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Appropriability, services and reputation

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The appropriability regime (Teece 1986) that innovating service firms face is generally weaker than what firms in manufacturing sectors face. An important means to appropriate benefits from innovation that service firms can use is their reputation. This conceptual paper offers insights into how a firm's reputation helps in appropriating value from innovation. Depending on the nature of a service, different kinds of third parties come into play in establishing reputation. In helping firms establish a reputation, such third parties influence customer decisions to acquire a service. While 'to produce a service is to organise a solution to a problem', and thus does not involve a third party, is true for pure services in particular, for a service firm to benefit from innovation such others are involved.

Keywords: innovation; appropriability; services; reputation

The biggest risk any company faces is the loss of its good name, and you cannot insure against that.¹

Services constitute over two-thirds of Gross Domestic Product in many countries and some 75% of employment. At least for the purposes of statistical offices, the service industries includes firms in the media, entertainment, finance, insurance, consultancy, health care, education and training, transport, tourism, IT and communication. Firms generally recognised as manufacturing firms increasingly rely on services related to their manufactured goods to generate revenue and profit. Offering a bundle of manufactured goods and services may stimulate customer loyalty or may increase switching costs so customers are tied to a service firm.

Scholars in management and economics have not devoted much attention to studying service firms, however. Rather, insights from manufacturing industries have been used to try to understand service firms (Drejer 2004). Managing a service firm differs substantially from managing a firm that manufactures physical goods (Ford and Bowen 2002). One area in which the discussion about innovation in services has been almost completely dominated by the insights from manufacturing industries is that of appropriability (Teece 1986). If a firm is able to appropriate the benefits of its own innovations this is thought to stimulate innovation in the first place. Some factors that influence a so-called appropriability regime are external to firm actions, while others may be shaped by a firm's strategic actions. The literature on innovation in manufacturing industries identifies a number of ways in which to appropriate innovation benefits. These are not equally applicable for service firms.

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This largely conceptual paper argues that, compared to firms in manufacturing, innovative service firms can and should rely more on the reputation they established to appropriate benefits from innovation. Having a reputation, for instance for developing new services of high quality at fair prices, will draw customers away from competitors even when the services these offer may objectively be of equal quality (Henard and Dacin 2010). This discourages competitors from offering competing services, leads to heightened loyalty and tolerance for occasional product failures, and allows for higher profit margins. Conceptually, however, not much is available in the literature that discusses how a firm's reputation (for innovation) affects its appropriability regime. This paper argues that in establishing or maintaining a reputation third parties are involved, and it argues how these come into play.

1. Services and innovation

Some claim that the difference between products and services is inconsequential: what a customer buys and considers value never is a product, but always utility, that what a product does for him. Others rightfully claim that offering a service involves very different capabilities than producing a good (Ford and Bowen 2002). There are differences between goods and services, from a management perspective, but to consumers products may not be fundamentally different from services (Dolfsma 2004). There is a continuum between them, with many goods being located in the middle (Johns and Storey 1998).

A service can best be defined as: 'an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between the customer and service employees, and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems' (Grönroos 1990). When the activities are of an intangible nature and no physical resources are exchanged, services may be called pure services. To the extent that activities of a tangible nature are involved and especially when physical resources are exchanged, services are located in between a pure service and a manufactured good.

Innovation by service firms has for a long time been considered absent or negligible (Kleinknecht, van Monfort, and Brouwer 2002) - innovative efforts of services sectors are underestimated (Brouwer and Kleinknecht 1997). This issue relates directly to the characteristics for services (Gadrey, Gallouj, and Weinstein 1995; Sirilli and Evangelista 1998; de Brentani 1989). Services, especially in their pure form, are:

- intangible;
- co-produced between firm and customer;
- perishable; and
- experienced or heterogeneous.

The provision of services to a customer is a process of co-production where a customer indicates what is desired and a service firm delivers. Especially in pure cases, such as a consultancy service or health care services, the active involvement of a customer is required in the provision of a service. Since a service firm responds to the situation or preferences of a customer, standardisation of a service may be more limited. In some cases each service provided may be different from the previous and by definition an innovation. The service firm may not recognise the service provided as an innovation for which there may be a larger market, however, as innovation in service industries often is of an *ad hoc* kind (Gallouj and Weinstein 1997; Kelly and Storey 2000; Sundbo 1997).

Although formalising the service innovation process benefits the firms involved (Froehle et al. 2000; de Brentani 2001), the characteristics that distinguish services from physical goods make it difficult to do so (Dolfsma 2004). Formalizing innovation processes, such as by using a stage gate model (Cooper 2008), hinges on the possibility for an innovation process to be divided into smaller stages. Natural ways to formalise the innovation process, thus allowing parties not immediately involved to evaluate the process, for services may not be obvious (Easingwood 1986; Debackere, van Loy, and Papostathopoulou 1998). The co-production nature of services is one reason for this.

Provision and innovation of intangible service is the result of co-production, with a limited role for a back-office. Diffusion of the innovation across a firm is, therefore, more limited as well (Nambisan 2001). In addition, the co-production and intangible nature of services further means that the quality of the service is dependent on the perception of the customer, *and* dependent on the willingness and ability of the consumer actually to *co-produce* (Ford and Bowen 2002; Mills and Morris 1986). A situation needs to be created, for example, in which the service provider and the client can interact properly, which may require special organisational efforts. Service innovations then often entail organisational changes in the firm providing the service, as 'to produce a service is to organise a solution to a problem [. . .] it is to place a bundle of capabilities and competences at the disposal of a client and to organise a solution' (Gadrey, Gallouj, Weinstein 1995; Gallouj and Weinstein 1997). The distinction between service ('product') innovations on the one hand, and process innovations on the other hand blurs (Bitran and Pedrosa 1998). Introducing a new style of hairdressing, for instance, often involves activities or utensils that differ from those previously used. The process and the service change simultaneously. When a service is more akin to a physical product, however, using a more formal approach to manage the innovation process can be more appropriate.

Sundbo (1997) has argued that the reason for service industries to be less innovative is that they are less likely to appropriate the benefits of their innovations due to the nature of services and the process of providing them (however, see Miles and Boden 2000). Indeed, the majority of service firms indicate that ideas they have for a new service often stems from competitors (Johnes and Storey 1998). The appropriability regime (Teece 1986) faced by service firms will affect the innovative activities and strategic actions, for instance in the extent to which they are likely to innovate. The next section argues that elements for an appropriability regime do not apply in the same way for service firms as they do for manufacturing firms.

2. The appropriability regime for services

David Teece's article of 1986 remains the focal point for any analysis of factors influencing the degree to which firms can appropriate benefits from innovation (Chesbrough, Birkinshaw, and Teubal 2006). Given that services become a larger part of the economy and also of manufacturing firms' revenues as well as profits, a discussion of the appropriability regime for services seems warranted.

Teece (1986) has suggested that the appropriability regime – circumstances that allow a firm to reap the fruits of innovation – consists of four elements:

- legal environment;
- dominant design;
- complementary assets; and
- nature of technology or knowledge.

Not all of these elements may be relevant for innovative service firms, or they may not be relevant to the same extent. Depending on industry and country idiosyncrasies, some elements may be more relevant for some firms than for others. In some cases, for instance, firms rely more on patents to protect their innovations (Arundel and Kabla 1998). The intellectual property rights in a country and the extent to which these are enforced matter. Some industries, such as biotech, rely more on newly developed knowledge that is of an explicit nature, which can be more easily imitated.

It is true that the appropriability regime for service industries is generally weak in many ways. Patents generally do not apply for service innovations, although the possibility of patents on business models might offer opportunities for firms in service industries in the United States, such as Amazon. Patent protection for business models can so far only be obtained in the United States at the moment, however, and even there discussion on their desirability is intense (Jaffe and Lerner 2004). Even though the criteria to obtain a patent that must be met, potentially limiting the number of patents for business models that will be granted, increasing leniency in using such criteria are observed (Jaffe and Lerner 2004). As more business models are patented in the United States, the 'prior art' that is used to evaluate each new patent application on its inventive step grows, decreasing the likelihood that a new application for a patent on a business model will be granted. The possibility of innovations in software to be protected under patent law, available in the United States only, creates opportunities for service firms particularly in Information Technology.

Copyrights offer a much weaker legal protection than patents do. The expression of an idea (for a new service) is protected, but that hardly prevents others from taking the idea expressed in a business plan or a script to start providing a similar service as the innovator. In many cases a service or the process of providing services is not expressed in writing, and so will not be protected by copyright. For manufacturing firms relying on a strategy that emphasizes trade secrets is an option to limit appropriation from both employees as well as customers. The effectiveness of trade secrets depends on the (labour) contracts that must be used to protect them be upheld in the courts. Contracts that include strict clauses may offer some protection, but even when they will not be challenged successfully in the courtroom, such contracts will de-motivate employees and limit the scope for cooperation (Miles and Boden 2000). Given the intangible nature of services and given that they are co-produced with the consumer; the possibility of using contract law to ensure that an employee or consumer does not appropriate an undue share of the benefits of an innovation from the innovating service firm seems more limited than for goods.

Teece also refers to 'dominant design' – the exact way in which consumers in the market want (features of) a good to look like and function. The firm that controls such a design will appropriate a larger share of the benefits. The haphazard way in which new services are often developed, makes the concept of a dominant design not as useful as it is for physical products. The ease with which versions of a service are made, often in a situation of co-production, is another reason why a dominant design may not arise. Services are much more tied to a more circumscribed geographical region than manufactured products – any market for services in which a dominant design is to emerge will be relatively smaller than for products. More fundamentally, the discussion of dominant design is predicated on the ability to distinguish product innovations from process innovations, which is something that need not be possible in case of services.

Teece's third element in an appropriability regime – complementary assets – similarly offers less opportunity to appropriate benefits for innovative service firms than for innovative firms in manufacturing industries. Complementary assets are assets a firm requires to bring an innovative good to the market such as strong marketing or production capabilities. Since services are provided

in a direct interaction with customers, complementary assets are not as likely to play a role as would be the case for newly developed physical products. The complementary assets are often commanded by the individual who actually provides the service in terms of her (tacit) knowledge about how to provide the service. Complementary assets that can be separated from the individual actually providing the services are likely to be generic and thus do not affect the appropriability regime.

Teece's 'nature of technology', the fourth element, may be what innovative service firms can play into to appropriate the benefits of innovative activities. Innovation in services often entails a change in the way in which a service-providing firm is organised. Service innovation, therefore, is much like a process innovation in manufacturing. Teece rightly claims that process innovations are relatively difficult to imitate by competitors. The co-production element in the provision as well as the development of new services, points to the relative importance of tacit knowledge, and thus would indicate that the nature of technology would allow a service firm to appropriate benefits from innovation. On the other hand however, services are co-produced with customers, while the process innovation in manufacturing is largely hidden from customers. In the case of services backward engineering is easier. The 'nature of technology' is thus again not likely to be an important source for service firms to appropriate the benefits of innovation.

Protection against imitation of an innovation for service firms is generally weak, therefore, when compared to firms in manufacturing industries (Levin et al. 1987). Thus, for service providing firms, Nambisan (2001, 73) suggests, 'the only way to maintain competitiveness is to pursue rapid innovation and to bring a continuous stream of upgrades that maintain the product's uniqueness'. An additional means for appropriating the benefits of innovation by service firms does exist, however.

3. Reputation

Despite the generally weak appropriability regime for services, 'innovation in services is [not] being substantially deterred by ease of imitation'.² There may be additional means for service firms to appropriate benefits from innovation, in particular its reputation (Henard and Dacin 2010). Terrill, for instance, is adamant: 'Image and identity are critical for any new service offering. [. . .] new services must rely on faith and trust to convince the customer to repeat the purchase' (Terrill 1992; Ford and Bowen 2002). De Brentani (1989, 244) concurs, saying, 'buyers frequently rely on company reputation when evaluating a new service.' Avlonitis, Papastathopoulou and Gounaris (2001) argue that a service firm can be overly innovative, thereby hurting itself in terms of financial indicators, yet in doing so making 'the strongest contribution on non-financial performance', including company image, building loyalty and attracting new customers. Innovative financial services will be imitated in only six months by competitors; the competitive advantage of being innovative here again is a firm's reputation, which is said to take at least five years to establish (Menhart, Ebersberger, and Pyka 2004). The importance of reputation is evident from the extent to which some firms use the legal possibilities available to protect the creative expressions that are a sign of their reputation. Design patents, but most importantly trademarks are used to establish and maintain a reputation. The fast-food chain, McDonalds, takes legal means to protect its reputation to extremes as it knows how important reputation is to maintain its position (McMillan 2001, p. 103).

Young firms and start-ups are especially in need of a strong reputation, and need to undertake a number of 'legitimizing activities' to build one (Delmar and Shane 2004; Gemser and Wijnberg 2001). Winning awards for newly developed products is a means to establishing a reputation

for younger firms (Reuber and Fischer 2006). Gaps in product announcements should be avoided as these will hurt a firm's reputation (ibid.). The relations a newly established firm maintains with clients and investors will also help establish their reputation, allowing it to develop further (Stuart, Hoang, and Hybels 1999; Podolny 1993; Reuber and Fischer 2006). Outside 'information evaluators' are needed for start-ups in particular – they have been found to have 'consistent and cogent effects . . . on the performance of entrepreneurial ventures' (Stuart, Hoang, and Hybels 1999, 344). Being involved in such relations will also allow start-ups to recognise entrepreneurial opportunities quicker (Ozgen and Baron 2007), and will allow them to survive 'hostile jolts' from their environment (Venkataraman and Van de Ven 1998). A firm's reputation will mean that it is more likely to persuade consumers of the value of the new service they offer, and at the same time it means that competing firms are less likely to be able to persuade the market that its services are to be considered. Relatedly, a firm's reputation may also decrease the costs that a firm needs to make (Podolny 1993).

Many scholars have thus pointed to this factor of a firm's reputation, but few have conceptualized it systematically (Reuber and Fischer 2006; Rindova, Pollock, and Hayward 2006).

Both providing a service and developing a new one is inseparable from organisational considerations due to the co-production characteristic of a service. As discussed above, this means considerable uncertainty is involved in providing services, for both the service provider as well as the consumer. The perceived quality of a service varies, which is a risk for customers as well as providers. Since services are perishable and cannot be produced for stock, investment risks are high when a firm wants to be able to provide services of predictable quality to its customers whatever quantity is demanded. Previous research has found that there is a direct relationship between the uncertainty about the quality of a good offered and the extent to which actors rely on the reputation of the supplier (Kollock 1994; Greenfield 1989).

The relation between the expected quality of a product and the reputation of a firm providing the good has been studied to some extent in the field of economics in terms of information asymmetries (Kirmani and Rao 2000). A firm is aware of the quality of the service on offer whereas the potential client is at most only aware of some part of it. The party possessing more information may be tempted to provide a biased or incorrect view – there is the chance of adverse selection of information (Stiglitz 2002). Potential clients may have no other choice but to use information about the reputation of a firm to predict the quality of the service on offer (Grossman and Shapiro 1988). Some findings indicate a relation between a firm's reputation on the one hand, and underlying production cost structures on the other hand (Wolinsky 1983). As cost for a firm of providing information increases (Faulhaber and Yao 1989), or the extent to which a firm needs to invest is highly special in the sense that these cannot be used for different goods or clients increases (Kihlstrom and Riordan 1984), a firm can be expected to provide genuine information (Cowen 2000). At the same time, Faulhaber and Yao (1989) find that the importance of a reputation *rises* when the cost of providing and using information decreases. Reputation is particularly important for a firm when it provides a service (good) that is costly to produce but cheap to provide information about.

There are other sources of information that agents may use in addition to prices (Kirman and Vriend 2001). Firms may seek to establish a reputation through the firms it cooperates with or through the consumers they have had in the past. In many cases, a third party may thus be involved in establishing or signalling a firm's reputation. Such a third party can be another firm in the focal firm's network (Gulati 1995), or a firm that is not one of the peers of the focal firm (Stuart, Hoang, and Hybels 1999). In the latter case, a relation with such an 'outsider' or third party can serve as a seal of approval (Stevens 1991). The World Bank (2000) has claimed that such 'reputation

agents' play an important role in the proper functioning of capitalist economies. Power (1997) even claims that developed countries experience what he calls an 'audit explosion' where third parties of a particular kind investigate aspects of a firm's reputation, and suggests that there can be too much auditing activities, destabilizing trust within the economy.

This could lead one to ask the following two questions:

- Under what circumstances do agents rely on the judgment of others to determine the value of a service to them?
- What kind of third parties do agents use to determine the value of the service provided?

4. Building reputation: selection systems and type goods

The issue, then, is to identify what relevant circumstances are for service providing firms to build a reputation. Owing to the intangible nature of services, outsiders will be more involved in establishing a reputation for service firms than for firms in the manufacturing industry, a reputation on the basis of which consumers buy from one service firm rather than those from a competitor. The first question, I suggest here, is best answered in terms of the often used categories suggested by Zeithaml (1981; 2000) distinguishing between search, experience and credence services (goods) (Girard, Korgaonkar, and Silverblatt 2003; Hsieh, Chiu, and Chiang 2005; Mattila and Wirtz 2002). Zeithaml (2000) has hinted at the ill-understood relation between the nature of a service (good) as indicated by the categories on the one hand and profitability of a firm supplying it on the other hand. Addressing the second issue mentioned above involves relating the classification for services (goods) as a dimension on the one hand to that of selection systems on the other hand. Relating these two concepts offers new light in the discussion about how firm reputations are established. Each of these concepts has been discussed at some length in the literature, but never in combination and never in relation to the way in which reputation is established such that a firm is better able to appropriate benefits from innovation.

The first dimension refers to the well-known distinction between search goods, experience goods and credence services (goods). A market, and a firm's relation with its customers, differs substantially for these different types (Dulleck and Kerschbamer 2006). The qualities of search goods are readily discernible, from their appearance, before purchasing them. The consumer can only determine the value of experience goods after purchase, by using or experiencing it. Credence goods are goods for which consumers find it next to impossible to determine the value, even after they were purchased. They, therefore, rely on the judgment of others besides the provider and himself to determine what the value is. The distinction between these types of goods is, in practice, a gradual one. The nature of especially pure services suggests that, except for the highly standardised ones such perhaps as garbage collection, they have experience or credence qualities.

These three types of goods coincide, I suggest, with three different types of selection systems (Wijnberg 1995). Wijnberg distinguishes between three selection systems each of which one may observe in market situations, and each having a different effect on the outcome of the market processes. In market selection, the ideal type of which is the perfectly competitive market, consumers select with reference to objective characteristics of a service (good), in an impersonal environment as it were. Anonymous agents select what is valuable to them and what is not; the valuation is directly reflected in the price. This selection system works well for search goods, as their characteristics are easy to determine. Market selection is selection of a good by the consumers

on the market without one of them being in a position to influence the process significantly, approximating the perfect market as known in the standard economics from the textbooks. In case of peer selection the selector is from the same group as those who select. In many real markets, consumers rely in their decisions to purchase for some goods on the judgments made by peers. Peer review in science is an example.

People may also, rely on others who are not a part of either the group that provides or of the group that purchases goods to make a judgment. Outsiders, or ‘experts’ such as accountants, rating agencies, or Michelin for restaurants, then select.³ If what Zeithaml (2000) observes – ‘service quality benefits are rarely experienced in the short-term and instead accumulate over time’ – is correct, services would in most cases be credence goods. Given that services are a co-production between service provider and customer, given that they are intangible, and specifically given thus (inter) subjective nature of their perceived quality, services tend thus to be experience goods or even credence goods in many cases.

Certainly where credence goods are involved, but where experience goods are involved as well, to a degree, customers’ valuation of services (goods) depends on what others state about it. Uncertainty, most notably about product characteristics, prevails in such a market and unique features of the selling party that signal his reputation are highly relevant as information is not asymmetrically distributed (Kollock 1994).

Figure 1 suggests feasible combinations of types of good on the one hand, and selection systems on the other hand. Since the distinction between different kind of goods and different selection systems are both ideal-typical, there is a larger area of possible combinations. The erratic shape of the grey areas, and the dotted lines separating these from their immediate surrounding, suggest that combinations of type of goods and selection systems vary to a degree depending on contingencies. Search goods are best selected in a system of market selection, experience goods best in peer selection, and credence goods best by expert selection. Cases outside of the shaded area are not sustainable. For services, and especially for newly developed services, only the latter two types of selection systems are relevant. Established services such as a hair cut may appear to come close to

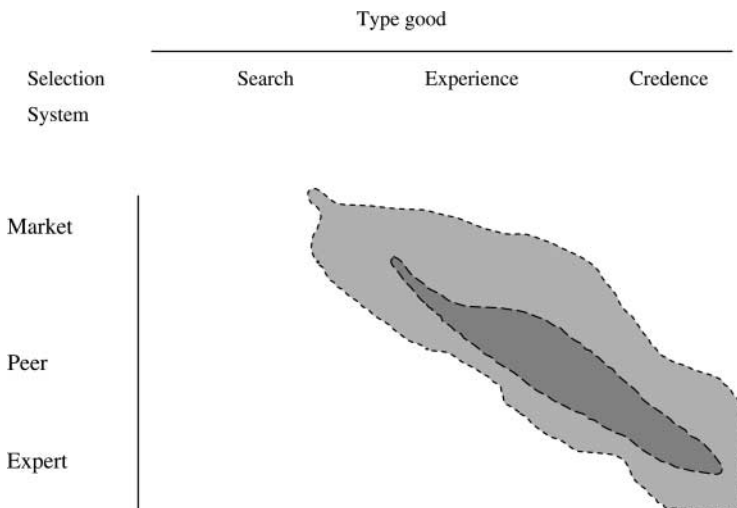


Figure 1. Selection, product characteristics and appropriation

being a search good, but the quality of a hairdresser is subjective and in many ways incomparable to the service provided by the same hairdresser to other customers. One would have to consult peers to ask about their experiences.

More complex, new and unique services are even more likely to be credence goods. External parties are needed to suggest the quality of the service likely to be provided. The reputation of the service firm is thus established by prior (and possibly continuing) involvement of third parties, but can be vulnerable precisely because of their role in establishing value of a credence good.

The quintessential example of a service may be a haircut. When a new hairdresser sets up shop, it is not known what the quality of his service will be. The hairdresser needs to persuade people to experience his services first. Only then may he hope to attract larger numbers of customers as these learn from their peers about the quality of the services rendered. Using peers to persuade a larger audience to demand the services of a firm is not an easy matter, however. The quality of a service is subjectively determined, and so the value that one person gives a service will differ from that of another. As information is distributed a-symmetrically and people's interests may not coincide, a person who considers making use of the services of the newly established hairdresser needs to grapple with uncertainty.⁴ The more a haircut is presented or seen as fashionable credence good, the more it thus becomes a service whose value cannot be determined by peers but is instead determined by experts. Commentators in magazines such as *Vogue* and *Vanity Fair* are such acknowledged experts who are thought to be better informed about what is fashionable. Indeed such experts help create fashion itself. Fashionable hairdressers will need to consider their relation *vis-à-vis* such experts when in actual fact aiming to attract customers. A firm may want to develop ways in which to try to influence such experts.

Consulting is a service that is, in many cases, a credence good. The value of consultancy for a firm may be difficult to establish even after the service was rendered. Effects will only be clear in the course of a number of years, and may be cancelled out by events that occur in the meantime. When a firm decides it needs the services of a consultant, the consultant's reputation will be among the most important characteristics to consider. Having a history as a consultant that draws many similar but especially of highly regarded ('celebrity') client firms certainly is important in persuading a new client. For (criminal) lawyers, similar to a consultant, being mentioned and recognised in certain parts of the media may be important as well. The media in this case is an external party that validates. Likewise, being admitted to or recognised in a trade organisation such as a bar association helps establish a reputation. In certain fields, being hired in the past by the government or another large (non-peer) customer, preferably in a high-profile case, may be such a sign that experts have found your services of value. It may be worthwhile for a firm to be hired under conditions that are less attractive and thus invest in one's reputation. The experts who do the selection and the established firm that seeks the opinion and validation of experts have an interest in restricting the number of experts.

For services, experience goods in combination with peer selection and specifically credence goods in combination with expert selection thus are sustainable. When a service (good) needs to be experienced first before its value can be determined, peers' opinion will matter a great deal in the evaluation of the service. In case of a credence service (good), the opinion of peers or the signals from the market (price) mean little as outsiders or experts, who are believed to be informed exceptionally well, are needed to make an evaluation. Reputation can be a key element in a firm's appropriability regime that can help it reap benefits from innovation. The two dimensions of type services (goods) and selection systems provide insight into how a firm may involve third parties to help establish or maintain a reputation.

5. Conclusion and further research

Services face an appropriability regime that is generally weak. Nevertheless, this does not prevent service firms from innovating. Being able to appropriate some of the benefits of innovation requires that customers recognise what a firm offers; service firms may have to rely heavily on their reputation to survive and grow. This paper offers suggestions for conceptualising the role of outsiders in establishing a reputation. It suggests which kinds of outsiders will be of import, and it suggests what selection mechanism the firm will face. It is argued that when buying experience goods people rely on peers to establish the value. For acquiring credence goods, outside experts are needed. Peers or experts help establish the value of services offered and as selectors play an important role for service firms. For service firms it is thus important to know what type good they offer. It informs them about the kinds of agents they depend on as customers try to establish a service's value. Buzz marketing, for instance, employing peers, will not work for credence goods but only for experience goods.

Obviously, more conceptual as well as empirical work is needed to understand the role of reputation, especially in the service sector and for start-ups. Such further research would study the contingencies that determine the exact way in which type of service (good) relates to type of selection system. What happens, for instance, when the status of the selectors is unclear and he may both be feasibly considered as an expert and a peer? Does the nature of the service (good) at hand help determine who is likely to come to be seen as expert (Agnew, Ford, and Hayes 1994)? May the perception by the consumers of the type of good at hand change over time, and what might be the role of selectors in such a process of change? May people's perception of services (goods) as either search, experience or credence goods be manipulated? If so, how? Are experts most likely to be structural holes (Burt 2004) or rather very centrally located (Sparrowe, Linden, and Kraimer 2001)? Two building blocks offered and discussed here are likely to be among key ones investigated when discussing appropriability issues due to a firm's reputation.

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Notes

1. Notes *The Economist*, 24 January 2004, 20.
2. The more localized nature of the market for services can probably help explain this as well (Miles and Boden 2000, 162).
3. In some cases the distinction between peer and expert selection is not clear-cut. Pulitzer prizes for journalists, Nobel prizes for scientists, Academy and Oscar awards for the movie industry, for instance, are awarded by a subset of peers who are highly regarded.
4. See Baliga and Sjöström (2001) for an application in work-settings.

References

- Agnew, N.M., K.M. Ford, and P.J. Hayes. 1994. Expertise in context. *International Journal of Expert Systems* 7, no. 1: 65–88.
- Arundel, A., and I. Kabla. 1998. What percentage of innovations are patented? *Research Policy* 27, no. 2: 127–41.
- Avlonitis, G.J., P.G. Papastathopoulou, and S.P. Gounaris. 2001. An empirically-based typology of product innovativeness for new financial services. *Journal of Product Innovation Management* 18, no. 5: 324–42.
- Baliga, S., and T. Sjöström. 2001. Optimal design of peer review and self-assessment schemes. *RAND Journal of Economics* 32, no. 1: 27–51.
- Bitran, G., and L. Pedrosa. 1998. A structured product development perspective for service operations. *European Management Journal* 16, no. 2: 169–89.
- De Brentani, U. 1989. Success and failure in new industrial services. *Journal of Product Innovation Management* 6, no. 4: 239–58.
- De Brentani, U. 2001. Innovative versus incremental new business services. *Journal of Product Innovation Management* 18, no. 3: 169–87.
- Brouwer, E., and A. Kleinknecht. 1997. Measuring the unmeasurable: A country's non-RandD expenditure on product and service innovation. *Research Policy* 25, no. 8: 1235–42.
- Burt, R.S. 2004. Structural holes and good ideas. *American Journal of Sociology* 110, no. 2: 349–99.
- Chesbrough, H., J. Birkinshaw, and M. Teubal. 2006. Introduction to the research policyth anniversary special issue of the publication of 'Profiting from Innovation' by David J. Teece. *Research Policy* 35, no. 8: 1091–9.
- Cooper, R.G. 2008. The stage-gate idea-to-launch process—update, what's new and Nexgen systems. *Journal of Product Innovation Management* 25, no. 3: 213–32.
- Cowen, T. 2000. *What price fame?* Cambridge, MA: Harvard University Press.
- Debackere, K., B. van Loy, and P. Papastathopoulou. 1998. Managing innovation in a service environment. In *Service management*, ed. B. van Looy, R. van Dierdonck, and P. Gemmel, 387–405. London: Financial Times/Pitman.
- Delmar, F., and S. Shane. 2004. Legitimizing first: Organizing activities and the survival of new ventures. *Journal of Business Venturing* 19, no. 3: 385–410.
- Dolfsma, W. 2004. The process of new service development. *International Journal of Innovation Management* 8, no. 3: 319–37.
- Drejer, I. 2004. Identifying innovation in surveys of services. *Research Policy* 33, no. 3: 551–62.
- Dulleck, U., and R. Kerschbamer. 2006. On doctors, mechanics, and computer specialists: The economics of credence goods. *Journal of Economic Literature* 34, no. 1: 5–42.
- Easingwood, C.J. 1986. New product development for service companies. *Journal of Product Innovation Management* 3, no. 4: 264–75.
- Faulhaber, G.R., and D.A. Yao. 1989. 'Fly-by-night' firms and the market for product reviews. *Journal of Industrial Economics* 38, no. 1: 65–77.
- Ford, R.C., and J. Bowen. 2002. Managing service organizations. *Journal of Management* 28, no. 3: 447–69.
- Froehle, C.M., A.V. Roth, R.B. Chase, and C.A. Voss. 2000. Antecedents of new service development effectiveness. *Journal of Service Research* 3, no. 1: 3–17.
- Gadrey, J., F. Gallouj, and O. Weinstein. 1995. New modes of innovation. *International Journal of Service Industry Management* 6, no. 3: 4–16.
- Gallouj, F., and O. Weinstein. 1997. Innovation in services. *Research Policy* 26, no. 4/5: 537–56.
- Gemser, G., and N. Wijnberg. 2001. Effects of reputational sanctions on the competitive imitation of design innovations. *Organization Studies* 22, no. 4: 563–91.
- Girard, T., P. Korgaonkar, and R. Silverblatt. 2003. Relationship of type of product, shopping orientations, and demographics with preference for shopping on the internet. *Journal of Business and Psychology* 18, no. 1: 101–20.
- Greenfield, L. 1989. *Different worlds*. Cambridge: Cambridge University Press.
- Grönroos, C. 1990. *Service management and marketing*. Lexington: Lexington Books.
- Grossman, G.M., and C. Shapiro. 1988. Counterfeit-product trade. *American Economic Review* 78, no. 1: 59–75.
- Gulati, R. 1995. Social structure and alliance formation patterns. *Administrative Science Quarterly* 40, no. 4: 619–52.
- Henard, D.H., and P.A. Dacin. 2010. Reputation for product innovation. *Journal of Product Innovation Management* 27, no. 3: 321–35.
- Hsieh, Y.-C., H.-C. Chiu, and M.-Y. Chiang. 2005. Maintaining a committed online customer. *Journal of Retailing* 81, no. 1: 75–82.
- Jaffe, A.B., and J. Lerner. 2004. *Innovation and its discontents*. Princeton, NJ: Princeton University Press.
- Johns, A., and C. Storey. 1998. New service development. *European Journal of Marketing* 32, no. 3/4: 84–251.

- Kelly, D., and C. Storey. 2000. New service development: Initiation strategies. *International Journal of Service Industry Management* 11, no. 1: 45–62.
- Kihlstrom, R.E., and M.H. Riordan. 1984. Advertising as a signal. *Journal of Political Economy* 92, no. 3: 427–50.
- Kirman, A., and N. Vriend. 2001. Evolving market structure. *Journal of Economic Dynamics and Control* 25: 459–502.
- Kirmani, A., and A. Rao. 2000. No pain, no gain: A critical review of the literature on signalling unobservable product quality. *Journal of Marketing* 64, no. 2: 66–79.
- Kleinknecht, A., K. van Montfort, and E. Brouwer. 2002. The non-trivial choice between innovation indicators. *Economics of Innovation and New Technology* 11, no. 2: 109–21.
- Kollock, P. 1994. The emergence of exchange structures. *American Journal of Sociology* 100, no. 2: 313–45.
- Levin, R.C., A.K. Klevorick, R.R. Nelson, and S.G. Winter. 1987. Appropriating the returns from industrial research and development. *Brookings Papers on Economic Activity* 1987, no. 3: 783–832.
- Mattila, A.S., and J. Wirtz. 2002. The impact of knowledge types on the consumer search process – an investigation in the context of credence services. *International Journal of Service Industry Management* 13, no. 3: 214–230.
- McMillan, J. 2001. *Reinventing the bazaar*. New York: Norton.
- Menhart, M., B. Ebersberger, and A. Pyka. 2004. Product innovation and population dynamics in the German insurance market. *Zeitschrift für die gesamte Versicherungswissenschaft* 93, no. 3: 477–519.
- Miles, I., and M. Boden. 2000. Services, knowledge and intellectual property. In *Knowledge and innovation in the new service economy*, ed. B. Andersen, J. Howells, R. Hull, I. Miles, and J. Roberts. Cheltenham: Edward Elgar.
- Mills, P.K., and J.H. Morris. 1986. Clients as partial employees of service organizations. *Academy of Management Review* 11, no. 4: 726–35.
- Nambisan, S. 2001. Why service businesses are not product businesses. *MIT Sloan Management Review* 42, no. 4: 72–80.
- Ozgen, E., and R.A. Baron. 2007. Social sources of information in opportunity recognition. *Journal of Business Venturing* 2, no. 2: 174–92.
- Podolny, J.M. 1993. A status-based model of market competition. *American Journal of Sociology* 98, no. 4: 829–72.
- Power, M. 1997. *The audit society*. New York: Oxford UP.
- Reuber, B., and E. Fischer. 2007. The good, the bad and the unfamiliar: the challenges of reputation formation facing new firms. *Entrepreneurship Theory & Practice* 31, no. 1: 53–75.
- Rindova, V.P., T.G. Pollock, and M.L.A. Hayward. 2006. Celebrity firms. *Academy of Management Review* 31, no. 1: 50–71.
- Shane, S., and F. Delmar. 2004. Planning for the market. *Journal of Business Venturing* 19, no. 6: 767–85.
- Sirilli, G., and R. Evangelista. 1998. Technological innovation in services and manufacturing. *Research Policy* 27, no. 9: 881–99.
- Sparrowe, R.T., R.C. Linden, and M.L. Kraimer. 2001. Social networks and the performance of individuals and groups. *Academy of Management Journal* 44, no. 2: 316–25.
- Sundbo, J. 1997. Management of innovation in services. *The Service Industries Journal* 17, no. 3: 432–55.
- Stevens, M. 1991. *The big six*. New York: Simon and Schuster.
- Stiglitz, J. 2002. Information and the change in the paradigm in economics. *American Economic Review* 92, no. 3: 460–501.
- Stuart, T.E., H. Hoang, and R.C. Hybels. 1999. Interorganizational endorsements and the performance of entrepreneurial ventures. *Administrative Science Quarterly* 44, no. 2: 315–49.
- Teece, D. 1986. Profiting from technological innovation. *Research Policy* 15, no. 6: 285–305.
- Terrill, C.A. 1992. *The ten commandments of new service development*. Management Review. 81, February: 24–7.
- Venkataraman, S., and A. Ven de Ven. 1998. Hostile environmental jolts, transaction set, and new business. *Journal of Business Venturing* 13, no. 3: 231–55.
- Wijnberg, N.M. 1995. Selection processes and appropriability in art, science and technology. *Journal of Cultural Economics* 19, no. 3: 221–35.
- Wolinsky, A. 1983. Prices as signals of product quality. *Review of Economic Studies* 50, no. 4: 647–58.
- World Bank. 2000. *Corporate governance*. Washington DC: World Bank.
- Zeithaml, V.A. 1981. How consumer evaluation processes differ between goods and services. In *Marketing of services*, ed. J.H. Donnelly and W.R. George. Chicago: American Marketing Association.
- Zeithaml, V.A. 2000. Service quality, profitability, and the economic worth of customers. *Journal of the Academy of Marketing Science* 28, no. 1: 67–85.