

**THE PROCESS OF NEW SERVICE DEVELOPMENT
– ISSUES OF FORMALIZATION AND APPROPRIABILITY**

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The Process of New Service Development

– Issues of Formalization and Appropriability

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Abstract Services form an important part of the economy today. Innovation for service firms is as important as for manufacturing, but the innovation process for service firms is comparatively little studied. In this paper, I review the literature there is on the innovation process for service firms, and make two suggestions for formalizing that process. The common thought that service firms do not innovate does not hold. Innovation is, however, often ad hoc for services, and it can therefore be difficult to measure firms' innovation efforts. These points are all related to issues of appropriability of the benefits of innovation in services. The two issues primarily discussed in this paper – the possibilities of formalizing and appropriating in case of NSD – are central for issues for service firms. It is here that this paper offers some contributions to the existing literature; it does not so much present an overview thereof.

Keywords: services, innovation, formalization, appropriation

Introduction

For a long time service innovation was perceived as a *contradictio in terminis*. Little or no new development seemed to be discernable in services, and certainly not worthy of the qualification innovation. Services, however, constitute a major part of total economic activity and employment in most economies, and offer an important contribution to economic growth and employment (OECD, 2000; Anxo & Storrie, 2001). In more recent times, it is becoming clear that a big share of R&D efforts in business is related to new service development (OECD, 2000; Howells, 2000). Partly this

realization may be related to the acknowledgement that the way in which innovation is measured may not be as appropriate to the heterogeneous group of sectors referred to as the service industries as it is to manufacturing (Kleinknecht, 2000). What is more, “the service component not only has become an integral part of most manufactured products but also has become the source of sustainable and strategic competitive advantage” (Kandampully, 2002, p.20; see also Howells, 2000). Just how innovation takes place in service sectors remains unclear, however. The literature on innovation and the management of innovation focuses on the manufacturing industries. Research on innovation & innovation management has suggested a number of very useful and theoretically well developed and embedded concepts to understand processes of innovation. Some, however, severely doubt the possibility of applying concepts developed in a context of manufacturing to service industries (e.g., Sundbo, 1997).

In recent years, more attention has been given to innovation in services. Scholars have realized that new services development (NSD) is an important phenomenon to study. At first, studies that sought to understand NSD attempted to apply the concepts developed for new product development to services. While it is clear that there is some mileage in using the concepts for innovation management developed in the context of manufacturing, it has also become clear that additional, and to some extent substituting, concepts are needed.

The characteristics of services are listed and discussed with a view to the innovation process and how to manage that, indicating why the innovation process of firms in service industries tends to be an ad hoc one. Recent contributions to the literature on NSD suggest that a more formalized approach has important advantages for the firm on a number of counts. These are surveyed, indicating directions for formalization of new service development. Considerations when implicating outsiders in the NSD process are discussed, considerations that relate to important trends and strategic issues in NSD, most notably related to the topic of appropriability.

Services

It is worth to define what a service is at this point. 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).

The characteristics of services help one understand how they are different from products and what that might entail for the process of innovation (Sundbo, 1994). Substantively, this contribution argues that

the organisation of the innovation process for services follows from the characteristics of services. For that reason it is useful to restate the characteristics of services briefly at this point (Gadrey et al., 1995; Chase et al., 1998; Sirilli & Evangelista, 1998; De Brentani, 1989); services are:

- Intangible,
- Co-produced between firm and customer,
- Perishable,
- Experienced or heterogeneous.

NSD: why it is mostly ad hoc

The first two characteristics mentioned would appear to be more fundamental than the latter two; in a way the latter two are derivatives of the first two. Intangibility refers to the fact that no physical object is exchanged in the service encounter. Instead, at the service encounter, provider and customer are involved at that same time in the activity of providing a service. Indeed, the customer is co-producing the service. Due to these two characteristics of services, it follows that services are perishable, or that, in other words, no production for stock may occur. The co-production element especially entails that each service is likely to be different from the next. As the provider of the services shapes the service in the presence of the customer, and as the customer may be actively involved in helping it shape, services tend to be heterogeneous and need be experienced before their value may be determined. At the very least, the experience that the customer has of the service is different for every customer; the quality of services is experienced differently. In many cases, however, the service provided actually differs between customers. This does not necessarily mean that there is a difference in the quality of the service provided, but the nature of the service that one customer receives might not be the same as the service another customer gets. Perception plays an important role due in part to the mostly intangible nature of the service. Quality control for services is thus difficult to achieve.

Another benefit of standardization, increased efficiency leading to cost reductions, is also much more difficult to realize for services. This is actually one of the main mechanisms behind the so-called 'cost disease' for services sectors that the economist Baumol has pointed to.¹ Services are, of course, provided by human beings directly, and so the variable costs outweigh the fixed costs of any capital investment, often by far (Nambisan, 2001; Chase et al., 1998, p. 216). Co-production in combination with intangibility means that (perceived) quality of a service, especially when it is new, may differ substantially across customers. In terms of the framework proposed by Gallouj &

¹ Baumol & Bowen (1965). Since it is difficult to improve the efficiency with which services are provided, but as wages and other costs of inputs increase nonetheless, there is pressure on profit margins for firms that provide services.

Weinstein (1997), following Lancaster (1966), the characteristics that one person seeks in a new service may be very different from those sought in it by another customer, even when it is provided by the same firm or employee of the firm, and even when it seems for most purposes to be the same product. Their framework, therefore, assuming some measure of comparability between (perceived) quality of products, seems more useful the more a service takes on product-like features.

In actual fact, of course, products and services can often not be distinguished so clearly (Cook et al. 1999). It is more useful to think about services and physical products as the extremes on a continuum (John & Storey, 1988, p.188). Likewise, the characteristics of services listed are related with each other. In much of the remainder of this contribution, I will discuss the case of services where these characteristics fully apply. To some extent these characteristics of services are self-evident. They do, however, entail a number of things for the innovation process. The implications of the characteristics of services for the innovation partly overlap with the implications for management of service organisations in general (Ford & Bowen, 2002). In this contribution, I will focus on the following implication of the characteristics of services for the organisation of innovations:

- Ad hoc nature of innovation / the difficulty of selecting projects
- Quality control / standardization
- Appropriability

It is now well understood that new service development tends for many firms to be a haphazard process (see, for instance, Gallouj & Weinstein, 1997; Martin & Horne, 1993; Kelly & Storey, 2000; Sundbo, 1997; Martin & Horne, 1993). Few firms use, let alone develop, methods to elicit ideas for new services, and develop & select among them subsequently. The nature of services is, given their characteristics, such that it is difficult to define moments that offer a 'natural' occasion for review. The innovation funnel (Clark & Wheelwright, 1993) and the Stage-Gate model (Cooper, 2001), for instance, are difficult to use as a tool for just that reason. The direct interaction between provider of a service and the customer and the absence of involvement of a back office means that a more systematic evaluation of the trajectory *by an external party* cannot be implemented. The essential feature of funnel and stage-gate models is that at regular moments in time, selection of ideas by individuals not involved in the development themselves can take place. At such points, progress can be monitored and (additional) resources can be committed (Tidd et al., 2001). Absent such moments, there is a tendency to simply go ahead; the 'sunk cost' consideration comes into play. Psychological considerations, personal attachment, can however override such a decision rule in the process of providing services (cf. Nambisan, 2001; Ford & Bowen, 2002). Certainly as the resources needed for NSD are much more limited than for NPD (De Brentani, 2001).

The direct interaction between customer and service provider actually tends to take shape over a longer period of time. This means that it can be difficult to establish the extent to which the service

provided is different from the services provided before by the service firm. An innovation as such may thus not be acknowledged. There is also a tendency not to observe the potential for the new service to offer value for other customers. Other customers of the firm might require a similar service, but the process to arriving at the point where this is acknowledged is relatively lengthy even when it involves the same person or group of persons who actually provided the service earlier. If a new service is not acknowledged as such, the likelihood that knowledge needed to produce it will not be shared is relatively large. Due to the nature of services, relying on knowledge that inheres in the individual(s) who have been actually involved in the service providing process, there is a tendency for individuals who have provided the services not to share their knowledge with others in the organisation. The fact that the knowledge needed remains tacit, uncodified, might be an important asset for the individual in his attempts to maintain or improve his position within the organisation. Direct interaction between customer and provider of a service, in relation to the perishability of a service that makes it impossible to store them, also means that it is complicated to deconstruct the service into modules and steps in the production process so that learning is allowed for. There is a tendency for service providers to reinvent the wheel. Possibilities of realizing economies of scale are, for this reason, therefore, available, but are more difficult to achieve than in manufacturing.

Given the characteristics of services discussed above a process of new service development that is most of the time ad hoc is not surprising. Prototyping, for instance, is “not possible” as Debackere et al. (1998) observe. Even when NSD is more formalized, the final stage of testing a new service is often done by simply bringing it to the market (Easingwood, 1986). Although services are often co-productions of provider and customer, “the customer may be a poor resource supplier” (Ford & Bowen 2002, p.463). New services are, however, developed relatively easily and cheaply, leading to “a proliferation of product variants” (Johne & Storey, 1998, p.185). As also testing a new service is relatively inexpensive, there is a tendency for new services being developed to be incremental improvements on services that are already available (Johne & Storey, 1998, p.208). As Levinthal (1998) argues, any new product in general may only *appear* to be a radical improvement from what was available earlier. In actual fact, in many cases, what is perceived of as a radical innovation just is a product that stems from a separate niche in the market and for some reason appears in a different niche where it meets with more abundant resources to be developed further or with a market with a latent demand for it. Barras’ (1986) model, which relies on the possibility to clearly distinguish, on the one hand, process from product innovation, and, on the other hand, incremental from radical innovations, thus seems to mostly have heuristic value.

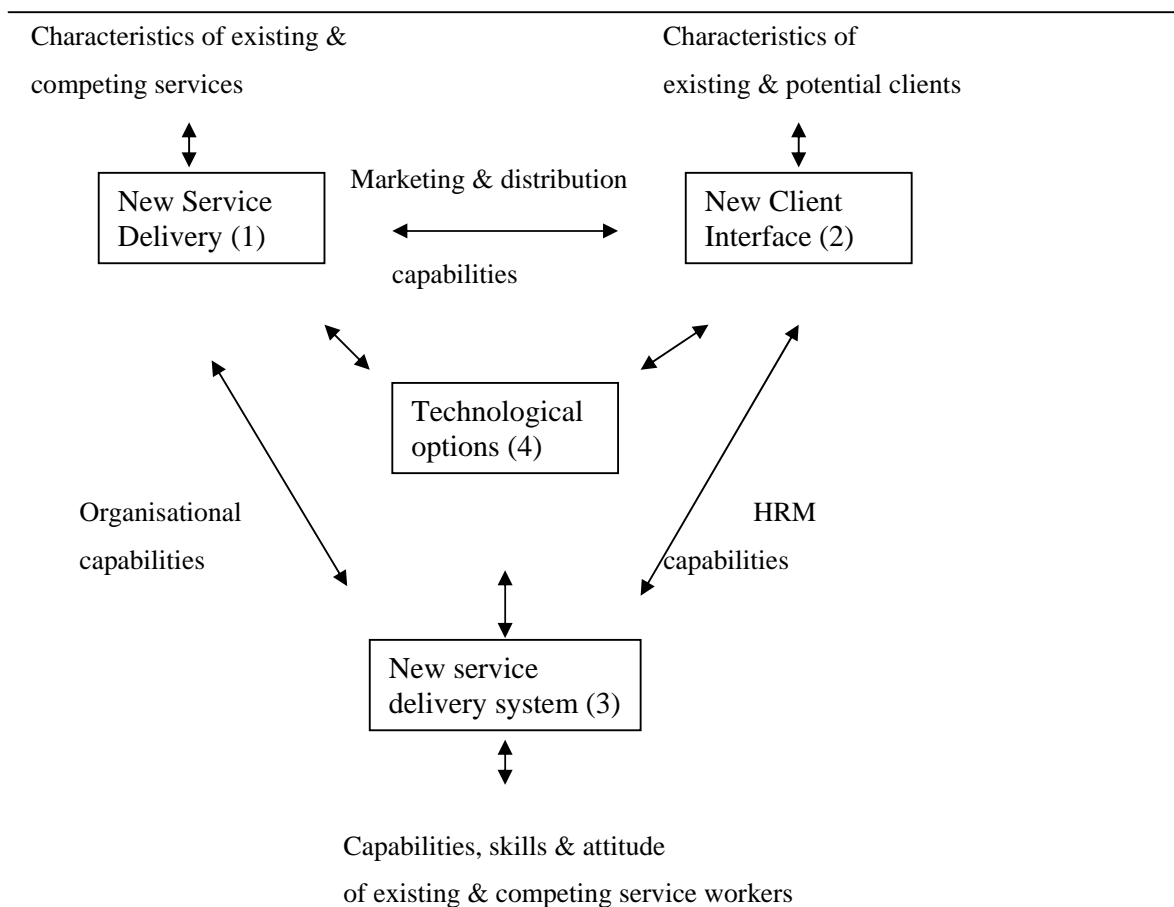
A fundamental tension exists in new service development. Due to the direct interaction between provider and client, services are often highly customized. At the same time, information about the newly developed service and about the customer’s preferences tends not to be widely and systematically shared (Nambisan, 2001, p.78). On the other hand, as is noted by many observers,

providing services in general, and providing new services in particular, is acutely about organizational aspects of the firm (Gallouj & Weinstein,1997). As Gadrey et al. (1995) observe:

“To produce a service is to organize a solution to a problem [...] it is to place a bundle of capabilities and competences at the disposal of a client and to organize a solution”

Others have also noted the crucial, almost indispensable role of including organizational aspects into an analysis of NSD where in an analysis of new product development this could legitimately be abstracted from (see Edvardsson & Olsson, 1996). Thus, for new service development, process and product innovations cannot easily be distinguished from each other (Bitran & Pedrosa, 1998):“the organizational aspect of innovation is particularly prominent in services” and yet management has or may have little knowledge of the particularities of the interaction between customers and providers. Especially the framework suggested by Den Hertog is relevant as it stresses the importance of different types of knowledge required in NSD. For this purpose the scheme that he provides is reproduced (Figure 1; den Hertog 2000, p.495) - Section 3 elaborate on this point.

Figure 1: A four-dimensional model of innovation



Source: Den Hertog (2000, p.495).

The discussion so far puts an early model of innovation in services – Barras (1986) – in a particular perspective. Barras builds on suggestions in Abernathy & Utterback (1978). Abernathy & Clark suggest a particular relationship during the development of a technology whereby product innovations dominate during the early phase of a cycle, and process innovations during the later phase. Where product innovations become less important and process innovations take over, a dominant design emerges in this technology life cycle. Barras suggests a reverse life cycle for services. Unlike for physical products, for services incremental process innovations first enter the stage. These aim to and also lead to efficiency improvements, whereupon more radical process innovations occur. Finally, in a third stage, product innovations are to be expected, improving the quality and use value of the good or – in this case – the service. For services, however, process and product innovations can be difficult or even impossible to distinguish (Bitran & Pedrosa, 1998), and so the suggestion Barras puts forward is to be questioned however important it may be as a heuristic device.

NSD: need for formalization

Some studies show that a more formalized NSD will increase the chances of success for firms involved (De Brentani, 1999, 2001). As financial services feature very prominently in empirical studies, and given the more product-like features of financial services, these findings might not be representative for a broader range of services across the heterogeneous range. Edgett (1994, p.48) claims “successful development of a new service is a controllable event”. So, at the same time as it is observed that NSD is mostly ad hoc, it has become clear in several studies that firms providing services fare better when they (a) are innovative, and (b) organize their innovation process and prevent it from being ad hoc process (Froehle et al., 2000; de Brentani, 2001). At the same time, Avlonitis et al. (2001), however, show that a firm providing services can be overly innovative, thereby hurting itself in terms of financial indicators, but making “the strongest contribution on non-financial performance”, including company image, building loyalty and attracting new customers.

Any division of an innovation process into separate phases or steps is an arbitrary one to some extent. The attempt is to make decision and selection processes about projects and resources more rational. As such, the approach is part of the literature on product development as a ‘rational plan’ (Brown & Eisenhardt, 1995). Seeking to define steps for the process of creating a new service is, however, even more arbitrary than for products. Particularly when services are more product-like, such as is the case for financial services, a more formal approach such as used in manufacturing becomes more appropriate (Vermeulen, 2001). Much empirical research on NSD looks at financial services. Johnes & Storey (1998, p.201) find the original framework suggested by Booz et al. (1982) as good a

starting point as any for assessing the possibilities of applying such a rational approach to NSD. To this they add that “while NSD has to follow the same generic process as NPD, the relative importance of each stage and how each stage is carried out is affected by the unique characteristics of services”.

The first two steps in the model – strategy and idea generation – are of equal importance for services. Screening is more haphazard due to the co-production aspect of services. Testing often does not enter the stage at all, while business analysis and development tend to be collapsed into the commercialization step. Even for products, the process as depicted in Table 1 seems overly linear. In actual practice, the process is often more organic. As services take on more product features, it will become easier to distinguish the different steps. Heuristically, if not in actual practice, this scheme will have value for firms developing new services, especially for the larger firms that provide product-like services.

Table 1: New Product Development Model

Stage:	Involves, a.o.:
• New Product/Service Strategy	Where does the firm want to/need to be in the longer term?
• Idea Generation	Generating full fledged ideas within the firm that fit the strategy
• Screening & Evaluation	Do the ideas have merit - preliminary market, technology assessment
• Business Analysis	Financial & business assessment
• Development	Developing projects from ideas
• Testing	Putting the product, the delivery system as well as the marketing of the product to a controlled test
• Commercialization	Full commercialization; feedback

Source: Booz et al. (1982), Johne & Storey (1998)

A focus on the sequence of activities required is the mirror image of another rationalist approach for new product development: the stage-gate approach (Cooper 2001). For Cooper’s model the focus is more on what is needed before the next step can be made; the focus is on criteria and the input needed to make the appropriate decision before making the next step. For New Product Development (NPD) the use of such a framework has proven to be highly beneficial (Griffin 1997). Examples of this use of a method developed for NPD for NSD are Bitran & Pedrosa (1998), Avlonitis et al. (2001), Ramaswamy (1996), and Scheuing & Johnson (1989). Firms in services sectors tend, however, not to

adopt such a system for formalizing the innovation process (Kelly & Storey, 2000; Johne & Storey, 1998; de Brentani, 1989).

Especially for NPD, a range of rationalist models have been proposed and developed. Next to the *activity-stage models*, of which Booz et al. is an example, and the *decision-stage model*, of which the stage-gate model is an example, there are three more kinds of models for NPD. An activity-stage model focuses on the tasks that need to be done at each stage; a useful feature of such models. Decision-stage models, rather, focus on the decision or evaluation points. The many different models proposed can actually be categorized into five different groups (Saren, 1984 discussed in Vermeulen, 2001). *Departmental-stage models*, the next group, view the NPD process as a series of steps to be undertaken by specific functions or departments. Actual activities in firms are not discussed. For services, it is clear that many different departments or functions are at involved in NSD. Although a clear separation of them is next to impossible, departmental-stage models do have an advantage in that they point to the different functions or areas of expertise that are required at different times during the process of developing a new product or service. *Conversion process models*, a fourth model, focus on the transformation of inputs into output. As models for developing a new product or service, these may not be very appropriate, but it is of import to think about the kind of activities in the production process needed when the product or process is fully developed. Small alterations in the product to be developed may have effects on the production process. Conversion models do not look at the innovation process as a rational process in the sense that goals are formulated at the start and evaluate progress in view of these. The rational element is not lost, however, but is employed in a more piecemeal fashion at various moments during the process. As a result, the use of conversion process models, which may be perceived of as disciplined problem solving in terms of Brown & Eisenhardt (1995), can result in more chaotic activities and can be less predictable in their outcomes. Their use can be costly. They would be more appropriate when more radical innovation is pursued, as in those circumstances outcomes are not easily predicted and no specific goals can be formulated. A final kind of models are *response models*. This outside-in kind of model assumes that organizations react to changes in their environment. Models in this latter category are reminiscent of (behavioral) psychology, with an emphasis on stimuli from the environment that need to be perceived or conceptualized, a response that needs to be developed and then adopted.

A general drawback of the five kinds of models is their linear nature. Steps are distinguished that need to be made sequentially. Especially in a rapidly changing environment, where for services the perception that the customer has of the service provided is difficult to control, linear models can be less useful. Nevertheless, the models are not without merit whatsoever. They help management focus on specific requirements related to either their organization (firm) or developments in the market. Models focusing on the integration of services and the learning involved or required in the processes are an important complement to these models, however. Due attention needs to be given to the information needed by the different departments, teams or individuals working either simultaneously

or concurrently as NPD or NSD. A model proposed by Den Hertog (2000) elaborates on the learning involved in NPD & NSD, and the kind of capabilities required and enhanced through it.

Even though dividing the NSD process into separate steps might only work if and when the service resembles a product more, there are other ways of developing new services more purposefully than is usually the case. Van der Aa & Elfring (2002) suggest internal benchmarking as an important case in point. Procedures for NSD could be institutionalized, such that the tacit knowledge dispersed across the firm that is acquired by the different employees of the firm can be put to good use by others. Sundbo (1997) also argues for standardization of processes. The model proposed by Den Hertog (see Figure 1) rightly stresses the importance of capabilities and skills that inhere in employees of the service providing firm to be duly taken into consideration, and even forming the basis for NSD (cf. Ford & Bowen 2002; Johnes & Storey, 1998, p.203). An important reason to stress the organizational element in this regard is, as Johnes & Storey (1998, p.186, italics added) point out, the need for the service provider to “develop not only the precise form of the service product, but also the appropriate *nature of the interaction* with customers”. They therefore claim that the “development of a new service is usually far more complex, conceptually, than the development of a new tangible product” (ibid.). Den Hertog not only provides a useful classification of different dimensions of innovations in services, but also suggests how they relate to each other and what inputs are needed for NSD. The four dimensions of innovations that he distinguishes are:

- Conceptual innovations, such as call centers, most consultancy;
- Client interface innovations, such as the introduction of account management systems in professional organizations, or EDI;
- Service delivery system/organization innovations, developments such as home shopping services, e-commerce may cause changes in the way the service provider is organized;
- Technological options, such as use of IT or GPS by supermarkets, banks or transport service providers.

Supplying real-life examples for these kinds of innovations in services proves difficult. Den Hertog (2000, p. 498) rightfully observes, “any service innovation involves some combination of the [four] dimensions of service innovation”. In practice new services are thus a mixture of the four types, which are more like ideal types that help one understand developments in the real world. If and when service providers aim for their goods to become more akin to physical products – striving for advantages such as cost efficiency, quality control, et cetera – the fourth source for innovation becomes more important. Each of the dimensions for innovation in services involves the development of capabilities of various kinds, mostly related to the management of people, be they employees or customers. What is of particular use for firms that provide services is that the kind of capabilities or knowledge needed

is related to the kinds of innovation, and what information the firm undertaking NSD requires about its competitive environment.

Meyer & DeTore (2001, p. 196) emphasize that when organizing the process of developing new services such that one creates a platform² on the basis of which to develop additional services, one does best to think of service platforms as the “flow of knowledge and information (in either tangible or intangible form) between the service provider and the service user”. The organizational element, stressing capabilities and skills, is paramount in their discussion. Meyer & DeTore (2001, p.192) describe platforms as a management method that are ‘crown jewels of the corporation’ thus are different from platforms for products, and do not have one of the key disadvantages of platforms for products: tendency towards uniformity of newly developed products.

Implicating outsiders

Suggestive of Pavitt (1984), Den Hertog (2000) lists 5 different sources of innovations: supplier-dominated innovation, innovation in services when the services themselves change, client-led innovation, innovation through services (e.g. as a consequences of training), and finally paradigmatic innovations. Useful as the distinction is, the reader may be misled by the fact that it is not always clear what the locus of the innovation actually is. Den Hertog (2000) elaborates this point somewhat further. For each of these kinds of innovations, different capabilities are needed to differing degrees of different people. Sometimes just of people involved in the provision of a service, sometimes also of the customer. At times the capabilities needed for a kind of innovation as distinguished by Den Hertog can be more in the HRM area, but usually, marketing capabilities tend to be required for most of them.

As services provision as well as new service development is inseparable from organizational considerations on the one hand, and, on the other hand, the actual provision of a service, but also the development of a new service entails the implication of the customer firms providing services may ask themselves the following two questions:

1. How do customers determine the value of the service provided?
2. What other parties, if any, are involved in the determination of the value of the service provided?

The first question, I suggest here, is best answered in terms of the category suggested by Zeithaml (1981) distinguishing between search, experience and credence goods. Search goods are goods of which the qualities are readily discernible, from their appearance, often before purchasing them. The

consumer can only determine the value of experience goods after purchase, by using or experiencing the good. Credence goods are goods for which a consumer finds it next to impossible to determine the value. He therefore relies on the judgment of others besides the provider and himself to determine what value the good has for him. These three types of goods coincide, I would like to suggest, with three different types of selection systems. Wijnberg (1995) has suggested a useful way to distinguish between three selection systems each of which one may observe in market situations, each having a different effect on the outcome of the market processes. For that reason, it is useful for the management of a firm to be aware of them. 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. This is the situation much akin to the perfect market as known in the standard economics from the textbooks. In real market, consumers rely in their decisions to purchase for some goods on the judgments made by people from among themselves before they purchase the good. This is a situation that scientists know from the way in which (most of their) intellectual output is processed for publication in scholarly journals, a selection system that can be characterized as peer selection. Thirdly, only people who are not a part of either the group that provides them judge some goods or of the group that purchases them. Outsiders, or ‘experts,’ then make the selection.

Figure 2: Selection, Product Characteristics & Appropriation



² A platform can be defined as “common architectures spanning multiple products that are implemented with

Figure 2 suggests feasible combinations of types of good on the one hand, and selection systems on the other. Cases outside of the shaded area are not sustainable; search goods are best selected in a system of market selection, experience goods best in peer selection, and credence goods best by expert selection. In relation to services, and especially newly developed services, only the latter two types of selection systems are relevant. As services are a co-production between provider and customer, their qualities cannot be determined prior to purchase, they cannot be searched for. Services are either an experience good or credence good. Established services such as a hair cut may appear to come close to being a search good, but the quality of a service provided in case one would move to a different hairdresser is subjective and in many ways incomparable to the service provided by the same hairdresser to other customers. More complex, unique and new services are mostly credence goods. External parties are needed to suggest the quality of the service likely to be provided. The reputation of the actual provider of the service might substitute for the expert opinion, but such a reputation is usually highly vulnerable and can only be established by prior (and most of the time: continuing) involvement of third parties.

Terrill (1992, p.27) is adamant about this point: “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” (cf. Ford & Bowen, 2002). De Brentani (1989, p.244) concurs, saying, “buyers frequently rely on company reputation when evaluating a new service”. Thus, management had better consider the combination of type of good and selection system faced with the (new) services provided. If experts are indispensable, they had better be identified, well informed and possibly be given a preferential treatment.

Some strategic issues and trends in NSD

Some claim that either a lack of innovation in service firms, or, if it exists, the ad hoc nature of the innovation process is due to the weak appropriability regime for most services (Sundbo, 1997). This view is supported by findings about the majority of service providing firms indicating that the majority of the ideas that they have for creating a new service stem from competitors (Johnes & Storey, 1998, p.223). While the diffusion of new ideas may benefit the general public, an individual innovator could stand to benefit more if appropriability were better ensured. Indeed, the discussion about appropriability conditions for newly developed services is likely to be an important issue to be discussed in the near future in the literature on NSD. Surveying the relevant empirical literature, Miles & Boden (2000, p.162), however, argue that “the view that (product) innovation in services is being

common subsystems and subsystem interfaces” (Meyer & DeTore, 2001, p. 189).

substantially deterred by the ease of imitation” is unsubstantiated, even though newly developed services can easily be replicated, and intellectual property rights (IPR) only offers loose protection from illegitimate copying. As new services have no technical component, patent protection does not apply. Services rarely involve the explicit expression of a new idea, which would be a requirement for it to be protected by copyright law. When no physical ‘thing’ is involved, design patents do not apply, and if no symbol of some kind is used trademark law is of no use. Only trade secrets may apply.³ From the point of view of IPR, services’ appropriability regime must be classified as weak, or in box 1 in Table 2. Miles & Boden (2000, p162) suggest that firms providing services use other means of appropriating the benefits of an innovation. They also suggest that too much emphasis on trade secrets can be counterproductive, as it may de-motivate employees and limit the scope of cooperation.

Business partners and customers may be locked in to a relationship with a firm providing a service. The strategic use of standards and protocols can be used for this purpose, especially when IT is used. The information collected in the past about a customer and his preferences can be brought to bear when a new service encounter occurs, increasing switching costs (Dolfsma, 2004). Another means by which to create an entry barrier is to strategically use the features of the selection environment that a service faces. Especially if ‘experts’ are involved in the valuation of a service, a firm has an interest in influencing these parties and in creating or influencing an third party mechanism whereby the perception of the quality and value of a service in positively influence.

IT has given service providers a range of possibilities to standardize their processes and so increase their efficiency. The financial industry is one of the biggest investors in IT. Software developed especially for a bank, for instance, is a crucial factor in its competition with others. Software is protected under copyright law, and recently also under patent law. As copyright law only protects from illegal copying a particular expression of an idea, and not the idea itself, it is thought to offer little protection. Since most software has a technical component, for instance because it can only run on a specific computer, or needs a physical interface, it is now protected under patent law as well. Patent law protects the idea, albeit for a shorter period of time. The strategy of embedding the service into software with a technical component in order to increase the possibilities for seeking legal protection against copying by others without due payment is termed ‘firmware’ (Andersen & Howells, 2000).

The possibility to patent business models in the United States is another hotly debated example, not just in academia, but also in the (business press).⁴ Copyright is being continuously expanded in terms of scope and duration (Lessig, 1999, 2001). While these changing legal opportunities for appropriating the benefits of innovations might not be in the general interest (Dolfsma, 2004b), they do seem to benefit the innovative firm, at least in the short run. For service providing firms this equally holds. What is more important to discuss is, however, the effect these

³ For an overview of the different IPRs, see Andersen & Howells (2000).

expanded legal possibilities have for the kind of or direction in innovation one can expect. What seems obvious, and can already be discerned, is that product features are added to services in order that they can be better protected using IPR. As innovation in services is nearly always as much about implementing changes in the organization as it is about developing a new service *sec*, and so the possibility of patenting business models in the US can be expected foremost from service firms. There is likely to be a flurry of applications for patents on business models from such firms. The expansion of copyrights is likely to benefit service firms especially.

Whether or not the expansion of IPR will benefit service firms in the end, and whether or not the general interest is served remains an open issue. IPR could, once a kind of equilibrium state is reached, mean that firms face higher costs simply for producing as licenses and royalty fees increase. In the light of Miles & Boden's (2000) observation that a weak IPR regime for services is not (perceived as) an impediment for them to innovate, the push by many governments to strengthen IPR and thereby to try to stimulate innovation in a knowledge-based economy, which is mostly a service-economy, is put in a somewhat different perspective.

Some concluding remarks

This contribution argues that there is a close relationship between the characteristics of services and the process of developing new services. That process differs from the process of developing new products. Although there are benefits to formalizing the process of New Service Development (NSD), in many cases firms providing services innovate haphazardly. The possibility of formalizing NSD in a manner known from manufacturing, developing new products, is questioned. In addition to the rational planning approach suggested in that kind of literature, elements of what Brown & Eisenhardt (1995) call communicative and disciplined problem solving approaches are more relevant for NSD. Some of these are suggested and developed in this paper, specifically to the extent that they implicate outsiders in the process of NSD. These approaches relate to the *process* of NSD more, keeping in mind the close relationship between NSD and organizational change, and not so much on the (financial) outcome as a more rational approach would (Brown & Eisenhardt, 1995). Knowledge, capabilities and skills play an important role in this regard. In addition, one should consider the nature of the service good provided (an experience, but most of the time a credence good), and the selection environment it will face. These determine in large part the possibilities for a firm to appropriate the benefits if its NSD efforts.

⁴ See, e.g., The Economist "Who owns the knowledge economy?" April 8, 2000, pp. 17, 85-89.

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