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University of Bath

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HOW DIFFERENT IS PROFESSIONAL SERVICE OPERATIONS MANAGEMENT?

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Abstract

This paper uses an in-depth case study of a UK legal partnership, LP, as the basis for exploring the characteristics of a professional service operation (PSO) and thereby establishing how these characteristics frame the distinctive nature of professional service operations management (PSOM). The results suggest (for legal services) three specific refinements/extensions to existing models of the PSO. First, the asymmetrical nature of professional-client exchange has significant implications for service package and process characterization (i.e. less customer driven and, where variable, driven in large part by professional choice). Second, there are likely to be a substantial number of less variable and faster throughput processes within a PSOs portfolio – creating the opportunity for significant commoditization. Third, the nature of professional status and organisational structure (i.e. the partnership model) need to be more fully incorporated in any definitional model. The study then highlights two distinctive aspects of PSOM; suggesting a more contingent perspective on professional-client exchange and ways to accommodate the trade-offs inherent in seeking efficiency and effectiveness in a professional partnership organization.

Keywords: case/field study, organizational behavior, productivity, service operations

1. Introduction

In 2010 one of the UK's largest law firms published research highlighting that legal service providers were increasingly facing a buyer's market, with downward pressure on fees and corresponding need for increased efficiencies. A few months earlier, in late 2009, a LexisNexis study of the US legal market had revealed significant client dissatisfaction with how law firms had responded in terms of their costs and billing structures to the economic downturn. Yet, although becoming more efficient is increasingly seen as *the* strategic challenge in legal – and other knowledge-intensive (Drucker, 1999) – services, there has been relatively little OM research (Machuca *et al.*, 2007) in this sector. This article explores the characteristics of a specific professional service operation (PSO) in order to better understand any distinctive challenges associated with professional service operations management (PSOM). Previous OM research has defined the PSO as a generic service type with high levels of customer contact/service customization and fluid/flexible processes with low capital/high labor intensity (Wemmerlöv, 1990; Silvestro *et al.*, 1992; Schmenner, 1986, 2004). Similarly, as professional services are generally understood to be different so PSOM is understood to require a different approach. Typical discussions emphasize the “guiding, nudging, and persuading” (Malhotra *et al.*, 2006, p.175) of professional employees rather than, for example, the implementation of standard operating procedures (Kellogg and Nie, 1995, p.329). This article is organized around two guiding research questions: (1) Do the characteristics of a specific professional service operation (a law partnership) reflect the generic characterizations of the PSO type? (2) How, if at all, do these observed characteristics shape the distinctive nature of PSOM?

The setting for this confirmatory, albeit without formal hypotheses to be tested (Smith *et al.* 2009), and exploratory research seeking to develop novel insight, understanding and theory enhancement (Karwan and Markland, 2006), was the UK legal services sector.

Lawyers are a classic professional type; drawing on a common body of regulated knowledge and standards (in this case by the UK Law Society). Moreover, as highlighted above, legal services in the UK (and most advanced economies) have faced a series of regulatory and competitive challenges that have lead many to reconsider fundamentally the nature of their operations management (e.g. Susskind, 2010). The Legal Partnership (LP) case study, a mid-sized firm with 342 employees, 42 partners and 17 distinct and largely autonomous service practices, provided the specific empirical grounding for the work. Although in many ways a typical law firm, the particular characteristics of the LP ‘story’ offered a revelatory case study (Yin, 2008) of the (changing) composition of a PSO and the tensions inherent in

the process of becoming more efficient and effective (i.e. PSOM). Detailed analysis of the operational 'building blocks' of the PSO (its customer interaction/customization, processes and employee behavior) and managerial attempts to influence these elements provided a persuasive example (Siggelkow, 2007) for answering the research questions.

The results suggest that (in legal services) the extent of client interaction and service package customization is highly variable – with numerous examples of professionals deliberately distancing themselves from their clients. Similarly, the majority of LP processes were not necessarily slow and highly variable (and where these characteristics did appear to hold, individual professional inputs played at least as significant a role as customer inputs). The study also highlighted distinctive aspects of PSOM by suggesting a more contingent perspective on professional-client exchange and articulating specific OM trade-off's associated with professionals and partnership structures.

2. Conceptual Framework

A review of the literature was used to create an initial conceptualization of the PSO and PSOM. This structure allowed for a set of specific interview questions to be formulated and provides a structure for analysis and discussion of the findings.

2.1. Defining the Professional Service Operation (PSO)

The PSO is well represented in a range of generic SOM classifications (Wemmerlöv, 1990; Silvestro et al., 1992; Schmenner, 1986, 2004) with the interaction between two defining characteristics to the fore: (1) high levels of customer contact/service customization and; (2) fluid/flexible processes with low capital and high labor intensity. Inevitably, approaches, which illustrate commonality across all services, have limitations when it comes to specific types. In particular, they minimize the distinctive nature of 'professional' employees (Goodale et al., 2008, p.669) and the organisational structures that are commonly adopted to deal with them. Drawing on the professional service firm (PSF) literature, in particular Von Nordenflycht's (2010) recent review of the field, these factors were included as the third element of the initial conceptualization.

Customers and Customization

Customers play a critical definitional role in most discussions of service operations. Sampson and Froehle (2006: 331) for example argue that the "presence of customer inputs is a *necessary* and *sufficient* condition to define a production process as a service process".

Similarly, Nie and Kellogg (1999, p. 349) found that customer influence is “the most important characteristic in affecting OM strategies and decisions”. The exact degree and nature of the customer input has been the subject of debate and classification. Wemmerlöv (1990) for instance, categorized both the interactive medium (i.e., physical presence, indirect technology-mediated communication, or no interactions) and its object (e.g. information, goods, physical self: Lovelock 1992, 1996). Others, noting that it is not the physical presence or otherwise of the client that influences variability (Froehle and Roth 2004), have emphasized the relative ‘activity’ of the interaction (e.g. Mersha, 1990). The combined logic, that control with high levels of customer input variability is more challenging (Schmenner 1986) and reduces the opportunity to deploy standardization and automation, explains how and why high customer contact (front-office) and low contact (back-office) services are routinely ‘de-coupled’ (Metters and Vargas 2000). With specific reference to the PSO, it is widely accepted that this type of operation has the ‘most’ customer interaction and/or customization (e.g. Silvestro et al., 1992; Schmenner, 2004). Kellogg and Nie’s (1995, p.326) expert service type for example is one where “the service provider and customer work together to define, produce and deliver” the service package (i.e. supporting facility, facilitating goods, explicit and implicit services: Fitzsimmons and Fitzsimmons, 2006).

Processes

Regardless of whether it is cause and/or consequence of high levels of customer input variation, PSO processes are generally understood to be more labor intensive and largely independent of significant amounts of capital - be it inventory, equipment and/or infrastructure¹. Of course, labor intensity in a PSO is not simply a matter of the relative number of employees. Deploying a medical metaphor, Abbott (1988, pp. 40-49) explained professional service interactions as a process of diagnosis, inference and treatment. Diagnosis takes information in, treatment brings instructions back out but critically, inference is the reflective process that professional staff engage in “when the connection between diagnosis and treatment is obscure” (p.49). In sum, the interaction between high levels of customer interaction/customization and situations where individual (and/or team) judgment have a central role in service delivery contribute to a high degree of service process “variation” and a relatively slow “throughput time” (Schmenner 2004).

¹ n.b. there are operations like hospitals “where a large fraction of the workforce has advanced degrees but where nonhuman capital, such as medical equipment and a large, specialized building, is also critical” (Von Nordenflycht, 2010).

Professionals and Professional Organizations

All expert or knowledge intensive workers 'locate' their judgements within a particular knowledge system; what makes professional employees different is that this body of knowledge is externally (but non-governmentally) regulated and controlled in its content and application (Von Nordenflycht, 2010). These 'knowledge monopolies' (i.e. you cannot practice as a lawyer in country A unless you gain entry – passing exams, apprenticeship, etc. - to country A's legal system) exclude nonprofessionals and are central in the maintenance of high labor costs. Professionals also adhere to explicit external codes of ethics and implicit norms that guide appropriate 'professional' behavior. These external 'controls' can act to minimize the influence of managers in a PSO (Harvey 1990) but also reduce the need for, and associated costs of, internal service quality monitoring (Goodale et al., 2008, p.670). It is also important to note that although the high labor costs are clearly problematic – especially from an OM perspective (Verma, 2000, p.14) – the relatively low capital intensity of most PSOs, and correspondingly limited role for external investors, does allow for the adoption of alternative organizational structures. The partnership structure in particular (i.e. where the firm is owned by a number of senior employees) helps resolve many of the traditional 'managing professional' problems but represents a very different context for deploying OM tools and techniques. One significant implication for instance is that the PSO typically focuses less on process standardization and automation and more on a form of leveraged work management where greater use is made of lower cost (e.g. junior lawyers) and/or differently (less) qualified (e.g. paralegal) employees (Maister, 1982; Haywood-Farmer and Nollet, 1985).

2.2. Defining Professional Service Operations Management

Where the characteristics described above hold, they suggest that the PSO represents a "distinct environment for managing operations" (Goodale et al. 2008, p.670). Indeed each of the defining characteristics suggests specific challenges for the nature of PSOM.

Managing Customers and Customization

Clients (and managers: Patterson, 2000) can find it very difficult to evaluate professional service quality (e.g. was the lawyer's advice responsible for the failed negotiation?). One consequence of "opaque quality" (Von Nordenflycht, 2010, p.161) is that PSOs signal quality through all aspects of their service package (i.e. mechanisms not directly related to the core

'explicit' service). For example, organisational reputation (Greenwood, 2007) and employee appearance and behaviour are part of the implicit service offering. Equally, attractive offices and meeting rooms may provide the "flexibility to adapt to individual customer's varying needs and facilitate the customer influence" (Kellogg and Nie, 1995, p.328) but it is also very important that, as something that clients can observe and evaluate, supporting facilities signal appropriate quality.

Managing Processes

Limited repetitive learning opportunities, lack of task standardisation and reliance on professional judgement makes work difficult to pace; with complex assignments often taking place over an extended timeframe with uncertain and highly variable completion times (Sasser et al., 1978). As a result, planning and control in a PSO tends to measure time inputs to a project rather than outcomes.

Managing Professionals and Professional Organizations

PSOM is often presented as a version of the 'cat herding' problem (Lowendahl, 2000, p.68); OM scholars have concluded that since "standard operating procedures may not be effective" (Kellogg and Nie, 1995, p.329) PSOM is about "subtle influences" (Goodale et al. 2008, p.670) or "guiding, nudging, and persuading" (Malhotra et al., 2006, p.175). For example, the mobility and transferability of employee skills and the lack of effective mechanisms for embedding professional judgment in operating equipment, products and 'routines' increases employee bargaining power ("the assets go down the elevator each night and the firm can't control whether they come back": Von Nordenflycht, 2010). The partnership structure can be very advantageous in such circumstances; creating incentives for senior employees to stay and, by controlling access to partnership status, creating highly competitive rituals (e.g. 'long hours' work culture) for promotion. From a PSOM perspective, a relatively stable and 'powerful' workforce means that level/chase capacity strategies tend to predominate.

3. Research Method

This paper analyses data from an in-depth single-case study at LP, a British legal partnership. Selecting a single case does not provide the confidence of a large *n* sample and inevitably raises concerns over generalizability but three factors meant that single case research was deemed particularly appropriate for this study.

First, although professional services are under-researched in OM there is extant theory. As a result, it was necessary to undertake both confirmatory, albeit without formal hypotheses (Smith et al. 2009), and exploratory research seeking to develop novel insight, understanding and theory enhancement (Karwan and Markland, 2006). Such a process, probing the boundaries of a phenomenon and integrating information from multiple sources (Eisenhardt, 1989; McCutcheon and Meredith, 1993; Stuart et al., 2002), was helped by the rich data associated with an in-depth case study.

Second, a key aim was to explore the nature of PSOM within a specific organizational and institutional context. Lawyers are clearly a 'classic' professional type; drawing on a common body of regulated (in this case by the UK Law Society) knowledge and standards. Moreover, legal services in the UK faced a series of regulatory and competitive challenges² leading nearly all firms to reconsider the nature of their operations management (e.g. Susskind, 2010). An in-depth study of a single setting was also important in allowing the researchers to become familiar with the details of the profession. Neither were legally qualified but both had prior research experience of legal services and had read extensively in the socio-legal studies literature. In other words, the researchers were able to bring to the case study a version of what Siggelkow (2007: 21) described as an 'open but not empty mind'.

Third, the specific LP case was selected because it offered a persuasive example (albeit not quite a 'talking pig': Siggelkow, 2007, p.20) of the challenges associated with PSOM. Over the last 10 years significant effort had been focused on making LP 'more corporate'.

Substantial organic growth, with the creation of numerous additional service lines was complemented by a number of regional and national acquisitions. Computerised time recording and legal precedent management systems had been introduced and the firm had developed a range of higher volume legal offerings incorporating digital document processing and call centre technologies. Despite this ambition to be more business-like, the internal organisational structure remained typical for a legal partnership: equity partners, salaried partners, junior lawyers - working toward partnership - and unqualified trainees undergoing on-the-job training, together with support staff, paralegals, administrators, and secretaries. Thus although in many ways a typical law firm the particular characteristics of the LP 'story', the changing composition of a PSO and the tensions inherent in the process

² To increase competition the U.K. government changed the law to remove organizational constraints in the legal profession (n.b. the UK Legal Services Act (2007) has not yet been implemented but is widely known as Tesco Law after the supermarket chain who could begin to offer legal services).

of becoming more efficient and effective, provided an exemplary setting for answering the research questions.

3.1. The Case Study

Law Partnership (LP) is a British legal partnership formed more than 20 years ago with the merger of two 'traditional' legal practices. At the time of the study, it employed 342 people on 5 separate sites, with 49 partners and a turnover of approximately £27 million. For many years it had been run "rather like a club" (Chairman) with an informal structure, no clear strategic priorities and little emphasis on managerial skills or productivity. Over the last 10 years however, under the direction of a new Managing Partner and the influence of client/market pressures, LP had been focused on transforming their operations and management of those operations. Two new 'volume' service offerings had also been launched. The first (designated as service G in the paper) was a (non-contested) debt recovery service for corporate customers and the second a 'fast-track' real estate service (service O). By 2009, LP had 17 discrete 'service lines' (e.g. Tax, trusts and wills, corporate law, employment litigation, etc.) and the overall leverage ratio, i.e. the number of non-partner lawyers to equity partners, was 4.77:1³. Table 1 provides a summary of the staff across each service line.

³ In 2009 the UK range was from 11.8:1 to 1.4:1.

Table 1. Distribution of service delivery employees⁴ across 17 discrete service lines

Qualifications	Role	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Total
Full Legal	Partner (Equity)	1	1		1	2	3	2	1	1	1	1			1	1	1	1	18
	Partner (Other)	2		2		2	2		2	2	3	2	2	3	1	1	2	2	28
	Associate	2					5	2	2		2			2	1	4			20
	Solicitor	1				3	3	7	3	2	1	2	4	2	2		6	2	38
Intermediate	Paralegal/Legal Secretary				4			46								54			104
Legal	Qualifying	2				2	5	10			2			1	1	9	1		33
Non legal	Consultants						3	2	2							1			8
Total		8	1	2	5	9	21	69	10	5	9	5	6	8	6	70	10	5	249

Leverage	Other Lawyer/Equity Partner	5	-	-	-	2.5	3.33	4.5	7	4	6	4	-	-	4	5	8	4	4.77
Ratio	All Staff/All Partner	1.6	-	-	4	1.25	3.2	33.5	2.33	0.66	1.25	0.66	0.5	1.33	2	34	3.5	0.66	4.41

⁴ Excluding employees in general administration and other support roles (e.g. Finance, HR, IS)

3.2. Data Collection

The empirical data were gathered at multiple points in time and over a period of more than two years. Several sources of evidence (Yin, 2008) were used including documentation from interviews and meetings; field notes, outputs from participant workshops, and documents from the organization (e.g. data on staff utilization, billing rates, etc.). Forty-two semi-structured interviews were recorded and transcribed. First, a range of semi-structured questions following the themes of the initial conceptualization (i.e. customer interaction/customization, processes, professionals and structures) was employed. All grades and types of staff were interviewed, from the Chairman and Managing Partner through Team Leaders, long serving salaried and equity partners, and recently appointed junior lawyers, to support staff in HRM and Marketing and secretaries. Conducted in employees' offices and in the firm's designated meeting rooms the interviews varied in length from 30 to 90 minutes. The process began with 6 senior personnel who were asked to nominate others, and so on, using a snowball method of sampling. Second, the authors participated in two partner conferences. In the first a series of workshops and discussions were used to generate a picture of the processes and service package elements. Finally, a large number of informal conversations, performance data, emails, observations of employees at work, and documentation including Internet pages, newspaper reports and marketing brochures supplemented these data.

3.3. Data Analysis

In order to produce a contextually detailed account of the case study, the data were carefully analyzed in a multi-stage process; supported by the qualitative data analysis tool, TAMS (Text Analysis Mark-up System) Analyzer (www.tamsys.sourceforge.net/) with broadly similar functionality to QSR NVivo (Weinstein 2006). As an illustration of the initial analytical process, the total interview data set of 267,420 words was made up of 7526 different words. The next stage was to code the data, initially based on the definitional models and then subsequently in a more open fashion based on the researchers reading of the data. The analysis then entered a more iterative stage involving the creation of a number of meta-code sets, analysis of co-coding and the addition/further refinement of codes; cycling back and forth between the primary and secondary data and the literature. The software contributed to the process by producing word, code and co-code (i.e. text where more than one code was allocated) counts, permitting meta-code groups to be created, allowing for code searches against different text markers (e.g. 'partner' versus

'para-legal' responses) and producing software) graphs summarizing code patterns, etc. Coding maps were used to support the process of creating meta codes (i.e. via code aggregation and refinement/revision) and exploration of key interactions (i.e. overlapping codes/code sets and weak/strong co-coding).

To further improve the reliability and validity of the results the second partner conference was used to present key case findings. The results were presented in order to give an opportunity to comment on (but not veto) key observations and initial conclusions. In terms of generalization, the single case study alone is not enough for a generalizable theory, but can be seen as steps towards generalization and in this case testing the applicability of a framework in a specific context.

4. Findings

The case data will be presented using the ex-ante definitional themes: the nature of the PSO (i.e. customers, processes, professionals) and the nature of PSOM (i.e. managing customers, processes, professionals).

4.1. Customers and Customization

At an aggregate level, market/client pressure had had a profound impact on LP:

"I would say that a year ago, 18 months ago, one client in ten would say "well I'm not happy with that, I need a fixed cost and I'm only going to move from that fixed cost if you can demonstrate objectively that the assumptions you've based it on really have turned out to be incorrect". Now I'd say 9 out of 10 clients are asking for fixed costs rates." (Partner, Corporate Finance)

With respect to specific client interactions however, the interview and secondary data analysis suggested a very mixed picture of responsiveness and accommodation of client requirements. In order to explore the idea of customer interaction/customization in a more structured manner therefore, Kellogg and Nie's (1995: p.325) suggested process for applying the SP/SP matrix was followed: the major service offerings were identified, key elements of the service package defined and then the level of customization determined. Having analysed the primary and secondary data relating to each of the 17 service lines (aggregated in TAMS via their distinct text markers) for judgements of relative customization (i.e. against other aspects of the service package). After checking the initial results with partners at LP, the process revealed some consistent patterns with the 17 LP service lines combining into 5 (marginally different) service package bundles (see Table 2).

The primary customization locus for most of the service offerings was a combination of the *explicit* service provided by LP and the *facilitating goods* (i.e. those inputs, largely informational) provided by the customer. The levels of customization exhibited by these two dimensions of the service package were complementary; with the exception of the volume service offerings where the *supporting facilities* (e.g. workflow systems) were adapted in line with the explicit services to accommodate specific client requirements. None of these service package elements were classified as unique on the customization scale because there were consistent data suggesting a form of customization cap. Some of these findings relate to aspects of the legal process (such as the externally regulated body of knowledge, the UK's common law structure, etc.); others emerged from discussions regarding the generic informational asymmetry between client and professional – effectively restricting the level of customization that *most* (especially individual) clients can invoke; and others reflect commercial pressures imposed by clients/markets:

"You can't spend hours and hours drafting from scratch a complex share purchase agreement which is bespoke for that transaction and is heavily engineered to make sure it covers every base because frankly you just haven't got the time to do it because you won't be paid for that time." (Corporate Finance Partner)

There was also evidence to suggest that the more specialist service offerings offered less customization – reflecting the narrower range of activities they were engaged in and more self-selection by the customer:

"..if they come to see me for X, they know what they want and are going to get!"
(Specialist Solicitor, Marine Law)

Table 2. Major Service Offerings at LP by Service Package Customization (unique – considerable – limited – generic) profile

<i>Type LF service line reference</i>	<i>Explicit services.</i> Observable benefits, comprising essential service features	<i>Facilitating goods.</i> The items provided by the customer	<i>Implicit services.</i> Psychological benefits or extrinsic features	<i>Supporting facilities.</i> Physical resources in place to offer service
Broad + specific <i>A, F H, I, J, K, L, M, N</i>	Traditional offerings (e.g. TTW, Estates, family, corporate, commercial, etc.) with regional reputation + specific experience (e.g. child custody, charities). Many clients with extended firm/lawyers relationships. Considerable	Information inputs unique to each customer. Considerable	Trust in general service offering reinforced as result of sense of specific experience. Satisfaction with service in part the result of sense of relationship (e.g. lawyer with awareness of family events). Limited/Generic	Apart from option for visiting client off-site; little or no change to generic supporting facilities (e.g. no change possible co-located specialist commercial team (H) with dedicated, secure storage space). Limited
Specific <i>B, C, D, Q;</i>	Small focused offerings in specific areas of law (e.g. immigration, IPR, international probate, etc.). Considerable/Limited	Information inputs unique to each customer but specialism reduce potential variety. Considerable/Limited	Trust in service offering directly related to specific lawyer experience (i.e. "I have seen this before"). Generic	As above plus occasional change to specific infrastructure for D's transactional work. Limited
Specialist <i>E</i>	Maritime law specialism. Narrow problem space means key individuals are 'visible' to potential clients. Considerable/Limited	Information inputs still unique to each customer but specialism reduces potential variety Considerable/Limited	Sense of unique offering reinforced by reputation and thought leadership of key individuals. Limited/Generic	As above. Limited
Litigation <i>P</i>	Specialist litigation team primarily supporting commercial offerings. Outcome metrics possible (i.e. win/lose, settle, etc). Considerable	Information inputs unique to each customer. Considerable/Limited	Trust in service offering reinforced as result of sense of specific experience. Generic	As above. Limited
Volume Specific <i>G, O</i>	Volume service offerings (Real Estate, Debt Recovery). Benefits measured by process, service, outcome metrics. Considerable/Limited	Client provides highly structured bundles of information. Limited	Trust in volume offering partially result of ownership by a 'proper' lawyer firm. Explicit service design logic. Limited/Generic	Adaptive case management software infrastructure and paralegal/assistant support. Run from a 'back-office' site. Considerable/Limited

The *implicit service* offering was largely generic in that it was the general reputation of the firm and/or the specific reputation of individual lawyers (e.g. their higher education) that featured in all customer interactions. Where there was some evidence of limited customization in the implicit service offering, it was largely a form of marketing. For example, there was evidence that the reputation/thought leadership of key individuals within the firm were being presented to some specific clients as a form of reassurance, market signalling, etc. – even if these individuals would never be involved in that clients work. Finally, with the exception of the volume service offerings discussed above, the *supporting facilities* were broadly consistent. LP has 3 ‘appropriate’ offices (i.e. smart waiting areas, private meeting rooms, etc.). There is also a common IS infrastructure for time recording and access to the firm database (i.e. law library, standard legal precedents), a competent web presence, document production, etc.

4.2. Processes

Although some data suggested that (as predicted by theory) high variability/slow throughput processes predominated in LP, the totality of evidence indicated a greater diversity. Few of the service lines had any formal process maps (only the volume offerings) and managerial controls emphasized inputs (time recording) and outputs (billable hours) rather than workflow. At the same time the interviews revealed ample evidence of standardised techniques, rapid pro-forma projects and highly repeatable activities. To supplement these data, workshops held at a 2-day partner conference were used to decompose each service line into its constituent process parts (see Figure 1). Partners from each service line were asked to rate their offering, on a 1-10 scale, in terms of relative throughput time and degree of variation. Some (e.g. B, C, K, L, N, O, P) provided a single rating but when a range was generated, the participants were asked to identify sub-components with stable ratings: for example, service line A was analysed as comprising 3 distinct ‘processes’ (A1, A2, A3). These categorisations were then combined and reviewed by the whole partnership as a mechanism for confirming relative positioning.

Figure 1. Decomposing and Categorising LP Processes

At an aggregate level, the pattern of these process classifications suggested confirmatory evidence of a general positioning along the efficient diagonal (i.e. from bottom right to top left). Equally striking was the absence of ratings at the higher end of the scales (especially process variation). When discussing this pattern, some participants argued that the apparent 'cap' on higher levels of customization reflected the informational asymmetry between client and professional – effectively restricting the design input that *most* clients can make – and the 'custodian/interpreter of a body of knowledge' role of legal professionals. Even in those legal service processes that involved seemingly bespoke one off performances (such as appearing for a client in a courtroom), the extent to which the client influenced the nature of the process was limited by a range of external factors; including the 'common law' basis of the UK legal system.

There was no formal mapping of workflows and therefore no direct classification of precedence relationships (e.g. do higher levels of customization occur at the 'front end' of the process?) or relative capacity allocations (e.g. what percentage of time is spent on higher variability processes?). Interestingly however, the analysis did provoke extended debate about how much of what LP professionals did was not particularly unique work:

Don't forget, we're doing something which any solicitor should be able to do. Issuing a claim form and getting a judgement is not difficult so what's difficult? What's difficult is doing it at a price" (Partner, Volume Operation G)

Comparing the process patterns with the leverage profiles (grouped by customization of service package) revealed no obvious patterns (Table 3).

	<i>Broad + Specific</i>									<i>Specific</i>				<i>Sp</i>	<i>Liti g</i>	<i>Volume</i>	
	<i>A</i>	<i>F</i>	<i>H</i>	<i>I</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>M</i>	<i>N</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>Q</i>	<i>E</i>	<i>P</i>	<i>G</i>	<i>O</i>
Processes	3	2	3	2	2	1	1	2	1	1	1	2	1	2	1	3	3
Leverage	1.6	3.2	2.33	0.66	1.25	0.66	0.5	1.33	2	-	-	4	0.66	1.25	3.5	33.5	34

Table 3. Process Count (P) and Staff/Partner Leverage Ratio (L)

Offerings E and J for instance were similar sized services; both with leverage ratios of 1.25 and 2 process types. In J there was a clear distinction between certain professional tasks and others where greater standardization was possible. E had the marginally less customized offering and yet they adopted the most flexible structure: a kind of job-shop model held (i.e. everyone potentially completed all tasks with numerous basic administration and very short-cycle tasks being undertaken by senior lawyers).

4.3. Professionals and Professional Organization

Although less than half (42%) of LP employees were fully qualified lawyers, 75% of the firm had some form of external accreditation (including paralegal, legal secretary and adjacent professions: corporate finance, etc.). Many of the interviewees were explicit in arguing that 'being the best professional' was their principal concern:

"the firm is technically excellent, there is no question about that, there are some very good people, and there is a very strong belief that if you're technically excellent that's what it takes; all people want is good law" (Litigation Partner 3)

Interestingly, as further evidence of the centrality of practicing law to most members of LP, the most recent organisational structure had resulted in the creation of 6 management teams (each incorporating several service offerings) because of the limited number who were as interested in 'managing' as they were in being lawyers. Beyond the self-evident finding that being a professional was very important to most of the interviewees (e.g. most had committed their higher education and working lives to qualifying for and then

practising law), notions of professional identity were also strongly connected to core PSOM issues, like client relationships, task complexity and individual productivity.

4.4. Managing Customers and Customization

The evidence regarding the management of client interaction was also mixed. It has already been noted how lawyer identity and client relationship were strongly co-coded in the data but more specifically there was the frequent suggestion that being responsive and flexible to client requirements was a large part of what it meant to be a professional (e.g. "I'll always answer the phone to client x – they have my home number"). As an, albeit indirect, illustration there was the suggestion that many lawyers felt uncomfortable dealing with invoicing issues ("...traditionally lawyers do not like billing clients they don't like talking about money": Director of HRM) precisely because arguing over money did not fit with their 'caring' model of a professional client relationship:

[W]hy do people become nurses, certain people do, certain people don't, and I suspect the type of people who become lawyers, coupled with the nature of the training they receive ... [means] that client service and care is the holy grail..." (Corporate Partner 2)

Contradicting this perspective, there was also a distinct group of lawyers (many with 'unique' skills or reputation, etc.) who presented themselves as being deliberately distant from their clients:

"I've got one or two clients here who I don't particularly care for and every so often I sack them or tell them to go elsewhere!" (Partner and Head, TTW)

Even those lawyers who subscribed strongly to a professional customer care ethos, did not then connect this to customization for specific client requirements:

"we offer an ongoing training programme ... the aim is to get clients working smarter so that there is less input on our part in sorting out a lot of the crap that's given to us, you know we say ... this is what you need to give us and we give them an instruction sheet and checklist so there isn't a lot of time wasted filtering through piles of paperwork, we get it presented to us in the way that we want." (Specialist Practice Associate)

The role of quality signalling through specific marketing of implicit aspects of the service package was discussed in section 4.1. More generally, the firm's reputation – based in part on its longevity, its position in various legal rankings, the individual reputation and educational background of key individuals, etc. – was widely discussed as playing a significant part in providing prospective and current clients with confidence in their service offerings. Similarly they had an impressive headquarters building and had recently acquired

what some partners described as a 'hunting lodge' in an expensive office block in the heart of the City of London.

4.5. Managing Processes

Although, as a partnership organization, LP had restricted possibilities for accessing external capital, there had still been significant investment in three distinct types of information processing technology in the last 5 years. Workflow and case management systems (which draw on a precedent library), time recording software⁵ and a CRM system to support client interactions and marketing. As observed in the leverage (table 1) and customization (table 2) data, automation is integral to the volume offerings (G and O) but, despite the availability of and potential for automation across all work and supporting processes, the actual adoption of these technologies varied substantially across the service lines:

"XX is the firm wide package ... it will make an enormous difference for fixed fee work [where] you do not want to reinvent the wheel every time but I'm up against a wall of partners who think you can't manage it because every case is different when in reality they're different sometimes" (Partner Property Team)

The benefit of this kind of process automation was clear to some but questioned by others:

"you cannot do the job in an efficient manner unless you distil down the knowledge that lawyers have in a form which is able to be reproduced and used by others, which essentially means precedents and means robust and appropriate IT to enable those precedents to be utilised in the most efficient manner" (Corporate Partner)

"there are things that we can standardize but we deal with human beings, we deal with people and individuals and they are not bits on a conveyor belt" (Equity Partner TTW)

More generally, outside the volume operations, there was a widespread acceptance that legal processes are highly variable. At the same time it was noted by many that much of this was driven by professional performance, rather than necessarily by customer needs:

"if one of us is, God forbid, is knocked down by a bus, would I know how my nearest and dearest colleagues routinely run their files, and the answer is no, I don't" (Associate Solicitor, Banking and Finance Team)

⁵ An industry standard time recording system set up to log seven hours of work each day in seventy six-minute blocks accompanied by a verbal description of each separate job. At the end of a working day individuals posted a report of their activities, and this could not be sent until seventy units had been recorded on to the system. The software allowed them to open, record their work and then close a series of clock folders as they began and finished different activities.

“if you wanted a share purchase agreement and you asked, say, two or three of the partners of the corporate team, you’d probably get three different versions of an agreement” (Partner, Corporate Team)

In seeking to control this variability, some service lines (and some individual lawyers) provided a structured interface for their clients – so that critical information was presented on time, in the correct format, etc. More generally however there was relatively limited specific focus on operations management:

“we specialise a fair amount in service lines but not in process” (Director of Marketing)

Because of this variability the key planning and control device was the measurement and management of time inputs. Each fee earner was supposed to achieve 1300 ‘billable’ (chargeable) hours per annum - this ‘number’ was derived in part from an annual benchmark study conducted by an international accountancy firm. The firm was then able to derive indicative utilization figures as a basis for comparing individual and service line performance. The numbers reflected a range of factors (including specific market conditions, sales and marketing capability, etc.) but reviewing the annualised percentage utilisation for 3 different service lines provides another indication of process variability (see figure 2).

Figure 2. Monthly Billable Hour Utilization Figures (3 service lines)

The range of utilization figures also illustrates a significant challenge with resource allocation. SL3 (a corporate finance service offering) for example, clearly worked in a

market with significant peaks and troughs and yet they operated using a fixed capacity model (x partners, y associates, etc.). This is only an exaggerated version of the challenge faced by nearly all the service lines as they sought to cope with periods of (occasionally significant) over and under-utilisation.

"We have a number of people whose ... capacity utilization is relatively low but most people are working 50% or below in terms of chargeable hours capacity" (Strategy Director)

"if they haven't got enough work to do and they're trying to justify their existence .. that's a horrible position to be in" (Managing Partner)

4.6. Managing Professionals

The LP hierarchy – and many of the lawyers themselves – broadly agreed with the 'cat herding' notion; the Chairman talked about the Managing Partner having "quite a difficult team to manage because .. a lot of them are ... *very lawyerly*". Over a 5-year period LP had made significant changes to both increase market/client alignment by creating fee earning service line units and, by increasing the ratio of junior professionals in each unit, to achieve greater leverage of expensive staff:

"..we were relying on these very large deals coming in and it's interesting of course that the good thing about that is you had a really good sound base of very experienced lawyers that people were happy to instruct and they knew the work was being done by senior lawyers but what we started to do was to tack on more junior lawyers and we were able to leverage work and take work at a lower level" (Chairman)

The firm's attempts to reach its billable hour targets provided an interesting illustration of the challenges associated with introducing more formal systems and procedures. Despite the 1300 'billable' hours target, in the 2 annual periods covered by the study the average number of hours billed per lawyer had been 960 and 990. As a result this had become a focal issue for senior managers (supported by the partnership board who could directly connect this to earning potential). Of specific concern were the twin processes of recording time and then the process of 'writing-off' potential fee income at various points between the collection of time data and the receipt of payment. There was an acceptance that 'all firms do write-offs' (Head, Corporate, Commercial & Employment) and 'you'll never bill for 100% because life "aint like that"' (Partner, Real Estate) but the extent to which time spent on jobs was written off at LP was generally perceived by the management as problematic. While estimates of the recovery rate across the business varied from 75% to 80%, there was considerable variation between individuals and between teams. Of course, establishing how much had been written off was dependent on measuring time inputs and therefore senior

managers consistently emphasized the importance of conscientiously keeping accurate time records.

"We always say, and I mantra-like, like most partners do say to junior staff members, it doesn't matter if you don't think the amount of time is recoverable, you've got to put it down because if you don't put it down I can't make the assessment as to whether to bill them" (Partner#2, Corporate Team)

"...I've banged on about for a long time - if it takes you 5 hours to write a one paragraph letter, record the 5 hours...." (Head, Tax, Trusts and Wills)

Even with the introduction of an apparently rigid system, analysis revealed considerable scope for individual adaptation. Most admitted to making mistakes and making things up, and to continuously making individual judgement calls about what reasonably counted as 6 minutes worth of work.

"I might have 3 calls in 6 minutes and the clock will be running and they will be charged 1 unit for 3 calls, not 18 units" (Partner #1, Corporate Team)

"If an e-mail comes in that says 'yes', some will bill that as a 6-minute unit, and do an e-mail out saying 'OK', some will bill that as a 6-minute unit. Which means if you're on £200 an hour and you've spent 2 seconds receiving and transmitting ... the client gets a bill for whatever that equates to - £40" (Partner #1, LP Site 2).

The billing process also incorporated a range of local customizations, such as the accuracy of the initial estimates, professional intuitions' regarding what a job was worth, how peers and superiors would regard the bill, and guesses about what the client would pay. Arguably the principal managerial influencing mechanism involved aligning the partnership's incentive structures. Such an approach was relatively successful with junior staff, where being seen not to follow process effectively "will impact your promotional prospects" (Associate Solicitor #1), but proved much less effective with established equity partners. Several interviewees highlighted how certain senior and older colleagues were deliberately resistant to requirements for process discipline. For example, a small number of generally senior individuals continued to fill in hand-written time sheets and then transferred this information on to the electronic system.

5. Discussion

In this section, reflections on extant conceptual insights are combined with case findings to answer the guiding research questions. First, do the characteristics of a specific professional service operation, a law partnership; reflect the generic characterizations of the PSO type? Second, how, if at all, do these characteristics shape the distinctive nature of PSOM?

5.1. What are the characteristics of a (legal services) PSO?

Limits on Customization

In line with the Kellogg and Nie (1995) suggestion that “not all services rendered by ‘professionals’ necessarily involve a high degree of customer influence” (p.326) there was evidence of both significant *and* limited levels of customer interaction/customization. The degree of ‘reactivity’ appeared more contingent than the generic PSO models allow. Individually, a professional’s specialism and/or expertise and/or experience (and the relative scarcity of this capability) created the opportunity for some lawyers to treat customers with a degree of distance. As an illustration, one specialist marine lawyer with an international reputation, compared herself to a surgeon who must not get “too close to the patient” for fear that it would influence her judgement. Moreover, the specialist offerings were more likely to be approached by specialist clients who, in turn, were looking for a more or less specific service. Additionally, the regulated and often routine nature of many areas of the legal ‘body of knowledge’ (e.g. standard contracts, precedent ‘libraries’, planning procedures, standard approaches to debt recovery, etc.) further constrained the influence of the customer to “specify where the service is to be performed, what is to be done and how it is to be done.” (Kellogg and Nie, 1995, p.331). On the client side, there was plentiful evidence of inexperienced and/or unprepared and/or emotional, etc. clients deferring to the legal professional in nearly every aspect of the service design and delivery. This ‘passivity’ was generally less evident with organisational clients – especially those with in-house legal counsel who could balance some knowledge asymmetries - although there was still evidence of corporate clients not having the basic information needed to proceed. Only the volume services incorporated explicit processes for client service customization; reflecting both the entrepreneurial nature of the two lead partners and the requirements of more automated and highly leveraged service systems.

Portfolio of Process Types

Just as Kellogg and Nie (1995, p.325) noted that one firm could hold several positions on their SP/SP matrix it is acknowledged that service firms will often have a mix of different service operations types within their overall organization (Schmenner, 2004). The LP analysis confirmed the existence of a portfolio of process types inside a single PSO; suggesting, more surprisingly, that *the majority* of the processes identified were characterized as (relatively) standardised with (relatively) limited customer interaction.

Moreover professional preference, rather than customer interaction/customization or external constraints (e.g. court availability, judicial rulings, etc.), seemed to have a significant influence on much of the observed process variability and slow throughput speed. To illustrate this notion of preference, there was evidence of lawyers adapting their availability for specific clients, the approach they took and the timing of particular work based on their personal perspective (e.g. level of interest) regarding the matter.

Professional Identity and Organizational Structures

Despite evidence of a profession facing transformational challenges, the LP case highlights that regardless of managerial intent the PSO can still struggle to become more efficient and effective:

"we've done the work the same way for a long time and it works jolly well and the clients like it and they're happy and we're reasonably profitable so why change."
(Private Client Partner)

A key explanation for this inertia in the face of market pressure and organisational opportunity can be found in the characteristics of the professional employee herself. The competitive nature of qualification for a career like law requires extended focus on the body of knowledge. Professional identity is thus typically bound up in technical aspects of the work and framed by ethical and other standards that are enforced by a body external to the firm:

"My experience so far is that lawyers on the whole will discuss work issues and technical issues more than they'll discuss organizational issues, and those types questions, so if I go out to lunch with a colleague I'm 95% sure the inclination will be to discuss work issues not time recording issues and this, that and the other." (Solicitor)

Another related factor lies in the nature of the partnership structure and associated financial incentives for individual lawyers. The partnership offers a robust platform for co-ordinating professionals precisely because it creates significant individual financial incentives while providing an effective buffer for the productive core against the forces that have driven most for-profit firms to become more productive (e.g. need for external capital).

5.2. How Different is Professional Service Operations Management?

PSOM is typically presented as being more about the *how* and less the *what* of managing operations (Heineke, 1995, p.267). There is evidence in the LP story to support this approach. Consider how, despite apparently equivalent process characteristics, most of the

actual workflow structures, work practices, leverage ratios, etc. were completely different across the various service lines (section 4.2). Similarly, consider that for all the apparent unanimity about time recording and billing, descriptions of how it actually worked were incredibly diverse (section 4.6). The routines literature offers a structure for clarifying this divergence. Treating routines as an analogue for processes, it has been argued that they always have *in principle* and *in practice* features (Feldman and Pentland 2003, Pentland 2003). Research suggests that service workers introduce this divergence in settings where there are extremely detailed descriptions of the procedure to be followed (e.g. fast food restaurants: Victor *et al.* 2000) and therefore the individual agency associated with professional services could easily create the gradient whereby the abstract or ideal process is very different from its actual performance. In other words, managers need to recognise that they can articulate the design logic (the *in principle* process) and this may even appear to be widely accepted by the firms' professionals but the net result may be very little change in practice.

Set against this need for subtle influencing, the evidence regarding the relative balance of standard/non-standard processes in the LP case provokes reflection on the limited amount of 'judgment' work and seems to confirm "there is much that operations management can do to enhance effectiveness and efficiency in professional services" (Heineke, 1995, p.267). Specifically, greater levels of outsourcing/offshoring (Apte and Mason, 1995; Ellram *et al.*, 2008; Metters and Verma 2008) and the increased functionality of enterprise and knowledge management technologies (Stratman, 2008; Boone and Ganeshan, 2001) have, arguably, created the conditions for accelerated PSO transitions towards 'swift, even flow'⁶ (Schmenner, 2004). The integration of professional skills and technology in the LP volume offerings confirmed that 'professional' processes can be designed or re-designed to be more capital intensive, use more embedded knowledge, deploy fewer fully qualified staff, and therefore be easier to control, more productive, etc. (Silvestro *et al.* 1992).

The characteristics observed in LP suggest two additional dimensions for a distinctive model of PSOM.

Contingent Client Relationships

The professional-client exchange findings resonate with Harvey's (1990) argument that the relative power 'gradient' between professionals, managers and clients in a PSO provides

⁶ The similarity of the 'diagonal' in Figure 1 to Schmenner's (2004) matrix appears to support the validity of this model if disaggregated into a series of fractals – each repeating the overall pattern of the generic version.

important managerial insights and seem to confirm that the type of profession, and type of professional, matters in understanding PSOM (e.g. relative prestige, extent of unionisation, regulation, etc.). The LP findings for example suggest the basis for a more contingent understanding of client-professional interaction (in a legal services setting).

	PSO-led interaction >	< Client-led interaction
Client Scale & Capabilities?	Small, small spend, ad-hoc buying & no/limited legal expertise	Large, large spend, buying system (e.g. panel) & in-house legal expertise
Payment/incentive method?	Hourly billing systems	Setting fixed fee arrangements transfer (in theory) cost risks
How routine is practice?	No established precedents, entirely dependent on judgement	Limited room for interpretation of legal precedent and/or process
Value to client of service?	Qualifier for larger value exchange (e.g. M&A)	Limited implications and liabilities
Scarce offering (competition)?	Specialists, unique skills/experience	Lots of providers, pricing transparency, etc.
Who pays (client or 3rd party)?	If third party pay for service (e.g. legal aid) then potentially less emphasis on service recipient	If client pays then PSO needs to maintain relationship to ensure flow of revenue from billing

Table 5. Characterising Client-Professional Interaction

On the left of the table there may still be significant amounts of customization but it will be PSO (or professional) led and may not reflect explicit client requirements. In these cases any customization and corresponding process variability is likely to emerge from the individual professional judgements, preferences and experience:

"it's a rotten analogy but it's the difference between a bespoke suit from Saville row and a [mass market] suit like the one I'm wearing. You get what you pay for but the important thing is making the client see that it's what they need" (Partner, TTW)

The right side of the table details those situations where more traditional OM customization notions will come to the fore. In the LP case these ranged from the specific co-design procedures evident in the volume service lines (i.e. formal meetings between clients, partners and process/IT designers to develop shared specifications, etc.) to the more subtle structural signalling associated with marketing key professionals in what Maister (1993, pp.4-5) labelled 'Grey Hair' assignments.

Professional and Partnership Trade-offs

The unique employee and organizational characteristics of the PSO create a set of intriguing trade-offs (or paradoxes?) for PSOM decision-making. For instance, by employing

professional staff, a firm does not need to make substantial investments in managing service quality because this is enforced by a professional association (Goodale et al., 2008, p.670). Similarly, behavioral standards are encouraged by a broader professional ethos. Consider why, although no explicit dress code was in place, all the LP lawyers (and paralegals, etc.) always wore smart clothes (even at their 'off-site' partners meetings), were polite, etc. Balancing these advantages are the challenges of reduced influence over standards, the body of knowledge, training, etc. and aligning key individuals, with external and often competition minimizing allegiances, with organisational goals – the so-called 'cat herding' problem. The partnership structure has proved to be an effective mechanism for resolving some of these concerns (by creating incentives to stay with a single firm) and is highly effective in managing many 'steady state' PSOM challenges. For example it can help capacity and demand balancing by incentivizing flexible (long) working hours, especially by junior staff. At the same time, it effectively buffers the firm against needing to make many substantive structural OM decisions – especially whilst the partnership remains profitable (n.b. full equity partner income was £293,000 and £320,000 respectively in the two years of the study). There is scope for substantial further research into successful mechanisms for coping with or modifying these trade-offs but the LP case suggests two interesting options. First, in creating the volume offerings, an individual 'non-lawyerly' lawyer took advantage of the flexibility afforded by his new partner status to create an entirely new service line. This suggests PSOM benefits from (a) identifying/developing/hiring professionals with interests (identities) beyond their core technical discipline and (b) following a disruptive innovation logic and developing more productive offerings away from the core services (in the LP case the volume business was geographically and conceptually distant from the rest of the firm). Second, the attempt to create 6 integrated work teams (above the 17 service lines) was driven by a perceived lack of managerial 'talent' but, perhaps by accident, it also encouraged (at least discussions of) far greater levels of cross-team work sharing. Harvey's (1992) discussion of power relationships in PSOs suggested that the extent to which a professional has to co-ordinate work with others "involves a measure of power sharing" and thereby also increases her amenability to managerial control. In this respect, perhaps PSOM (with its need to co-ordinate and influence quasi-autonomous economic agents) could be reconceived as analogous to supply chain management (with the building of social capital, market making, information transparency, etc.).

6. Conclusions

This confirmatory and exploratory study set out to investigate the definitional characteristics of the PSO and the distinctive aspects of PSOM. The single case structure has obvious limitations but the rich description of operations-related issues at a single professional service firm provided a robust platform for generalizing to theory. Although not endorsing the suggestion that scholars should never “generalize the characteristics of services” (Edvardsson et al. 2005, p.115) what was observed suggests that OM scholars can fruitfully develop much more precise definitional model(s) of various professional service operations. Even within a single law firm for instance, the nature of client interaction was varied and contingent on a range of factors. Similarly, it is clear from the observed (managing and managed) behaviors that there is a greater degree of contingency in any model of PSOM than that suggested by the agreement in the literature that professionals cannot be effectively ‘managed’ in the same way as other employees. In other words, the case confirms that the PSO is a “distinct environment for managing operations” (Goodale et al. 2008, p.670) but the definitional PSOM challenge is not simply to nudge and influence culture but to try to enact mainstream OM options in a context where professional and organisational factors can act to undermine even the most robust efficiency logic. The findings from this research point to the importance of investigating PSO in specific professional contexts. Extending the range and number of different PSOs (different professions, organisational structures, countries, sizes, etc.) will clearly enhance the validity and, crucially, generalizability of any findings. More specifically, the LP case reveals that any OM transitions (such as a formal make versus buy decision leading to outsourcing) will inevitably feel like professionals ‘giving up’ certain activities. A meaningful PSOM research agenda could be built around investigating the detailed design, redesign and exit/transfer of processes.

References

- Abbott, A., 1988. *The system of professions: An essay on the division of expert labor*. Chicago: University of Chicago Press
- Apte, U.M., Mason, R.O., 1995. Global disaggregation of information-intensive services. *Management Science* 41 (7), 1250–1262
- Boone, T., Ganeshan, R., 2001. The effect of information technology on learning in professional service organizations. *Journal of Operations Management* 19, 485–495
- Chase, R. B. and Tansik, D. A., 1983. The customer contact model for organization design. *Management Science* 29 (9), 1037-1050

- Chase, R.B., Apte, U.M., 2007. A history of research in service operations: What's the big idea? *Journal of Operations Management* 25 (4), 375–386
- Drucker, P. 1999., *Knowledge-Worker Productivity: The Biggest Challenge*. California Management Review 41 (2) Winter, 9-94
- Edvardsson, B., Gustafsson, A., Roos, I., 2005. Service portraits in service research: a critical review. *International Journal of Service Industry Management* 16 (1), 107-21
- Eisenhardt, K.M., 1989. Building theories from case study research. *Academy of Management Review* 14, 532-550
- Ellram, L., Tate, W.L., Billington, C. 2008. Offshore outsourcing of professional services: A transaction cost economics perspective. *Journal of Operations Management* 26. 148–163
- Feldman, M., Pentland, B., 2003. Re-theorizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly* 48: 94-118
- Fitzsimmons, J. A., M. J. Fitzsimmons. 2006. *Service management: Operations, strategy, and information technology*, Fifth edition. Irwin/McGraw-Hill, New York, New York.
- Froehle, C. M., A. V. Roth. 2004. New measurement scales for evaluating perceptions of the technology-mediated customer service experience. *Journal of Operations Management* 22(1). 1–21.
- Goodale, J.C., Kuratko, D.F., Hornsby, J.S., 2008. Influence factors for operational control and compensation in professional service firms. *Journal of Operations Management* 26 (5): 669-688.
- Greenwood, G., 2007. Your ethics, redefining professionalism? The impact of management change. 186-217 in L. Empson (ed.), *Managing the modern law firm*. Oxford: Oxford University Press.
- Harvey, J. 1990. Operations Management in Professional Service Organisations: A Typology. *International Journal of Operations and Production Management*. 12 (4), 5-15
- Harvey, J. 1992. The Operations Management Challenge in the Delivery of Complex Professional Services. *International Journal of Operations and Production Management*. 10 (4), 100-107.
- Haywood-Farmer, J. Nollet, J. 1985. Productivity in Professional Services. *The Service Industries Journal*. 5 (2) 169-180.
- Heineke, J. 1995. Strategic operations management decisions and professional performance in U.S. HMOs. *Journal of Operations Management* 13 (4): 255-27

- Karwan, K.R, Markland, R.E., 2006. Integrating service design principles and information technology to improve delivery and productivity in public sector operations: The case of the South Carolina DMV. *Journal of Operations Management*, 24 (4), 347-362.
- Kellogg, D.L., Nie, W. 1995. A framework for strategic service management, *Journal of Operations Management* 13: 323-337
- Lovelock, C. H. 1992. *Managing services: Marketing, operations, and human resources*, Second edition. Prentice Hall, Englewood Cliffs, New Jersey.
- Lovelock, C. H. 1996. *Services marketing*, Third edition. Prentice Hall, Englewood Cliffs: New Jersey
- Løwendahl, B. 2000. *Strategic management of professional service firms*. Copenhagen Business School Press, Copenhagen.
- Machuca, J., Gonzalez-Zamora, M.d.M., Aguilar-Escobar, V.G., 2007. Service operations management research. *Journal of Operations Management* 25. 585–603
- Lovelock, C.H., 1983. Classifying services to gain strategic marketing insights. *Journal of Marketing* 47 (3), 9–20.
- Maister, D.H., 1982. Balancing the professional service firm. *Sloan Management Review* 24 (1), 15–29.
- Maister, D.H., 1993. *Managing the Professional Service Firm*. The Free Press, New York.
- Malhotra, N., Morris, T., Hinings, C.R., 2006. Variations in organizational form among professional service organizations. R. Greenwood, R. Suddaby, eds. *Research in the Sociology of Organizations: Professional Service Firms*, Vol. 26. Elsevier, Amsterdam, The Netherlands.
- McCutcheon, D., Meredith, J., 1993. Conducting case study research in operations management. *Journal of Operations Management* 11 (3), 239- 56
- Mersha, T., 1990. Enhancing the customer contact model. *Journal of Operations Management* 9 (3), 391-405
- Metters, R., V. Vargas. 2000. A typology of de-coupling strategies in mixed services. *Journal of Operations Management* 18(6). 664–683.
- Metters, R.V., Verma, R.2008. History of offshoring knowledge services, *Journal of Operations Management* 26. 141–147
- Patterson, P.G., 2000. A contingency approach to modeling satisfaction with management consulting services. *Journal of Service Research* 3 (2), 138–153.
- Pentland, B.T., 2003. Sequential variety in work processes. *Organization Science* 14, 528-540

- Pinnington, A., Morris, T., 2003. Archetype change in professional organizations: survey evidence from large law firms. *British Journal of Management* 14, 85-99
- Roth, A.V., Menor, L.J., 2003. Insights into service operations management: a research agenda. *Production and Operations Management* 12 (2), 145-164
- Sampson, S.E., Froehle, C.M. 2006. Foundations and Implications of a Proposed Unified Services Theory. *Production and Operations Management* 15(2), 329-343
- Schmenner, R., 1986. How can businesses survive and prosper? *Sloan Management Review* Spring, 21-32
- Schmenner, R.W., 2004. Service businesses and productivity. *Decision Sciences* 35 (3), 333-347
- Shostack, G. L. 1987. Service positioning through structural change. *Journal of Marketing* 51(1), 34-43
- Siggelkow, N. 2007. Persuasion with case studies. *Academy of Management Journal* 50 (1), 20-24.
- Silvestro, R., Fitzgerald, L., Johnston, R., Voss, C. 1992. Towards a classification of service processes, *International Journal of Service Industry Management* 3(3), 62-75
- Smith, A.D., Plowman, D.A., Duchon, D., Quinn, A.M. 2009. A qualitative study of high-reputation plant managers: Political skill and successful outcomes. *Journal of Operations Management* 27, 428-443
- Stratman, J.K. 2008. Facilitating offshoring with enterprise technologies: Reducing operational friction in the governance and production of services. *Journal of Operations Management*, 26 (2), 275-282.
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R., and Samson, D., 2002. Effective case study research in operations management: a process perspective. *Journal of Operations Management*, 20 (5), 419-443.
- Suskind, R. 2010. *The End of Lawyers: rethinking the nature of legal services*, Oxford University Press, Oxford.
- Verma, R., 2000. An empirical analysis of management challenges in service factories, service shops, mass services and professional services. *International Journal of Service Industry Management* 11 (1), pp.8-25
- von Nordenflycht, A. 2010. What is a professional service firm? Towards a theory and taxonomy of knowledge intensive firms. *Academy of Management Review*, 35: 155-174.
- Weinstein, M., 2006. TAMS Analyzer: Anthropology as Cultural Critique in a Digital Age. *Social Science Computer Review* 24 (1), 68-77

Wemmerlov, U., 1990. A taxonomy for service processes and its implications for system design. *International Journal of Service Industry Management* 1 (3), 13–27

Yin, R.K., 2008. *Case study research: Design and methods* (4th edition), California: Sage Publications