

SERVICE CONTRACTS AND THE ALLOCATION OF ENTREPRENEURIAL RIGHTS ACROSS INDUSTRIAL NETWORKS

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Abstract

From the non-ownership perspective, service contracts decouple the transfer of benefits from the transfer of ownership. In the non-ownership-view companies selling ownership rights of assets operate in the domain of the goods business while those selling non-ownership rights operate in the service business. By offering industrial services, an industrial service provider relieves its customers from entrepreneurial uncertainties, for example volatile costs of operating a machine or a plant. Service contracts provide the means to allocate entrepreneurial responsibilities of a business operation to those participants with the best capabilities and capacities to bear them. Service contracts prove most valuable when companies face asymmetric uncertainties across a value creating network. As major implications, service contracts allocate entrepreneurial rights and responsibilities in co-creation transactions, unlock entrepreneurial opportunities for value creation across a business-network, provide an infrastructure for the incubation of new ventures.

Keywords: Service Economy, Entrepreneurship, Non-Ownership Paradigm, Industrial Networks

Work-in-progress Paper

Introduction

As economies grow they transform from industrial to service economies. Consistently, developed economies command a share of value created in services sectors of around 60-80 percent. Politicians and economists have been noting this with mixed emotions. Early-on economists have expressed concerns, that the service sector inhibits productivity and therefore its rise indicates economic decline – a diagnose phrased as “Baumol’s disease” (Baumol, 1967; Triplett and Bosworth, 2003).

In the light of the recent financial crises, the current debate echoes this perspective on services. US president Obama made a point of “bringing manufacturing back” to the US as part of his economic re-election program (Goldfarb, 2012). In October 2012 the European Commission announced a reversal of its initiative for industrial competitiveness the outright goal to re-strengthen the share of manufacturing (European Commission, 2012).

However, there is no strong evidence that service industries restrain growth. First, there researchers struggle to provide a sound definition of services: Service research has struggled to provide a valid definition of services (Lovelock and Gummesson, 2004). The emerging "Service-Dominant-Logic" gaining attention in service and management research is quite tautological, as it proposes every economic activity as an element of service delivery, with manufacturing of goods as a special case (Vargo and Lusch, 2004). A growing body of research is questioning Baumol's disease: Studies regularly identify business services as the major drivers of the growth of the service economy and also identify business services as a powerful source of productivity gains (Triplett and Bosworth, 2003; Woelfl, 2005). From an IMP perspective, business services form elements of networked value creation (Ford & Mouzas, 2010, 2013).

An emerging body of literature suggests that an essential characteristic of a service is the provision of benefits without the transfer of ownership (Lovelock and Gummesson, 2004). For example, most people would consider selling a car as a goods business and renting a car as a service business (Lovelock and Gummesson, 2004; Ehret and Wirtz, 2010). In entrepreneurship research, ownership is one central institution, furnishing entrepreneurs to organize business projects for the exploration and exploitation of business opportunities (Mises, 2007; Foss et al. 2007).

This article proposes that service contracts provide a crucial means to organize entrepreneurship activity, by allocating entrepreneurial responsibilities thereby empowering firms to navigate towards most promising opportunities. It contributes to the IMP-literature by elucidating the entrepreneurial dimension of networked value creation, where current IMP-research predominantly focuses on the managerial dimension (see e.g. Ford & Mouzas, 2013). The article is structured as follows: The second section introduces the non-ownership perspective of services. The third section provides an Austrian rationale for service contracts as institutional means for organizing entrepreneurial activity. Next, the article proposes an anatomy of service contracts based on their use in the entrepreneurial process.

As major implications, service activities are most significant in the business sector and related to a transformation of industries and firms. Service growth is an indicator of the transformation of business. Policies focusing on the revival of manufacturing can succeed as long as they take notices of manufacturing as a services platform with innovation potential and business

transformation. If they are aiming to establish a return to blue-collar jobs, they are locking economic potential.

Non-ownership Perspective of Services

Service research emerged as a response to phenomena of value creation that fall outside paradigms largely focused on manufacturing businesses. Accordingly, researchers tended to define services as specific categories of output that distinguished them from standardized, material products. Widely-held key characteristics of service-outputs are their intangibility, heterogeneity, inseparability and perishability (IHIP) that reflect crucial management challenges of service businesses (Zeithaml et al. 1985, Lovelock and Gummesson 2004). An interesting feature of services that is not reflected in this standard categorization is revealed in the rise of business services. In many cases, like the outsourcing of support services in our canteen example, the substantial change when substituting internal operations by an externally sourced service may well be the introduction of an organizational interface drawing a line between a service provider and its client. The fundamental event that has transformed a manufacturing support-activity into a genuine service process is the division of labor between the client and the provider. The crucial difference is that the client has delegated responsibility and managerial control to an independent firm.

This resonates well with one stream of service research that argues that services provide value by liberating clients from costs and burdens of ownership (Judd 1964, Lovelock and Gummesson 2004). For example, you can enable yourself to use a car either by buying or renting one. Most economic statistics would classify the first case as a goods business, and the second as a service business. This is the basic idea underlying Lovelock and Gummesson's (2004) proposition of the rental-access paradigm of services. The main factor differentiating goods-centered from service-centered transactions relies on the transfer of ownership rights. In this light, services are simply transactions without the transfer of ownership rights, in contrast to trading goods for money.

In that light, services are a response to the fact that ownership burdens its holders with costs, responsibilities and liabilities that can outweigh its benefits. As a car owner you are exposed to fluctuations in market prices and dependent on its current location. These features make car-ownership unattractive for the occasional transcontinental business or holiday trip, but much more attractive for frequent commuting or spontaneous rural escapes (Ehret and Wirtz, 2010). However, if companies perceive assets and people as a burden, why do they find service providers who are willing to take on these responsibilities? One misleading implication of the rental-access paradigm would be to conclude that ownership is disappearing entirely in the service-economy. While services free users from burdens and responsibilities associated with ownership, service providers often take over ownership and see this as a business opportunity (Rifkin 2000). Business services build on the re-allocation of ownership from clients to service providers, rather than mere replacing ownership. But when and why does the re-allocation of ownership and responsibility imply benefits? This question is at the heart of three related research streams on the theory of the firm, which we present next.

The Service economy through an entrepreneurship lens

AUSTRIAN THEORY OF VALUE AND ITS IMPLICATION FOR SERVICES

The Austrian value theory touches a common ground with both, Service-Dominant-Logic and Property Rights Theory. Menger acted as a pioneer of subjectivist theories of value, stating that in addition to its causal power to satisfy a need, potential users must also perceive a need, get to

knowledge about the goods contribution to needs satisfaction and get into possession of the good (Menger 2007; Blois, 2002).

Thus, on top of intrinsic technical characteristics of a resource, perception, knowledge and possession are mandatory for turning an object into a good. Value may be conditioned by the objective characteristics of a good, but is determined by subjective valuation and social conditions (Menger, 2007; Ballantyne and Varey 2006).

This implies, that resources are bundles of multiple uses and that their value is a function of users perceiving and valuing these uses (Mises 2007).

The marketing function is perhaps the strongest testimonial of subjectivist value theory, where companies spend a significant share of their capital in order to spot emerging usage patterns, influence the perception of potential users and design offerings for value enhancement of users at a profit for business.

From this perspective, the rise of services in the course of economic development comes with little surprise. As economies grow richer, the uses for a given resource will multiply. To the extent that users and businesses develop differentiated modes of resource use, business activities will focus on potential uses of resources rather than on managing the resources themselves. Not surprisingly, the share (not the volume!) of primary resource extraction and manufacturing in business activity shrinks in favour of the services rendered from the resource base. The service economy is a testimonial of the subjectivist dimension of economic goods.

THE INSTITUTION OF OWNERSHIP AND THE EMERGENCE OF THE SERVICE ENTERPRISE

Economists define ownership as residual rights over an asset as well as the right to obtain the residual income from the asset that remains after all contracts have been fulfilled (Barzel, 1997; Grossman and Hart, 1985). Thus, owners enjoy the highest authority over an asset within a given institutional order. Property rights theory claims that ownership becomes vital in the face of economic uncertainties. While contracts define rights to use, change, obtain income from or sell an asset, the owner enjoys authority and bears responsibility for all benefits and costs not specified in contracts (Furubotn and Pejovitch, 1972). Thus, the income of the owner is uncertain and takes the form of profit or loss (Barzel, 1987; Grossman and Hart, 1985).

Its strong roots in uncertainty bring ownership into a close relation to entrepreneurship (Foss et al. 2007; Barzel 1987). From the property rights perspective, Barzel states that profit is the reward of the entrepreneur for self-policing (Barzel, 1987). The Austrian school of economics emphasizes ownership as a mandatory condition for the exercise of entrepreneurship. Ownership empowers entrepreneurs to put assets to the highest valued uses and entitles entrepreneurs to capitalize the resulting profits (Mises, 2007, Rothbard, 2004; Foss et al., 2007).

Mises' catallactic perspective of ownership, elaborates the crucial connection between ownership and services: "Ownership means full control of the services that can be derived from a good." (Mises, 1981, p. 678). While resource users may use a service by the means of specified service contracts, owners enjoy the authority to define the terms of resource use, including services not yet known (Barzel, 1987; Grossman and Hart, 1985). While Mises convenes with property rights theory that, profits are the reward for entrepreneurial control of assets, he extends this with reference of market dynamics. Within a competitive market economy, ultimately consumers decide about asset valuation with their purchasing decisions. Consequently, ownership is only a benefit for those, who are able to foresee consumer decisions and employ assets to the highest valued use. Thus, within a competitive market economy, the relationship between ownership and entrepreneurship becomes reciprocal: While entrepreneurs need ownership in order to direct

business projects, competition forces owners to exercise entrepreneurial functions if they want to preserve the value of their resources (see Mises, 1981, pp. 678-680). As entrepreneurs want to become owners in order to direct their business projects, competition forces owners to act as entrepreneurs if they want to preserve or increase the value of their assets.

The expansion of a capital using economy enforces the differentiation between the domain of owner-entrepreneurs who control the deployment of resources to business projects and resource-service users whose are mainly interested in purchasing specified services rendered from the resource base for consumption or production purposes. In this perspective, the rise of the service economy indicates the allocation of ownership rights to entrepreneurs and specific rights to resource-users.

The role of ownership in the direction of business projects

Ownership grants its holders residual decision rights over the related assets and entitles the rights to capitalize the residual income from these assets. Both elements are vital for the entrepreneurial process of the exploration and exploitation of business opportunities.

OWNERSHIP AND THE EXPLORATION OF BUSINESS OPPORTUNITIES

Residual rights over an asset empower entrepreneurs to explore new uses for an asset. Ownership has a technical and an economic function. Backed by ownership rights, designers, researchers or engineers can engage in exploration of opportunities, by modifying and experimenting and applying assets (Lewin, 1999; Shane and Venkataraman, 2000). Thus, ownership provides the legal resource to abuse resource and identify sources of value.

The economic dimension relates to the market value. On competitive commodity markets, market prices gravitate towards the marginal cost. As a consequence, entrepreneurial profits shrink towards zero. Entrepreneurs will find business opportunities beyond the domain of commodity markets shaped by intense competition (Lewin, 1999; Lachmann 1977; Chiles et al, 2007, 2010). Thus, ownership provides the backbone where entrepreneurs recombine resources in the hope to realize higher valuation compared to current market prices – the domain of the firm. Within the domain of the firm, entrepreneurs recombine resources (or in Austrian terms “higher ordered goods”) to consumer products (“lower ordered goods”). Or in plain words, firms transform resources from commodities acquired on markets into means of production for the provision of future products. Ownership constitutes the legal backbone for the production.

Engaging in production provides entrepreneurs with the opportunity to explore new modes of value and thereby identify profit opportunities. However, mere recombination does guarantee neither enhanced value nor success.

OWNERSHIP AND THE EXPLOITATION OF BUSINESS OPPORTUNITIES

Ownership grants its holders the rights to define specific rights and the terms of access and use of assets. Thus, ownership rights provide the backbone for entrepreneurs to design service offerings, and negotiate the terms of trade. Property rights theory states four core categories of property rights: The right to use an asset, to change it, to obtain income with it and to sell the object (Furubotn and Pejovitch, 1972). The residual rights empower their holders to specify rights to their assets and price them in order to maximize the value (Barzel, 1994, Grossman and Hart, 1985). As part of commercial activities, owners will seek to define a bundle of rights to use services of their asset base in a way that maximizes the value of the asset.

SERVICE CONTRACTS AND THE STRUCTURE OF PRODUCTION

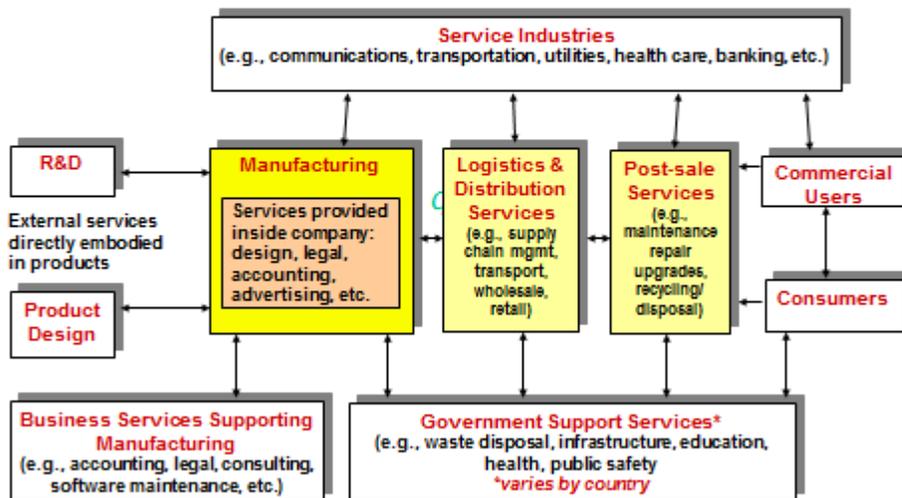
Service contracts reflect the entrepreneurial dimension of the division of labour. Ownership rights allocate entrepreneurial responsibilities and entitlements to the entrepreneurial actor, and access-rights to service benefits to resource users (Foss et al, 2007; Mises, 2007; Casson, 2005; Endres and Harper 2010; Harper and Endres, 2012).

One fundamental form of division of labour is that between the household and the firm. As the organizational domain of consumption, the household's members' main interest is on the access to services. As the domain of the organization of production, members of the firm are predominantly interested in the domain for new types of outputs and the means and processes of production. The domain of consumer services reflects this division of labour between household and firm. The transformation of consumer goods into consumer services sectors reflects the transfer of entrepreneurial responsibilities from the domain of the household to the domain of the firm (Mises, 2007).

A good example is private car ownership. A household may buy a car to serve its transportation needs. The technical design will call for provision of energy, that in theory the household could maintain itself. In economic reality, a service system predominantly comprising of filling stations has emerged to address that need. Technically, a household could (and some do) care for the technical maintenance of a car. Again, in reality a service system of parts suppliers and garages serves this. Households with funding needs might transfer the ownership of the car to rental or leasing companies. Not least, in urban areas, a growing range of households is starting to delegate car-ownership to car-sharing schemes. To various degrees, all these services build on the delegation of ownership rights from the domain of the household to the domain of the firm. It is hard to imagine car-transportation as a feasible means of transport without the delegation of substantial ownership rights from the domain of the household to the domain of the firm.

SERVICE CONTRACTS AND BUSINESS ORGANIZATION

Businesses can also use service contracts to allocate entrepreneurial responsibilities and profit opportunities. By using service contracts, those firms who are in the best position to exercise the role of the entrepreneur, can assume asset ownership whereas firms residing on using the asset's service close service agreements with the providers. The service contract allocates the role of the entrepreneur to the service provider and the role of the resource user to the service client. The provider takes on the entrepreneurial responsibility related to the asset and therefore is entitled to capitalize the residual income. By the same token, clients can use the services of the assets for their business project, without taking entrepreneurial uncertainties.



Source: Quinn, 1992

Figure 1: Business services and the co-creation of value (adapted from Quinn, 1992)

Thus, service contracts empower managers to define the domain of entrepreneurship within a value network (see figure 1). Historically, companies started this practice by outsourcing activities like IT-management, logistics or marketing services to specialized service providers (Quinn, 1992; Arora et al. 2004; Chesbrough, 2011). Gradually, companies have been expanding the scope of external service providers for example to contract manufacturing or external R&D to the extent that almost any relevant business operation can be hired as a service (Quinn, 1992; Ehret and Wirtz, 2010).

As a consequence, companies have been moving to more fine-grained ownership constructs. For example, airplane-engine manufacturers like Rolls Royce have opened up service businesses by selling power-by-the-hour contracts to airlines. By the means of the service-contract, the provider takes-on responsibility for the technical risk related to engine performance. As compensation is based on engines under operation, the provider has an incentive to detect early and resolve fast interferences to flight operation. In practice, airplane engine manufacturers invest in an engine tracking-system and a communication network enabling them to direct maintenance teams to the fast resolution of issues related to flight operation (Ehret and Wirtz, 2010).

This contractual construct frees the management of the airline to focus its attention on those operation that presumably show the highest impact on business performance, like positioning of the airline, establishing and maintaining a network, customer service or branding. Engine manufacturers get additional profit opportunities by offering services. However, this requires the move of the strategic focus from selling modules to a service operation. As a consequence, manufacturers prioritize investments into the reliability of airplane-engine operation, backed by information technology and maintenance. These investments have the potential to benefit both,

the airplane by getting an improved efficiency of airlines and the service-provider by getting a profit opportunity.

Anatomy of Service Contracts

Understanding services as offerings of benefits without the transfer of ownership opens a new perspective on the entrepreneurial dimension of services. Ownership is a vital institutional resource for entrepreneurs (Mises 2007; Hayek, 1973). Ownership entails residual rights over a resource (Barzel, 1987; Foss et al. 2007). Thus owners enjoy the highest legal authority over an asset. This is vital for both, the exploration and exploitation of profit opportunities (Shane and Venkataraman, 2000). Entrepreneurs holding residual rights can experiment with and recombine resources in order to explore value propositions that are not available on product markets, for example in a research lab or in an IT garage. For exploitation, residual rights entitle the entrepreneurs with the freedom to sell them according to their conditions. One characteristic of ownership rights is a vital pillar to service businesses: The freedom to define so-called specified (“attenuated”) rights for an asset and sell them to paying clients (Grossman and Hart, 1985). Owners enjoy the right to define specified rights that entitle other parties to use the assets under specified conditions for example the payment of service-fees or certain rules of conduct. Examples are a landlord owning a house and offering rental contracts for specific flats, a car rental company, owning the cars and offering rental contracts to car hirers or a machine manufacturer offering rental options for industrial companies.

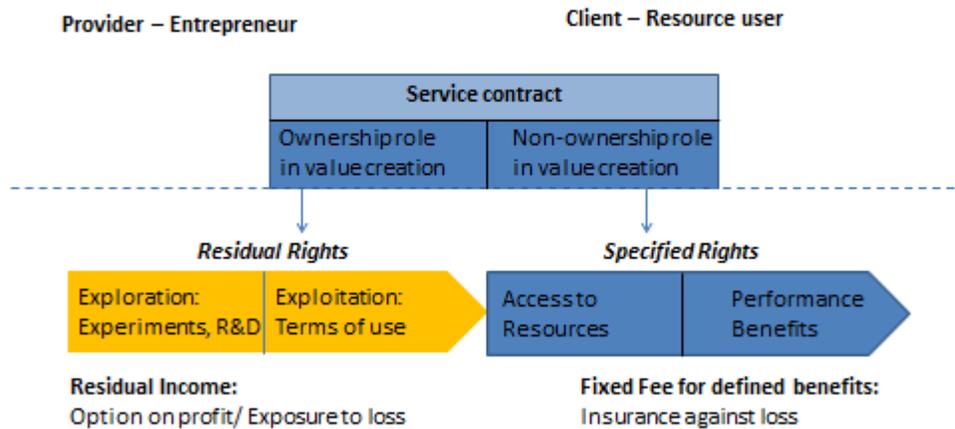


Figure 2: Anatomy of service contracts

Residual rights have a vital income aspect. The holder of residual rights is entitled to pocket in the residual income flowing from an asset that remains once all legal obligations related to the asset have been met. In the positive case, the owners’ residual income turns into profit, in the negative case it turns into a loss.

This structure makes service contracts a vital legal instrument to allocate entrepreneurial responsibilities in relation to an asset (see figure 2). Owning residual rights of an asset, entrepreneurs enjoy the right to put them to the highest valued uses in exchange for bearing the uncertainties related to failure and potential loss. From the client perspective, service contracts provide a vital means to enjoy benefits related to an asset without bearing related entrepreneurial uncertainties. As soon as clients are able to define benefits they aim for and feel capable to judge the financial value of related services, the service contract becomes an attractive option.

In a service transaction the client enjoys the right to obtain a benefit from the provider, at a specified quality in exchange for paying a specified price. The provider offers the obligation to deliver benefits for the client as defined in the contract in exchange for a contractual agreed service fee. For the provider the contract is an option to make a profit: the transaction turns into provide as soon as the costs are below the revenue flowing from the transaction. The service client acquires the

Explorative Study BioIncubation

METHODOLOGY

We built three main datasets to categorise UK biotechnology incubators and their tenant companies. The desk based ‘UK Life Science Start-up Survey’ provides long term view on life science start-up companies across the UK from 2005-2011. It contains data on 474 spin-out companies and examines the start-date of companies, industry type, the region in which they are based, which university or company (if any) they have been spun out of, which incubator they are based in and the amount of external finance that has been secured.

The desk based ‘UK Biotechnology Incubator Survey’ provides a more detailed examination of the characteristics of 22 UK biotechnology incubators, the types of technical support on offer, physical details of the incubator such as size, and a breakdown of the incubator ‘tenant mix’ in terms of business model, company type and start-date. The ‘UK Biotechnology Incubator Survey’ is a snap-shot of the industry taken between December 2011 and January 2012 and also contains data on 357 tenants companies. This survey is supplemented by 12 semi-structured interviews with CEO’s and Directors of UK biotechnology incubators.

The web based and postal ‘Incubator Tenant Company Survey’ was administered between November 2012 and February 2013 and contains data on 85 tenant companies from 12 UK biotech incubators. This survey collected performance related data for individual tenant companies, such as number of employees, turnover and external funding secured since entering the incubator, the number of patents filed, products and services launched. The survey also collected data regarding the types of support services used by the company, business model used, location of founders and levels of contact with universities, hospitals and other companies in and beyond the incubator.

KEY OBSERVATIONS

Explorative analysis of available data reveals the following key-observations. Start-up companies operating in regions with lack of access to venture capital employ service-based business models

in order to create cash-streams. Biotechnology incubators support the formation of service-business-models with various non-ownership services from office space through non-ownership-offerings for laboratories and technical equipment. Business incubation networks employ service contracts for the creation of new-ventures and

Conclusion

From an Austrian perspective the rise of the service economy is a systematic feature of the evolution of an entrepreneurial market economy.

1. The driving force of the expansion of markets are entrepreneurs who explore new uses of resources. Thus the rise of services indicates that a given resource base is put to an increasingly diversified array of uses as expressed in specification of service contracts. The service economy is a logical expression of the enhanced diversification of value creation we would expect in the course of economic growth.
2. Service contracts are the result of the division of entrepreneurial responsibilities. In a service-relationship, the owner exercises the role of the entrepreneur while the client takes the role of the resource user. Providers relieve clients from the burden of ownership by the means of service contracts in exchange for the option to make a profit. The rise of the service economy indicates the restructuring of economic organization in the course of economic growth, by transferring entrepreneurial responsibilities from households to firms (in the case of consumer services) or between firms (in the case of business services).
3. To the extent that economic growth stimulates competition, we can expect a reversal effect of between ownership and entrepreneurship. The more owners operate in domains under competitive pressure, the stronger will be the force to transfer ownership to actors with the highest potential to explore and exploit business opportunities.

In the entrepreneurial perspective, the service sector is rather the result of the division of labour in the course of economic development, than some new form of output or a new logic of value creation. The entrepreneurial perspective provides a consistent explanation, why a substantial share of service activity takes place within the manufacturing sector itself.

Implications

IMPLICATIONS FOR INDUSTRIAL MARKETING

Network perspectives play a prominent role within industrial marketing. Within these approaches, entrepreneurial governance has not played a significant role. Contracting approaches (e.g. Grossman & Hart 1984; Ghosh & John, 1999) refer to governance efficiency, while others relate to resource-base or network dynamics from a management perspective (Ford & Mouzas, 2010; Hakansson et al., 2009). The IMP-perspective largely focusses on the managerial elements of networked value creation (see for example Ford & Mouzas, 2010). The service entrepreneurship perspective complements this by highlighting entrepreneurial uncertainty as a key factor affecting networked value creation and the use of contracts to orchestrate business networks. The crucial contribution of the entrepreneurial networking perspective outlined here, is to elucidate entrepreneurial governance as a driving force shaping the structure of networks and emerging business relationships and markets. The currently rising interest in open business models and networked modes of value creation is partly a response to the allocation of entrepreneurial responsibilities.

IMPLICATIONS FOR SERVICE RESEARCH

Service has become a vital and vibrant research domain that makes significant contribution to the advancement especially in the management and marketing disciplines. However, service researchers still struggle to provide valid and meaningful definitions of services (see Lovelock and Gummesson, 2004). The pioneers started by defining services by highlighting phenomena where goods-dominant marketing or management approaches ran on empty, like outputs characterized by intangibility, heterogeneity, inseparability of production and consumption and perishability (IHIP). While these concepts opened perspectives of crucial but hitherto unnoticed features of value creation, they failed to found a valid definition of the service area. The rise of services has inspired researchers to propose a Service-Dominant-Logic that highlights that service relates to the quasi-universal phenomenon that economic activity is only valuable to the extent that it renders service to consumers (Vargo and Lusch, 2004). In the Service-Dominant-Logic, every economic activity is rooted in service provision. While the Service-Dominant-Logic transcends limitations of the pioneering IHIP approach, it is largely tautological. If everything is a service, what is the contribution of a service-logic? In the face of the emergence of a service economy, such a service dominant view is unable to explain the observation the move towards services in the course of economic growth

The contractual perspective paves a way for a meaningful as well as valid definition of service. The contractual view roots service as an element of a crucial everyday problem of both, business-actors as well as consumers: The sharing of entrepreneurial uncertainties and profit opportunities between service clients and providers. The contractual perspective reveals the force of the entrepreneur in the rise of the service economy. Entrepreneurs contribute to the rise of the service economy.

The contractual perspective helps also to root the service phenomenon to the initial observation that stimulated the emergence of the service-domain, that vital economic activities take place beyond extracting resources and manufacturing products. The contractual perspective opens the avenue to elucidate the role of entrepreneurial activity in the rise of the service economy. Entrepreneurs drive the rise of the service economy in three ways:

1. They identify new services rendered from resources
2. They transform uncertainties of managing assets, relieving clients from burdens of ownership.
3. They stimulate the re-allocation of resources of an economy towards the highest value-contribution potential.

The entrepreneurship perspective unveils a systematic force in the rise of the service economy that has gone unnoticed by service research so far.

IMPLICATIONS FOR PUBLIC POLICY

The wide-held view of inferior productivity effects of the service sector is ill-founded. The major share of the rise of the service sector takes place in the domain of business (Woelfl, 2005). The growing demand for business services results from a re-organization of companies in order to draw business activity closer to value creation opportunities. In that regard the rise of the service sector is a feature of entrepreneurial activity (Ehret and Wirtz, 2010). However, another insight from the contractual view is that manufacturing itself is a vital element of the service system. The wide-held view to conceive services as intangible forms of value creation is misplaced. In a contractual perspective the share of tangibles in value creation does not matter. The service phenomenon is largely driven by the need to allocate entrepreneurial rights and entitlements in

line with value creation opportunities. So there might be forms of manufacturing revival which are a consisting feature of the rise of the service economy. However, these could take forms not predicted by economic policy, potentially disrupting traditional forms of manufacturing and stimulating new industries and domains of job creation (Anderson, 2012). However, these are likely to take forms that are not predicted by policymakers. By the same taken, economic policy has largely under-estimated the role of service sectors for innovation and growth. Service-domains like banking and video-gaming have become industries that stimulate technological development and growth as well in the manufacturing sector.

MANAGERIAL IMPLICATIONS

Strategic management is currently moving its focus of attention from product strategy towards the design of business models (Zott and Amit, 2008; Chesbrough, 2011). The service economy provides a vital backbone for this move. Based on a service economy, managers have gained an increased flexibility to navigate their business towards the most promising profit opportunities (Quinn, 1992). As almost any business function can be hired as an external service, companies can focus on specific domains in order to excel. The reverse applies as well: In the context of the service economy, those companies who are relying on mediocre internal service-provision are likely to be punished (Mises, 2007). While academic research has revealed salient features of that characteristic, managers will feel short of systematic explanations of business model design. However, service-entrepreneurship reveals a useful maxim in support of management activity: Identify uncertainties that your company is better prepared to manage than the competition. There will be many different factors that impact these uncertainties. But two likely important ones are the provision of innovative services not established on the market yet and the consolidation of business operations. The first is apparent in novel service offerings established by service companies, such as internet search or building global communities. Here entrepreneurs expand the service-base of an economy. The other direction is the consolidation of redundant resources and activities under the governance of a business service provider, like in outsourcing arrangements. Here the entrepreneurial contribution of the service provider to reduce the entrepreneurial scope of business clients, by taking on activities that have lost direct relevance for position offerings. This is a direct consequence of standardization and commoditization of business activities in the economic market place. However, an industry-wide transfer of ownership of ownership to business service providers hands incentives for investments into efficiency and quality improvements that would be absent within the domain of integrated firms.

References

- ALLEN, D.N. and MCCLUSKEY, R., 1990. Structure, Policy, Services, and Performance in the Business Incubator Industry. *Entrepreneurship: Theory & Practice*, **15**(2), pp. 61-77.
- ARORA, A., 2004. *Markets for technology : the economics of innovation and corporate strategy*. Cambridge, Mass. ; London: MIT.
- BALLANTYNE, D. and VAREY, R.J., 2006. Creating value-in-use through marketing interaction: the exchange logic of relating, communicating and knowing. *Marketing Theory*, **6**(3), pp. 335-348.
- BARZEL, Y., 1997. *Economic analysis of property rights*. 2nd edn. Cambridge: Cambridge University Press.
- BARZEL, Y., 1987. The Entrepreneur's Reward for Self-Policing. *Economic inquiry*, **25**(1), pp. 103.
- BAUMOL, W.J., 1996. Entrepreneurship: Productive, Unproductive, and Destructive. *Journal of Business Venturing*, **11**(1), pp. 3.
- BAUMOL, W.J., 1967. Macroeconomics of Unbalanced Growth: the Anatomy of Urban Crisis. *American Economic Review*, **57**(3), pp. 415.
- BECKER, G.S. and MURPHY, K.M., 1992. The division of labor, coordination costs, and knowledge. *Quarterly Journal of Economics*, **107**(4), pp. 1137.
- BLOIS, K., 2002. Analyzing Relationships Using Macneil's and Menger's Approach to Exchanges. *Journal of Relationship Marketing*, **1**(3), pp. 95.
- BOEHM-BAWERK, E.V., 1890. *Capital and interest : a critical history of economical theory*. Macmillan.
- CASSON, M., 2005. Entrepreneurship and the theory of the firm. *Journal of Economic Behavior & Organization*, **58**(2), pp. 327-348.
- CHESBROUGH, H.W., 2011. *Open services innovation : rethinking your business to grow and compete in a new era*. San Francisco, Calif.: Jossey-Bass.
- CHILES, T.H., BLUEDORN, A.C. and GUPTA, V.K., 2007. Beyond Creative Destruction and Entrepreneurial Discovery: A Radical Austrian Approach to Entrepreneurship. *Organization Studies*, **28**(4), pp. 467-493.
- CHILES, T.H., TUGGLE, C.S., MCMULLEN, J.S., BIERMAN, L. and GREENING, D.W., 2010. Dynamic Creation: Extending the Radical Austrian Approach to Entrepreneurship. *Organization Studies (01708406)*, **31**(1), pp. 7-46.
- CHILES, T.H., VULTURE, D.M., GUPTA, V.K., GREENING, D.W. and TUGGLE, C.S., 2010. The Philosophical Foundations of a Radical Austrian Approach to Entrepreneurship. *Journal of Management Inquiry*, **19**(2), pp. 138-164.
- COWAN, R. and RIZZO, M.J., 1996. The genetic-causal tradition and modern economic theory. *Kyklos*, **49**(3), pp. 273.
- EHRET, M. and Wirtz, J.: Division of Labor between Firms: Business Services, Non-Ownership-Value and the Rise of the Service Economy. *Service Science* **2**(3), pp. 136-145
- ENDRES, A.M. and HARPER, D.A., 2012. The kinetics of capital formation and economic organisation. *Cambridge Journal of Economics*, **36**(4), pp. 963-980.

EUROPEAN COMMISSION (2012): COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS: A Stronger European Industry for Growth and Economic Recovery. Industrial Policy Communication Update. Brussels 2012.

FORD, David & MOUZAS, Stefanos, 2013. The theory and practice of business networking. *Industrial Marketing Management*. Apr 2013, Vol. 42 Issue 3, p433-442.

FORD, David & MOUZAS, Stefanos, 2010. Networking under uncertainty: Concepts and research agenda, *Industrial Marketing Management* 39, 956-962 (2010).

FOSS, K., FOSS, N.J. and KLEIN, P.G., 2007. Original and Derived Judgment: An Entrepreneurial Theory of Economic Organization. *Organization Studies* (01708406), **28**(12), pp. 1893-1912.

FURUBOTN, E.G. and PEJOVICH, S., 1972. Property Rights and Economic Theory: A Survey of Recent Literature. *Journal of Economic Literature*, **10**(4), pp. 1137.

GHOSH, M. and JOHN, G., 1999. Governance Value Analysis and Marketing Strategy. *Journal of Marketing*, **63**(4), pp. 131-145.

GOHMANN, S.F., HOBBS, B.K. and MCCRICKARD, M., 2008. Economic Freedom and Service Industry Growth in the United States. *Entrepreneurship: Theory & Practice*, **32**(5), pp. 855-874.

GROSSMAN, S.J. and HART, O.D., 1986. The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration. *Journal of Political Economy*, **94**(4), pp. 691-719.

HAYEK, F.A., 1973. *Law, Legislation and Liberty. Volume 1: Rules and Order*. Chicago: The University of Chicago Press.

LEWIN, P., 1999. *Capital in equilibrium : the role of capital in a changing world*. London: Routledge.

MCMULLEN, J.S. and SHEPHERD, D.A., 2006. Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. *Academy of Management Review*, **31**(1), pp. 132-152.

MENGER, C. (2007): *Principles of Economics*. (Originally published 1871 in Vienna, Translated by James Dingwall and Bert F. Hoselitz. Auburn, AL, USA, Mises Institute 2007.

QUINN, J.B., 1992. *Intelligent enterprise : a knowledge and service based paradigm for industry*. Free Press: Maxwell Macmillan : Maxwell Macmillan International.

RIFKIN, J., 2000. *The age of access : how the shift from ownership to access is transforming modern life*. London: Penguin.

ROTHBARD, M.N. 2004. *Man, economy, and state : a treatise on economic principles ; with Power and market : government and the economy*. Scholar's edn. Auburn, Ala.: Ludwig von Mises Institute.

SHANE, S. and VENKATARAMAN, S., 2000. The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, **25**(1), pp. 217-226.

TRIPLETT, J.E. and BOSWORTH, B.P., 2003. Productivity Measurement Issues in Services Industries: "Baumol's Disease" Has Been Cured. *Economic Policy Review* (19320426), **9**(3), pp. 23-33.

VARGO, S.L. and LUSCH, R.F., 2004. Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, **68**(1), pp. 1-17.

WOELFL, A. 2005. The Service Economy in OECD countries. OECD (2005): Enhancing the Productivity of the Service Sector 27-63. OECD, Paris.

VON HAYEK, F.A., 1935. *Prices and production*. 2nd, revised & enlarged edn.

ZEITHAML, V.A., PARASURAMAN, A. and BERRY, L.L., 1985. Problems and Strategies in Services Marketing. *Journal of Marketing*, **49**(2), pp. 33-46.

ZOTT, C. and AMIT, R., 2008. The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal*, **29**(1), pp. 1-26.