

WestminsterResearch

http://www.westminster.ac.uk/westminsterresearch

Servitization and Co-opetition in pharmaceutical industry

Ruiz-Alba, J., Soares, A. and Morales, J.

This is a copy of a paper published in the proceedings of the Spring Servitization Conference 2015, 18 to 19 May 2015, Aston Business School, Birmingham, UK. ISBN 9781854494924. It is available from the publisher at:

https://research.aston.ac.uk/portal/files/17919118/Proceedings_of_th...

The WestminsterResearch online digital archive at the University of Westminster aims to make the research output of the University available to a wider audience. Copyright and Moral Rights remain with the authors and/or copyright owners.

Whilst further distribution of specific materials from within this archive is forbidden, you may freely distribute the URL of WestminsterResearch: ((http://westminsterresearch.wmin.ac.uk/).

In case of abuse or copyright appearing without permission e-mail repository@westminster.ac.uk

SERVITIZATION AND CO-OPETITION IN THE PHARMACEUTICAL INDUSTRY

Jose Ruizalba Robledo, Anabela Soares & Javier Morales Mediano

ABSTRACT

Purpose: The present paper aims at providing an outlook of the portfolio of services developed by the pharmaceutical distribution in Spain and Portugal by looking at the different types and levels of implementation. This paper also provides the research framework that is currently the base for the ongoing data collection, exploring the rationale behind the implementation of different types of services and co-opetitive relationships in relation to the pursuit of profit, the creation of barriers with competitors and the reinforcement of customer loyalty. The impact of these factors on the intention to increase the delivery of services in the future will also be analysed.

Design/methodology/approach: In order to address the research framework presented, a quantitative research methodology is suggested through the use of web-based questionnaires. After the identification and categorization of services in this industry, a questionnaire was developed in order to measure the presence of the identified services and their impact on the pursuit of profit, the creation of competitive advantages the improvement of customer loyalty, willingness to further develop these services and co-opetitive relationships. The sample includes Portuguese and Spanish pharmaceutical cooperatives and private companies, operating as wholesalers.

Findings: The empirical data is currently being collected therefore the present paper provides solely the analysis of the pharmaceutical industry in both countries and the classification of the services offered in this industry which was used as the basis to develop the questionnaire. The paper discusses how the pharmaceutical distribution sector has evolved in the past decades and how the concentration process has changed the rules of the market owned by big players who are taking the lead. Additionally, the portfolio of new services that have recently been developed throughout the industry are identified. Some differences between both countries have been found mainly in IT services. The recent establishment of second degree cooperatives generates new perspectives to the suggested influence of co-opetitive relationships.

Originality/value: The present paper is part of an ongoing research project which aims at providing both theoretical and practical implications:

- 1) The analysis of pharmaceutical wholesalers from a servitization perspective;
- 2) Application of Baines et al. (2013) classification to the pharmaceutical sector;
- The adaptation and measurement of co-opetitive relationships within the servitization delivery;
- Development of instruments to measure the level of implementation and the type of services which can be used in the future to make compared studies in other countries;

Key words: Servitization; co-opetitive relationships; pharmaceutical distribution.

1. INTRODUCTION

In the majority of developed countries, the service sector has become key to competitiveness, strongly contributing towards economic growth. This inclination towards services is also reflected in the industrial sector that exhibits organic growth through the development of new services. Still, the provision of added/additional services remains a major challenge for manufacturing firms, particularly if they have strongly engrained traditional business models (Brax, 2005).

Services have been defined as activities or performance provided to satisfy customer needs (Grönroos, 1990). Nonetheless, in an increasingly competitive market, customers expect more and whatever was before an order-winner quickly becomes a qualifier affecting the whole industry (for example the case of quality - Lee, Zuckweiler and Trimi, 2006).

Companies have adapted to these demands for added value and increased their product-service offerings, combining products and services to such a degree that it is almost impossible to separate them and clearly distinguish them. Complete bundles and packages - referred to as product-service systems (PSS) - are developed and they are so intertwined that customers struggle to distinguish between what is the product and what is the added service (Aurich et al., 2009; Schmenner, 2009). This is particularly the case for the pharmaceutical industry which had to find new ways to compete in a highly regulated market with static margins. Hence the focus of this paper on the servitization levels of implementation offered by Portuguese and Spanish pharmaceutical distributors. Additionally, strategical reasons for this implementation are analysed as well as the intention to develop the different types of services identified.

In addition to this, emphasis has also been placed in "service-driven global supply chains" (Youngdahl and Loomba, 2000) and the role of customer relationship management and "service relationships" (Rust and Chung, 2006) as well as the role of intra and inter-firm relationships management (Mena, Humphries and Wilding, 2009; Soares, Soltani and Liao, 2012). Following the trends identified in the review of the servitization literature (Baines et al., 2009; Lightfoot et al. 2013) this study focuses on servitization as a means to create added value to traditional offerings by developing new capabilities. This paper focuses particularly on servitization as an instrument to simultaneously create long term relationships with customers and entry barriers to competitors. By providing a combination of enhanced features to their customers, companies try to go beyond the core services strictly expected from them and establish stronger bonds with their customers, increasing switching costs and making it harder for competitors to reclaim competitive advantage.

An empirical methodology is suggested to achieve this, building upon a conceptual research framework. As part of ongoing data collection, this paper offers a descriptive analysis of the sector as well as a classification of the available services. Subsequently, the present paper is structured into five main sections: 1) Section 1 provided an Introduction of the research; 2) Section 2 provides a brief summary of the literature on servitization and co-opetition, suggesting a research framework for further empirical research; 3) following this, in Section 3 methodological aspects are discussed; 4) in Section 4, main findings for the Portuguese and Spanish industry are presented, providing a categorization of levels of services delivered in the pharmaceutical sector; 5) and finally Section 5 offers concluding remarks.

2. LITERATURE REVIEW

2.1. Servitization

First suggested by Vandermerwe and Rada (1988), the term servitization is used to refer to the competitive advantage created through the "process of creating value by adding services to products" (Baines, et al., 2009:547). Vendrell-Herrero, Bustinza and Arias (2014) affirm that servitization has been described as the provision of service as a complement to manufacturing and also commercialization of products generating higher economic margins. According to Gaspar and Bustinza (2014:225), servitization is related to the added services to a product whilst product-service systems (PSS) refer to the use of these services focusing on specific joint offerings. This is corroborated by Baines et al. (2013:638) which state that "servitization is the process of transforming manufacturers to compete through product-service systems (PSSs) rather than products alone". In an attempt to categorize services, Martinez et al. (2010) distinguish product-service offerings from peripheral up to the development of close relationship between buyers and suppliers. In turn, going beyond production competences, Baines et al., (2013) suggest a categorisation of services that includes base, intermediate and advanced levels of services. The main difference between intermediate and advanced service levels is that in the first the supplier does not get fully involved in the customer business whilst in the second he does. In intermediate services, the supplier can offer more or less complex services, but only when those services are formally requested by the customer and with the supplier not knowing in detail what is the true nature of the customer business.

Whereas, in advanced services, the supplier perfectly understands the nature of the customer business and some of the customer's business processes are embedded in the services offering.

In their review of the servitization literature, Baines et al. (2009:558) refer that the majority of findings comes from case studies and summarize the main reasons that lead organisations towards the implementation of servitization. These include financial (e.g. revenue stream and profit margin), strategic (e.g. competitive opportunities and advantage) and marketing drivers (e.g. customer relationships and product differentiation). In doing so, they identify that the motivations behind this approach and resulting benefits clearly go beyond profitability. By adding services to their product offerings, companies are able to set themselves apart from their competitors, developing sustainable and hard to copy advantages (Oliva and Kallenberg, 2003; Gebauer et al., 2006; Kowalkoski and Kindström, 2013). As such, this generates repeated purchases and customer loyalty (Correa et al., 2007). Creating this privileged relationship with buyers facilitates the promotion of further services and products which in turn contributes towards the increase of entry barriers and switching costs (Mathieu, 2001b). Brax (2005) has identified six main challenges in the development of product-service combinations related to product design, production, delivery, marketing, communication and relationship with clients. Consequently, the present research considers the impact of relationship management as suggested next.

2.2. Co-opetitive relationships

In the same way that it is not possible to discuss manufacturing without referring to supply chain coordination, it is not possible to discuss servitization without considering the relationships established within and between companies to provide these added value product offerings. This is particularly the case in the pharmaceutical industry, the focus of this research, in which wholesalers are organised under the form of cooperatives and private companies jointly serving the same market. As a result, these companies are forced to simultaneously compete and collaborate in order to satisfy their customers' needs. This is what is commonly referred to in manufacturing and operational research as co-opetitive relationships. The term 'co-opetition', first defined by Ray Noorda, CEO of Novell (1993; cited by Nalebuff and Brandenburger, 2002:4), has been used in the literature to refer to situations in which two competing suppliers (of a given buyer, for example Toyota) cooperate towards the achievement of common buyer goals (Wu, Choi and Rungtusanatham, 2010). Nonetheless, research as shown that co-opetitive relationships can occur within and between firms (Schiavone and Simoni, 2011). Hence, these relationships can be loosely defined as situations in which companies simultaneously compete for orders and cooperate for selfpreservation towards the achievement of supply chain goals (Choi et al., 2002; Choi, 2007; Nalebuff and Brandenburger, 2002; Wu, Choi and Rungtusanatham, 2010).

2.3. Research Framework

Servitization and product-service systems (PSS) came to the forefront of research interests propelled by authors such as Brax (2005), Neely (2008), Baines et al. (2009, 2013a,b) reviews of the literature, studies and breakthroughs, calling for much needed further research in the field. In an attempt to contribute to this literature, this paper focuses on the implementation of servitization in the pharmaceutical industry. Building upon Baines et al. (2013) categorization of services (into Base, Intermediate and Advanced services) this research aims at comparing the levels and types of services implemented in the Portuguese and Spanish pharmaceutical distributors. In doing so, the suggested empirical research attempts to address the following research questions: RQ1. How is servitization applied in the pharmaceutical industry?; RQ2. How has the industry evolved in the last years in Spain and Portugal? To what extent has the economic crisis impacted on pharmaceutical distribution?; RQ3. What types of service categories are present in the pharmaceutical distribution of both countries and to what extent?; RQ4. How can the identified services be categorised against the three levels of service (Baines, 2013); RQ5. What is the impact of the different level of services in these three strategic factors: loyalty, creation of competitive advantages and profitability?; RQ6. What is the influence of loyalty, creation of competitive advantages and profitability in the willingness to increase the level of service implementation in the future?; RQ7. Is there any association between the establishment of co-opetitive relationships and the implementation of different types of services, strategic factors and willingness to increase the service in the future? Figure 1 depicts the research framework suggested to unravel these research questions.



Figure 1: Servitization and co-opetition research framework.

3. METHODOLOGY

As a means to answer the research questions and investigate the research framework proposed, an empirical web-based survey research is suggested. The survey addresses all the elements of the framework and was developed based on the categorization of services in the pharmaceutical industry provided in this document. Hence, for the purpose of this conference paper, a descriptive analysis of the sector is provided as well as a classification of the available services. For the currently undergoing data collection, several statistical analyses will be performed including contingency tables, comparison of means, association measures and multiple regression. Independent variables such as the type of company (cooperative or private), amongst other control variables will also be used to compare groups.

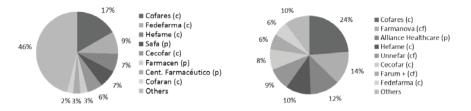
4. THE PHARMACEUTICAL DISTRIBUTION IN SPAIN AND PORTUGAL

The pharmaceutical distribution sector in Spain commenced its development between the 1930 and the 1960s, when 24 new distributors were founded. The majority of them were incorporated under the cooperative form integrated by pharmacy owners in specific regions. By the end of the last century, 32 out of the 41 players were still cooperatives while the rest were private companies. Although with some marginal corporate operations in the 80s and 90s, it has been during the new century that numerous corporate movements have occurred, including not only mergers and acquisitions but also different cooperative integrations and federations. All these corporate changes had a significant impact on the market split. In 1995 the top 8 companies had just over 50% of the market share what implies a fairly fragmented marketed, whereas in 2013 they increased to almost 90%. Figures 2 a) and

b) below illustrate these market share changes.

Conversely, the pharmaceutical distribution sector in Portugal did not start to flourish until the 1960s-1990s when more than 20 distribution companies were founded. From those 20 newcomers, 5 were cooperatives and the rest were private companies. As opposed to what occurred in Spain, the consolidation process commenced in 1985 and intensified in the early nineties with various takeovers by both private companies and cooperatives. Due to that early process of consolidation, the market was relatively concentrated by 2003 already when the top 7 wholesalers had close to 85% of the market share. That decrease in the market fragmentation has continued and in 2013 the seven biggest companies accounted for more than 90% of the market, as shown in figures 3 a) and b).

Ruizalba, Soares & Morales



a) Market shares in Spain in 1995 (Compilation based on data from IMS, 1996 cited by Frías Jamilena, 2001).

b) Market shares in Spain in 2013 (Compilation based on data from IMS cited by FEDIFAR, 2014).

Figure 2: Changing market shares in the Spanish market (p) Private company / (c) Cooperative / (cf) Cooperative federation

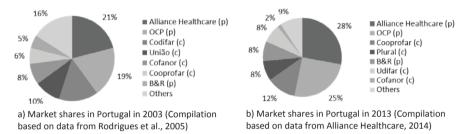


Figure 3: Changing market shares in the Spanish market (p) Private company / (c) Cooperative / (cf) Cooperative federation

Although there are some similarities in both countries that certainly invite to prepare a common analysis of the pharmaceutical distribution sector, there are three differences that deserve to be highlighted: (1) The latter development towards a modern configuration of the Portuguese industry vs. the Spanish one; (2) The balanced presence of both private companies and cooperatives in Portugal compared to Spain, where the importance of cooperatives is notably higher; (3) The even higher level of concentration experimented in the Portuguese market due to an earlier period of consolidation.

Nevertheless, it is also reasonable to believe that in both markets, Spain and Portugal, there are two key and common reasons behind the consolidation process described before. Firstly, the direct impact of new legislations introduced as a result of the reductions of public budget dedicated to medication.

This in turn affected sales prices and contribution margins defined for wholesalers. Secondly, the reduction of public health spending also resulted in additional strains for pharmacies in terms of delays in reimbursements from the government, which indirectly impacted to wholesalers as billing periods and stocks increased. Thus, consolidation of the industries was the natural response to the new circumstances. An evolution aimed to not only look for economies of scales and cost reductions but also to enhance the portfolio of services that can be offered to the pharmacies, which led to the servitization process of this sector that is here under analysis. Another important factor that has contributed to the servitization process is that, in both countries, the commercial margin of pharmaceutical distributors is regulated and fixed by the administration (Frías 2001). Since they cannot increase their margins they have to grow through other strategies and the most used has been the development of new services.

A preliminary analysis of the services portfolio of the most relevant Spanish and Portuguese wholesalers has resulted in five different groups of services depending on their content and/or area

of focus. Although the majority of services identified have been found in both markets – Spain and Portugal – the level of implementation is remarkably different. In Portugal only 7 out of the 26 identified services are offered on average compared to 14 services in Spanish companies. For example, whereas Portuguese companies have shown a limited introduction of services related to IT (which is offered apparently by only one out of the seven leading companies), Spanish companies seem to be one step ahead in this area, especially cooperatives which very often include some kind of IT services in their portfolio. Nevertheless, the extent of implementation of these services will be tested in the empirical part of this research.

4.1. Classification of service levels

Adopting Baines et al (2013) service levels categorisation, the three levels of services in the pharmaceutical distribution industry have been defined as follows: a) Base Services: refer to the distribution itself. In this case, the customer only values the supply of products that basically comprises the logistics of storage and delivery. There is not much value- added proposition and therefore few differentiation between companies is possible; b) Intermediate Services: added services that tend to add-up to the delivery of base services. These improvements are in a related field to the base service already provided such as the supply of complement products/services in the pharmaceutical industry. That means that all the tools and services provided to improve the supply chain in terms of time, accuracy or cost should be considered as Intermediate Services. That includes, for example, IT services (installation and running of specific software) aimed to manage stocks, orders and more frequent delivery services; c) Advanced Services: the outcome of these services goes beyond and is not limited to something related to the Base Service. The service offered creates enhanced value, that is, it engages "the customer in a relationship that has closer association with strategic repositioning and business process outsourcing than to sales of products and services" (Baines and Lightfoot, 2013:65). The portfolio of services identified in the pharmaceutical industry includes five Categories as detailed in Table 1.

Services group	Description	Service Level	Services included
1. Core services	Services related to the core	Base	Services related to the core activity of sale
	activity of sale and		and distribution: Other health products
	distribution (storage and		distribution; Other not health products
	delivery)		distribution; Special and urgent deliveries;
			Vaccines services; Dispose of medicines;
			Laboratories returns.
2. IT services	Sales, installation,	Intermediate	Services aimed to introduce the utilization
	maintenance and training of		of IT systems: ERP software; Software
	IT systems		maintenance; Hardware maintenance;
			training related to IT
3. Other	Accountancy, business	Advanced	Other professional services: Administrative
professional	advisory, HR, etc.		and accountancy; Management advice; HR
services			and recruiting; Marketing and
			communication; Loyalty programs.
4. Training and	Training about different	Intermediate	Training and dissemination services:
dissemination	contents and publications		Management training; Technical training;
	(magazines, technical notes,		Social networks and internet; Magazines;
	etc.)		Other publications.
5. Third parties	Agreements with third	Advanced	Services provided by third parties: Financial
services	parties to incorporate their		services; Renovation and decoration;
	services in the wholesaler		Occupational risk prevention; Data
	offering		protection; Private label manufacturing.

Table 1: Levels of services groups

5. CONCLUSIONS

The pharmaceutical sector has a crucial economic and social impact, playing an essential role in the provision of medical and health care, particularly due to the R&D investments required for the development of new medication (Frías, 2001). As such, and because the European regulations are

still lagging behind in terms of industry standardisation, it is imperative that we understand how the pharmaceutical industry currently operates and more importantly how servitization is approached in such a competitive market. The present paper outlined a framework that suggests co-opetition, strategic factors and willingness towards development as key variables for the pharmaceutical industry. Key categories of services provided in the pharmaceutical industries were also identified based on a sample of Portuguese and Spanish wholesalers. Further consideration and categorization of each of the five categories in each of the 3 levels of service needs to be developed. Future research should consider whether or not all the services included in a group of services are necessarily part of the same category or not.

REFERENCES

Alliance Healthcare, S.A. (2014), Relatório e contas consolidadas 2013, [online], Available:

http://www.alliance-healthcare.pt/en/c/document_library/get_file?uuid=cec3e092-6670-4be0-b4e2-4efa614476c4&groupId=111699, Accessed: 2/02/2015.

Aurich, J.C., Wolf, N., Siener, M. and Schweitzer, E. (2009), "Configuration of product-service systems", *Journal of Manufacturing Technology Management*, Vol. 20 No.5, pp. 591 - 605.

Baines, T. and Lightfoot, H. (2013), *Made to serve*, 1st ed., Chichester: Wiley.

Baines, T. and Lightfoot, H. (2013a), "Servitization of the manufacturing firm", *International Journal of Operations & Production Management*, Vol. 34 No.1, pp. 2 - 35.

- Baines, T. and Lightfoot, H., Smart, P. and Fletcher, S. (2013b),"Servitization of manufacture", *Journal* of Manufacturing Technology Management, Vol. 24 No.4, pp. 637-646.
- Baines, TS, Lightfoot, HW, Benedettini, O. and Kay, JM (2009), "The servitization of manufacturing: a review of literature and reflection on future challenges", *Journal of Manufacturing Technology Management*, Vol. 20 No. 5, pp. 547-567.
- Brax, S. (2005), "Manufacturer becoming service provider: Challenges and a Paradox", Managing Service Quality, Vol.15 No.2, p.142-155.
- Choi, T., Wu., Z., Ellram, L. and Koka, B. (2002), "Supplier-Supplier Relationships and Their Implications for Buyer-Supplier Relationships", *IEEE Transactions on Engineering Management*, Vol. 49 No. 2, pp.

119–130.

Choi, T. (2007), "Supplier-Supplier Relationships: Why They Matter", Supply Chain Management

Review, Vol. 11 No. 5, pp. 51-56.

- Correa, H.L., Ellram, L.M., Scavarda, A.J. and Cooper, M.C. (2007), "An operations management view of the service and goods mix", *International Journal of Operations and Production Management*, Vol. 27 No. 5, pp. 444-63.
- Fedifar (2014), Análisis sectorial de la distribución farmacéutica en España, [online], Available: http://www.actasanitaria.com/fileset/file_54804_INF_FEDIFAR_3313071637261161020.pdf, Accessed: 9/02/2015.
- Frambach, R., Wels-Lips, I. and Gundlach, A. (1997), "Proactive product service strategies an application in the European health market", Industrial Marketing Management, Vol. 26, pp. 341-52.
- Frías Jamilena, D. M. (2001), "Distribución farmacéutica Evolución y situación actual", Distribución y Consumo, Septiembre-Octubre 2001, p.66.
- Gaspar, S. and Bustinza, O. (2014), "Proceso de servitización en la industria editorial: El papel de los nuevos modelos de negocio", *Intangible Capital*, Vol. 10 No.2, pp.219-238.
- Gebauer, H. and Friedli, T. (2005), "Behavioural implications of the transition process from products to services", *Journal of Business and Industrial Marketing*, Vol. 20 No. 2, pp. 70-80.

Gebauer, H., Friedli, T. and Fleisch, E. (2006), "Success factors for achieving high service revenues in manufacturing companies", *Benchmarking: An International Journal*, Vol. 13 No. 3, pp. 374-86.

Grönroos, C. (1990), Service Management and Marketing, Lexington: Lexington Books.

Kowalkoski, C., Kindström, D. (2013), "Servitization in manufacturing firms: a business model perspective", In Proceedings of the Spring Servitization Conference, Birmingham, 20-21 May, p.2-7.

Lee, S., Zuckweiler, K., and Trimi, S. (2006), "Modernization of the Malcolm Baldrige National Quality Award', *International Journal of Production Research*, Vol.44 No.23, pp. 5089-5106.

Malleret, V. (2006), "Value creation through service offers", *European Management Journal*, Vol. 24 No. 1, pp. 106-16.

Martinez, V., Bastl, M., Kingston, J. and Evans, S. (2010), "Challenges in transforming manufacturing organisations into product-service providers", *Journal of Manufacturing Technology Management*,

Vol.21 No.4, pp.449-469.

Mathieu, V. (2001a), "Product services: from a service supporting the product to service supporting the client", *Journal of Business & Industrial Marketing*, Vol. 16 No. 1, pp. 39-58.

- Mathieu, V. (2001b), "Service strategies within the manufacturing sector: benefits, costs and partnership", *International Journal of Service Industry Management*, Vol. 12 No. 5, pp. 451-75.
- Mena, C., Humphries, A., and Wilding, R. (2009) "A comparison of inter- and intra-organizational relationships: Two case studies from UK food and drink industry", *International Journal of Physical*

Distribution and Logistics Management, Vol. 39 No.9, pp.762 – 784.

Miller, D., Hope, Q., Eisenstat, R., Foote, N. and Galbraith, J. (2002), "The problem of solutions: balancing clients and capabilities", *Business Horizons*, March/April, pp. 3-12.

Nalebuff, B. and Brandenburger, A. (2002), Co-opetition, London: Profile Books.

Oliva, R. and Kallenberg, R. (2003), "Managing the transition from products to services", International *Journal of service Industry Management*, Vol. 14 No. 2, pp. 1-10.

Rodrigues, V., Ribeiro, T., Silva, S. and Vasconcelos, H. (2005), "A situação concorrencial no sector das farmacias: Relatório Final" [online], Available:

http://www.concorrencia.pt/SiteCollectionDocuments/Estudos_e_Publicacoes/Outros/03_Farmacias _Final_2005.pdf, Accessed: 9, February, 2015.

Rust, R.T. & Chung, T.S. (2006), "Marketing Models of Service and Relationships", *Marketing Science*, Vol. 25 No. 6, pp. 560-580.

Schiavone, F. and Simoni, M. (2011), "An experience-based view of co-opetition in R&D networks", *European Journal of Innovation Management*, Vol. 14 No. 2, pp. 136–154.

Schmenner, R.W. (2009), "Manufacturing, service, and their integration: Some history and theory, *International Journal of Operations & Production Management*, Vol.29 No.5, pp.431-443.

Soares, A., Soltani, E. and Liao, Y. (2012), "The influence of inter-firm relationships on Supply Chain Quality Management: A Survey of UK firms", *International Journal of Global Management Studies Professional*, Vol. 4 No.2, pp. 17-32.

Unidad Editorial (2015), [online], Available: http://www.correofarmaceutico.com, Accessed: 28/02/2015.

Vandermerwe, S. and Rada, J. (1988), "Servitization of business: adding value by adding services", *European Management Journal*, Vol. 6 No. 4, p.314-324.

- Vendrell-Herrero, F., Bustinza O., Arias, D. (2014), "El papel de los recursos intangibles bajo la lógica dominante de la gestión de los servicios", *Intangible Capital*, Vol.10 No.2, pp.213-218.
- Wu, Z., Choi, T.Y. and Rungtusanatham, M.J. (2010), "Supplier-supplier relationships in buyersupplier-supplier triads: Implications for supplier performance", *Journal of Operations Management*, Vol. 28 No. 2, pp. 115–123.

Youngdahl, W. and Loomba, A. (2000) "Service-driven global supply chains", *International Journal of Service Industry Management*, Vol. 11 No.4, pp.329 – 347.

AUTHOR CONTACT DETAILS

Dr. Jose Ruizalba Robledo, The Claude Littner Business School, University of West London, Jose.Ruizalba@uwl.ac.uk

Dr. Anabela Soares, The Claude Littner Business School, University of West London, Anabela.Soares@uwl.ac.uk

Javier Morales Mediano, Javier.Morales@iese.net