003).

**ROLLS-ROYCE AIRPLANE ENGINES’ RELATIONAL APPROACHES AND NONOWNERSHIP VALUE EXPLORATION AND EXPLOITATION**

Rolls-Royce, one of the world’s largest aircraft engine manufacturers, is an industrial pioneer of nonownership services. In addition to its offering of engines, Rolls-Royce offers services to the point where it becomes part of the operation of a flight. This service business has been growing in both, the defense as well as in the commercial businesses since 2004, the year Rolls-Royce started to report its service revenues. While service revenues grow continuously and revolve between 50% and 60% of total revenue, industry reports suggest that they contribute to around 70% of total profits of Rolls-Royce aviation business. (The Economist, 2011; see Figures 5 and 6).

In its “Power-by-the-Hour” business model, Rolls-Royce takes on uncertainties of airlines in operating aircraft engines, literally becoming an entrepreneur of flight operation-uncertainties, while airlines take on the role of entrepreneur of flight-commercialization uncertainties. Client airlines pay Rolls-Royce only for the time the airplane engines are effectively in the air. Thereby, Rolls-Royce takes over uncertainties of its clients related to the operation of the flight, while it gains opportunities from enhancing reliability and increasing efficiency of operations.

The benefits of this scheme became apparent from the first Power-by-the-Hour contract Rolls-Royce closed with its pioneer customer the U.S. navy. In the first year, the U.S. navy was able to raise availability of airplanes from 70% to 85%, and the average time the U.S. navy could use an engine before it needed to be removed increased from 700 to 900 hours. At the same time, maintenance costs of the U.S. navy were transformed from an uncertain cost driven by aircraft contingencies, to a preagreed cost for Rolls-Royce’s services (Smith, 2013). The role of these pioneering projects highlights also the role of satisfaction in transforming uncertainties, showing evidence that the nonownership service is feasible and mutually beneficial for both parties.
Rolls-Royce and the U.S. Navy built these results on prior relationships. Rolls-Royce pioneered the system with key customers, first as an element of military contracts. In the first three years of the contract, the U.S. navy could achieve annual cost savings from USD5 million to USD18 million (Smith, 2013). Prior established personal relationships were key in pioneering the nonownership contract and implementing its benefits. This illustrates how becoming an owner transforms the responsibility of the supplier and its impact on service quality. It also shows the impact of interpersonal relationships in identifying value propositions of nonownership services and establishing interorganizational relationships for their exploitation. Personal relationship was instrumental in the use of communication to build up trust and create a relationship atmosphere conducive for the performance of nonownership contracts. Long-term orientation and mutualism helped to curb opportunism and created trust and commitment in the relationship. Trusty and committed relationships were also developed by viewing and treating partners/clients as cocreators of value rather than as less influential and dependent service consumers.

If things go wrong in nonownership service, both parties are harmed, but the potential damage is typically much higher for the client. For example, be it the entire A380 fleet of Qantas being grounded because of engine problems, or a manufacturing line coming to a standstill as a malfunctioning supplier-operated machine cannot be repaired, problems or conflicts can have negative consequence on provider–client relationship. While in many cases such as these, companies find themselves in front of courts, but Rolls-Royce has demonstrated that commitment and engaging swiftly in solving the problems are important steps. Effective conflict handling mechanisms/strategies can help in building trust and commitment in the provider–client relationship. Both preemptive and reactive conflict handling mechanisms are important (Ndubisi, 2014) in facilitating and sustaining nonownership services.

Power-by-the-Hour was made possible by investments into information systems that allows Rolls-Royce to track the performance of its engines in real-time (Smith, 2013). These monitoring and tracking systems are also key elements in fostering systems trust of Rolls-Royce clients. As predicted by property rights theory, reduced information costs made supplier ownership feasible. In addition, airlines and Rolls-Royce were able to strengthen their managerial focus, either towards passenger service in the case of the airlines, and on technology in the case of Rolls-Royce. In the case of Rolls-Royce, it also shifted its focus on the long-term reliability of its engines, thereby driving down the costs of repair and maintenance, thus directly increasing profits for Rolls-Royce in the short-term, but enhancing system efficiency for all players in the long run. Thus, long-term orientation played a key role in establishing the service.

Contracts do not suffice to unlock the nonownership benefits for Rolls-Royce and its clients. One prime mover is Rolls-Royce’s commitment. This becomes credible by Rolls-Royce’s investment in global information and tracking systems that are a lock-in for Rolls-Royce and tie its fate on the performance of its services. Rolls-Royce complements this by investments into its corporate brand and its Power-by-the-Hour label that tie the fate of its service business to an audience in the sense of an institutional commitment (Lohmann, 2003). Rolls-Royce’s financial performance that demonstrates the attractiveness of its Power-by-the-Hour service and is substantial pricing power are shown in Figures 5 and 6.

RESEARCH OPPORTUNITIES

Trust as the Key to the Potential Market for Nonownership Services

In his pioneering contribution on the social context of economic reality, Granovetter (1985) showed the downsides of underestimating as well as overemphasizing the impact of social relationships on economic value. In a similar vein, managers and researchers need to look at the interplay of contracts and relationships in unlocking the value of nonownership and the sharing economy.

The challenges become apparent in current business models aiming at the widespread diffusion of nonownership services. For example, cloud-based services such as AirBnB, Salesforce.com, or Uber demonstrate the potential of smart IT design to enhance the feasibility and reliability of resource sharing, engineer conditions that favor the realization of nonownership value propositions, and reduce the costs of resource-sharing. At the same time, current challenges of these services clearly demonstrate the need to maintain the human factor in these systems. The current challenges of sharing services to win the trust of potential customers provide promising opportunities for interdisciplinary research in particular at the interface of the social sciences and IT engineering. The challenges of the sharing economy underscore the need to develop the social dimension of the business. For researchers, this is a fascinating opportunity to unveil the dimension of social relationships and show evidence for relational approaches as well as their impact on performance of nonownership and sharing businesses.

Uncertainty Sharing and the Organization of Value Cocreation

Service research has made significant progress by identifying cocreation as a key element of service processes (Ballantyne & Varey, 2008; Vargo & Lusch, 2004). However, the almost unaddressed questions still to be answered by service research are why and how...
co-creation should be divided between companies or between consumers and companies. In other words, why and to what extent does economic organization matter for co-creation and the provision of services. Nonownership approaches (Ehret & Wirtz, 2010; Lovelock & Gummesson, 2004; Wittkowski et al., 2013) provide the inroad to address these problems. They are both starting points for more comprehensive and consistent theories of co-creation as well as implying practical means for uncertainty transformation, such as the design of contracts, the use of IT systems, the exploration of technologies, or the cultivation of social relationships.

While it is apparent, that uncertainty plays a key role in the different modes of value co-creation, this opens significant opportunities for researchers for unveiling various approaches to handle uncertainties in value co-creation. Some of the most interesting are the contribution of IT systems in sharing uncertainties across organizational boundaries, the use of real-options for the financial valuation of uncertainty in value co-creation and not least the contribution of social relationships for handling uncertainties (as outlined in this paper). Future empirical research in these areas of scholarship will be beneficial.

**SUMMARY AND CONCLUSIONS**

Economic theory identifies three types of value propositions offered by nonownership services. They are (1) to enhance contracting efficiency, (2) to foster management productivity, and (3) to empower companies to explore mutually beneficial business opportunities. Nonownership contracts are the core building block of value propositions of nonownership services as they transform downside uncertainties of clients into business opportunities of providers. However, written contracts entail severe limitations because uncertainty defies ex-ante specification.

In a classical contract law perspective, nonownership contracts appear as a paradox, as the institution of ownership becomes valuable in situations where it is impossible or too costly to write contracts. In contrast, relational contract theory conceives contracts as legal elements of social relationships. From a relational contracting perspective, social relationships enable contracting parties to handle uncertainties which cannot be captured by contracts and thereby enable the exploitation of nonownership service value propositions.
Relational governance mechanisms help parties to handle uncertainties beyond the limited domain of written contracts. As nonownership contracts aim to provide a response to uncertainty, relational approaches enhance the sustainability of nonownership. Due to the high potential for conflicts apparent in nonownership, relational governance mechanisms are a crucial, but oftentimes neglected element of nonownership business models.

This paper extends literature of relational governance by elaborating its potential for uncertainty sharing. It contributes to the growing body of research on nonownership services by elaborating the role of governance mechanisms to help to fulfill the promise of specialization for business opportunities.

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