

INTERNATIONALISATION THEORY PERSPECTIVE OF PRODUCT-SERVICE INNOVATION: THE GÖTHEBORG IV MODEL

ABSTRACT

In firm internationalization theory, enterprise growth is evolutionary and an emergent bolstered by its innovative processes. In recognition of an existing Cartesian perspective of product and service as two distinct entities in product-centric MNEs as expressed by product managers during interviews as well as in the literary canon, the focus of this paper is to introduce an integral perspective of the product-service innovation processes in the form of the Göteborg IV (G4) model. Based on the assumption that the core activity of any enterprise is exchange, where the value of production is realized in the process of exchange, the G4 model is an applied linguistics perspective of the Uppsala model (UM) of internationalization / globalization that requires different types of knowledge, mapped on to a four-quadrant diagram. Key in the G4 model of product-service innovation is the illustration of the emergent, cyclic dialogic of the feedback loop as having an important role in product-service innovation. Within the four schools of thought in service innovation literature, this firm internationalising perspective of product-service innovation is most closely aligned with the synthesis school of thought. It follows the use of more recent expressions such as ‘product-service systems’ in the literature, and focuses effort in moving away from the Cartesian duo-coordinate single planed models in acknowledgement of the need to conceptualise and visualise the complexity and uncertainty in which innovative processes, likewise internationalization / globalization occur.

Keywords: service innovation, Uppsala model, Göteborg IV model, product to service transition, product-service innovation, innovation processes, internationalization processes

I INTRODUCTION

A. Problem Statement: the Cartesian Continuum between Product and Service

I was sitting in one division office of a large European multinational enterprise (MNE), speaking with a product manager, §L, who had more than thirty years of experience and specialized knowledge in the product. The MNE can be described as traditionally product-centric (Kindström & Kowalkowski 2014, Raddats & Burton 2011, Gopalani 2010), having part of its operations in manufacturing. As a product manager and inventor, §L has followed the product (a hybrid of hardware and software) from launch through its different stages of evolution including those that required a complete overhaul of the software platform upon which the product runs:

“It is a mindset change from the component development, that is needed. With a mindset change, service will benefit. But things are changing. Now service is out there and it’s a business unit. Service is very important, and today we can somehow agree much more. Before, we were just servants, twenty years ago we were seen as serving, now we are a business generator. So we are somehow money. We create cash. So we try and say to the rest of the organisation, hey, this is what service can do! But we are still not completely in the mindset when we create our product. We don’t have to make some other business with the product. We have to make the business with the full system. You attract customers with the system, that is the thing! But we are not there yet.”—2015 interview with §L, Product Manager in a product-centric European MNE.

Therein §L's interview abstract is the outline of the problem statement in practice and in academia, of the current Cartesian conceptualization between product (goods) and service (add-on) in relation to the generating of enterprise growth and development (via product-service innovation) in a traditionally product-centric MNE. The research focus of this paper specifically addresses the dualistic Cartesian conceptualization between product and service as characterized in language in use in practice and academia.

Expressions in practice and in the literary canon tend to encourage a dualistic conceptualization that in its most dynamic form, results in a single-planed perspective of a continuum between product and service innovation processes towards a 'servitisation of a product'¹ (Brax 2005, Oliva & Kallenberg 2003). A two-dimensional conceptualization between product and service development towards product-service innovation, where product-service can be seen as the foundation of the survival of continued trade for an MNE, hardly captures what is essentially an evolutionary process of enterprise growth (Phelps & Fuller 2016, Vahlne & Johanson 2013, Nachum & Song 2011).

While lexical categorizations are useful in their own contexts, inherent in language use is how once defined, it also tends to confine, so that it becomes difficult to conceptualize outside of what has already been defined. Table I illustrates the influence of the collocation in academic research of words with 'product' and 'service' in current literature, indicating the top 3 disciplines in which these terms are most used.

¹There are several literature review articles published within the service innovation literature, outlining different schools of thought in service innovation research. Droege, Hildebrand and Forcada (2009) outline four schools of thought – technologist, assimilation, demarcation and synthesis – in which the basic assumptions in service innovation is revealed, where the authors have chosen to separate technologist and assimilation studies due to their different research focuses. Gallouj and Savona (2009) coming from mainly an economic theory perspective pursuing neo-Schumpeterian and post-Lancasterian proposes three frameworks – technologist / assimilation, service-oriented / differentiation and integrative / synthesizing. The technologist school of thought comes from the perspective of the dominant role technology plays in the innovation of services. The assimilation school of thought sees influence from literature on innovation in manufacturing technology being transposed to innovation in services. Limitations to both the technologist and assimilation perspectives include that there are non-technological aspects to service innovation to be considered. Demarcation or service-oriented perspective is derived from considering the characteristics of services and innovation in services. This perspective makes it difficult to generalize for services that result from manufacturing technological advancements. The synthesis / integrative approach tries to bring together the two former perspectives. The object of study here is the developing trend of convergence between manufactured goods and services. It is this view that is based on a new definition of a product, post-Lancasterian style (Gallouj & Savona 2009).

While the ideas in this paper follows literature from the field of international business studies and in particular firm internationalization theory, the idea of product-service innovation as emergent and as a process, if situated in the service innovation literature, shares closest parallel thoughts to the synthesis and integrative schools of thought. The Göteborg IV model (Cordeiro 2016) is based on integral worldview that potentially illustrates how all approaches towards product-service innovation in the service innovation literature can be situated in a knowledge-based four-quadrant model of firm internationalization theory, based on the Uppsala model of firm internationalisation where product-service innovation is a fundamental feature of firm operations in order for the firm to stay relevant and current.

The situating of the different approaches and frameworks in service innovation literature is not in this paper, explicitly situated / illustrated in the Göteborg IV model. Rather, this paper addresses product-service innovation from the perspective of international business studies, based on an emergent perspective of firm internationalisation.

Table 1. Terms used in peer reviewed academic content that illustrate dichotomy in product / service research and conceptualization. *Some journals were classified across disciplines.

Term/s	Total retrieved, relevance sorted	*Discipline (top 3)	English published
“product innovation”	33,132	Business (21,578) Economics (9,403) Engineering (6,199)	32,587
“service innovation”	7,829	Business (3,724) Economics (1,988) Engineering (1,155)	7,714
“product-centric”	609	Business (376) Engineering (184) Economics (107)	608
“service-centric”	374	Business (122) Engineering (121) Computer Science (110)	371
“after sales service” / “post sales service”	5,598 / 709	Business (3,397 / 486) Engineering (1,419 / 205) Economics (1,402 / 153)	5,539 / 706
“servitization” / “servitisation”	550 / 102	Business (341 / 69) Engineering (213 / 54) Economics (122 / 24)	528 / 101
“product-service system”	1,112	Engineering (682) Business (326) Economics (223)	1,080

The terms were retrieved from peer reviewed academic content found across 57 disciplines, published in 62 languages. The top three languages with the greatest global influence in the academia include English, Spanish and French, although with some search terms, next highest number of publications were found (after English) to be published in German, Portuguese and Korean.

The retrieved terms are not exhaustive, but as examples of language in use, they lend an idea of the influence of the type of conceptualizations of ‘product’ and ‘service’ across different disciplines. ‘After/post-sales’ research can also be found as a distinct topic of research interest. Table I shows that there has indeed been more research focused on product-innovation, where product and service are perspectivised predominantly as two separate entities.

The observation of increasing incorporation of services into product sales renders the fairly recent term of use ‘product-service system’ (PSS). PSS has been found mostly in the past decade’s literature, even if the idea had existed already in the late 1960s in the field of production management (Levitt 1972, Feigenbaum 1968).

The term ‘product-service’ illustrates the budding conceptual move towards a more integral perspective of a phenomenon that potentially paves future perspectives to be formed in studies of product-service innovation (compared with just product or service innovation) that bolsters the continued operations of an MNE.

But how can the dialogic of the processes of product-service innovation be captured conceptually beyond a Cartesian continuum in the context of firm internationalization?

To capture the context of uncertainty, complexity and web of business network within which MNEs operate, where the assumption is that MNEs need innovation and new knowledge to perpetuate, the

RESER 2016. 8-10 Sep. 2016. Naples, Italy.

Göteborg IV (G4) model (Cordeiro 2016), an applied linguistics in international business (IB) model, developed from the Uppsala model (UM) of internationalization / globalization (Johanson & Vahlne 1977, 2009) is introduced as a means towards an integrated perspective of product-service innovation.

B. Literature Review: Recognition of Need for an Integrated Model of Product-Service Innovation

Scholastic efforts in the 1970s and 1980s recognized that product and service were inherently intertwined concepts, even if it was undecided in which direction the influence went (product to service or service to product?) in terms of enterprise development (Bowen & Youngdahl 1998, Levitt 1972, 1976). By early to mid-2000s however, there was a distinct shift in practice and academic literature where product and service were conceptualized and researched as two different entities, much due to that organizations seemed to need different processes and structures in place in order to facilitate successful product- or service innovation. And in attempting to close / reconcile this conceptual distance, scholars have turned to various theories of the firm from the resource based view (RBV) of the firm (Fahy 1996, Penrose 1959), dynamic capabilities (Duijsters, McLaughlin, Fearon & Yang 2013, Kindström, Kowalkowski & Sandberg 2013), to transaction cost theory (Yigitbasioglu 2014) or a combination of the above frameworks (Kim, Song & Triche 2015, Peris Bonet, Peris-Ortiz, Gil-Pechuan 2010) in order to put forth a more comprehensive perspective of firm innovation processes. Professional and academic discourse revolved around 'transitioning' from products to services (Ferreira, Proença, Spencer & Cova 2013, Jacob & Ulaga 2008, Gebauer, Fleisch & Friedli 2005, Oliva & Kallenberg 2003), challenges in product to service providers (den Hertog, van der Aa & de Jong 2010, Martinez, Bastl, Kingston, & Evans 2010), servitisation (Visnjic Kastalli & Looy 2013, Baines, Lightfoot, Benedettini & Kay 2009) and deservitisation (Cusumano, Kahl & Suarez 2015, Gebauer & Kowalkowski 2012). Most research seem to continue to indicate an underlying Cartesian conceptualization and continuum of product and service.

There have however, been efforts by scholars to address this Cartesian perspective and the tendency towards dichotomizing product and service that might eventually become less helpful in understanding the evolutionary process of enterprise growth and development. As such, scholars have called for a more reconciliatory approach. Scholastic effort has been put into excavating and surveying current literature (Gallouj & Savona 2010, 2009) and tracing the history of research on product-service innovation (Carlborg, Kindström, Kowalkowski 2014) in effort towards a multidimensional (Gago & Rubalcaba 2007), multidisciplinary perspective of product and service (Barcet 2010). A re-perspectivising of product to service transition was encouraged (Kowalkowski, Windahl, Kindström & Gebauer 2015, Droege, Hildebrand & Forcada 2009). This is however, not to say that scholars should / would do away with the distinction between product and service completely that might lead to what Stauss (2005) termed as a Pyrrhic victory as a consequence of a too broad encompassing of the concept of service.

In working towards a more holistic approach in conceptualizing product-service innovation in a product-centric organization, and in recognition that all elements of the firm's business model needs to be addressed when looking at product-service innovation (Carlborg, Kindström, Kowalkowski 2014), a business model perspective of service-innovation was formulated (Kindström and Kowalkowski 2014, Kindström, Kowalkowski & Sandberg 2013).

II THEORY & METHOD

A. Theoretical Framework: Evolutionary, Business Network Perspective of Product-Service Innovation

RESER 2016. 8-10 Sep. 2016. Naples, Italy.

From the extant literature, it can be agreed that the continued success of a traditionally product-centric MNE in a context of interconnectivity enabled by digital technology and infrastructure depends upon its diverse grasping of knowledge. From understanding market complexities to indiscernible patterns of business network relationships, MNEs exist in a web of interdependencies, not in the least with their very own subsidiaries, in order to co-create, innovate and perpetuate its global presence.

In this paper, an evolutionary, emergent perspective and model of product-service innovation that bolsters enterprise development is suggested as a means towards reconciling the Cartesian product-service dichotomy. The enterprise is viewed here as a business entity engaged primarily in exchange – not production – activities. (Vahlne & Ivarsson 2014, Vahlne & Johansson 2013, Johanson & Vahlne 1977, Alchian & Allen 1964). Product-service innovation in an MNE can be viewed as an iteratively cyclic emergent production process, of which its value is derived from exchange within a business network.

Implicit in the literature of the product to service conceptual continuum is that the continued success of the enterprise depends upon its ability to transition from one end to the other in this age of interconnectivity, moving from a material product transaction to service relationship based activities. The need for a mind-set change in the MNE, from product- to service-centric was also the main concern for product manager §L in the interview abstract. But from an evolutionary, business network perspective, anything that occurs, occurs within the context of a relationship. Even material transactions transpire on the foundations of trust relations built between actors.

Unfolding over time, innovation that leads to an MNE's continued global outreach has much to do with its dialogic processes that occur within its business network. Product-service innovation can be seen as one such dialogic process bolstered by new knowledge creation that occurs through exchanges along the meeting peripheries in an enterprise's network of interconnected relationships.

B. Data Collection

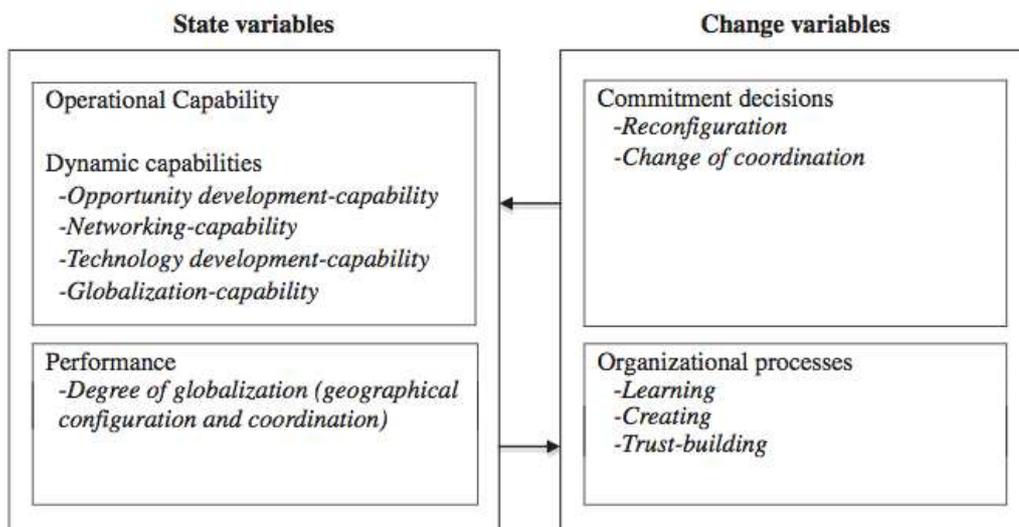
Data for this study comes from a collection of 56 long semi-structured interviews with product managers and top level managers of European founded MNEs that have a diversified portfolio of industries, of which 17 were the largest Swedish manufacturing MNEs (Vahlne & Ivarsson 2014, Cordeiro-Nilsson 2009). The UM (Fig. 1) was developed from empirical studies of Swedish MNEs for the purpose of explaining the internationalization process of the firm under conditions of uncertainty and bounded rationality. The two mechanisms of change include change by organizational learning from experience, and change through its commitment decisions. The internationalization process included the bi-directions of (i) increasing involvement of the firm in the individual foreign country, and (ii) successive establishment of operations in new countries (Johanson & Vahlne 1977:23). In a revised model of the UM, the MNE was also referred to as 'the firm as a whole', "in order to grow and improve on their effectiveness, multinational enterprises (MNEs) reconfigure their widely dispersed value chains and develop their coordination systems to make the different units specialize, integrate and operate towards the overall best for the firm as a whole." (Vahlne & Ivarsson 2014:227). The inherent bi-direction of internationalization in the UM thus indicated a need for a non-ambiguous use of the word 'firm'.

C. The Götheborg IV Model: an Applied Linguistics Perspective of the Uppsala Model of Internationalization / Globalization Processes

75% of the world's major languages contain the use of Subject, Verb, Object (Crystal 1990, 1977). Applying the perspective of the pronouns, *I, We, It/ Its*, (that indicates singular / plural, subjective / intersubjective, objective / interobjective), language is used in its meta-capacity in the study of an MNE's internationalizing / globalizing processes in two aspects. The first is to disambiguate the words 'enterprise' and 'firm' in the UM. The second is to uncover the knowledge zones in which these dialogic processes occur.

Applying a linguistics perspective to the UM processes, the G4 model makes explicit this bi-direction of internationalization / globalization by distinguishing between 'enterprise' and 'firm'. 'Enterprise' as referred to by the UM model, is denoted as H in the G4 model. Since an enterprise can contain an unknown number of units (denoted by n) within its network, the MNE or 'firm as a whole' is denoted as Hn . The 'firm', denoted by $H1$, is a singular example of a unit within the MNE, Hn . The business network in which both Hn and $H1$ exist is denoted as Hns .

FIGURE 1. The Uppsala Model by Vahlne & Ivarsson (2014:242)



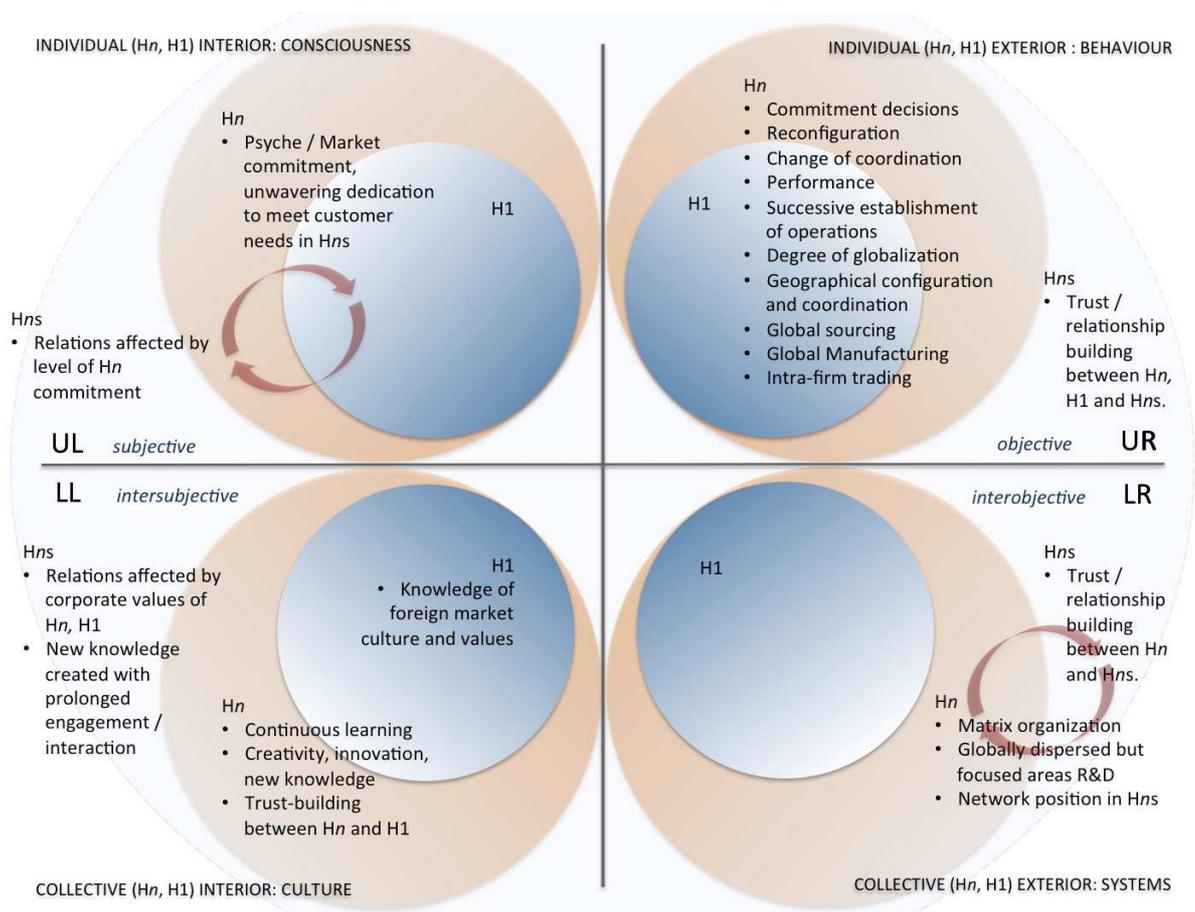
The G4 model (Fig. 2) maps 4 different knowledge zones when theoretically explaining the dialogic relations that occur between the different units of the enterprise (intra-firm trade, Hn and $H1$) and of the enterprise in relation to its larger social collective context (inter-regional coordination, Hn , $H1$ and Hns). In this sense, Hn and $H1$ can be described as holons (i.e. "whole/part") where each unit is a whole that is part of other wholes Hns that form an integral network of entities (Wilber 2006, Van de Ven 1986).

The context of uncertainty and change is likewise present for internationalization / globalization processes as that of product-service innovation processes, where the latter processes can be said to bolster the former and sustains the global outreach of an MNE. As such, a study of the product-service innovation processes would thus encompass a study of the interior and exterior perspectives of how these holons operate in a continuous dialogic, part-orchestrated, synchrony towards the sustained development of Hn in relation to its larger collective business network Hns .

The dialogic interaction that occurs in a constant state of flux between H1 to Hn, and Hn to its business network of Hns renders the UM differentiation between ‘state variables’ and ‘change variables’ weak. Different from the UM, the G4 model views all relations as evolving with time, so that the UM ‘state variables’ would also change through time. Time in the G4 model is thus not a zone of knowledge to be studied, but rather, time exists in the background fabric of the internationalization and globalization processes. Without time, there would be no internationalization / globalization processes.

Taking the firm and the enterprise as singular holons, labelled Hn for enterprise, and H1 for firm, the 8 perspectives rendered by the G4 model are derived mainly from the interior and exterior Hn and H1 perspectives of the internationalization / globalization processes, placed in four quadrants. Fig. 2 shows the knowledge zones and perspectives of the G4 model.

Fig. 2. The Göteborg IV model: an applied linguistics (*I, We, It / Its*) perspective of the Uppsala model of internationalization / globalization processes.



The Upper Left (UL, *subjective*) quadrant is the zone of Hn and H1 knowledge pertaining to the consciousness and ideology of the individual interiors of the enterprise and firm. This quadrant is where the ‘Commitment’ behind the ‘Commitment decisions’ thus enacted from the UM is represented in the G4 model. The Lower Left (LL, *intersubjective*) quadrant is the zone of knowledge of H1 and Hn pertaining to the collective interiors of enterprise and firm culture. These interior knowledge zones are then

RESER 2016. 8-10 Sep. 2016. Naples, Italy.

expressed in the exterior quadrants, the material actions of which can be observed exteriorly in behavior. The Upper Right (UR, *objective*) quadrant is the zone of H1 and Hn knowledge pertaining to individual exteriors of enterprise and firm behavior. The Lower Right (LR, *interobjective*) quadrant is the zone of H1 and Hn knowledge pertaining to collective exteriors of enterprise and firm structures and systems. The business network Hns is the largest holon or contextual fabric within which all enterprise Hn and firm H1 processes occur.

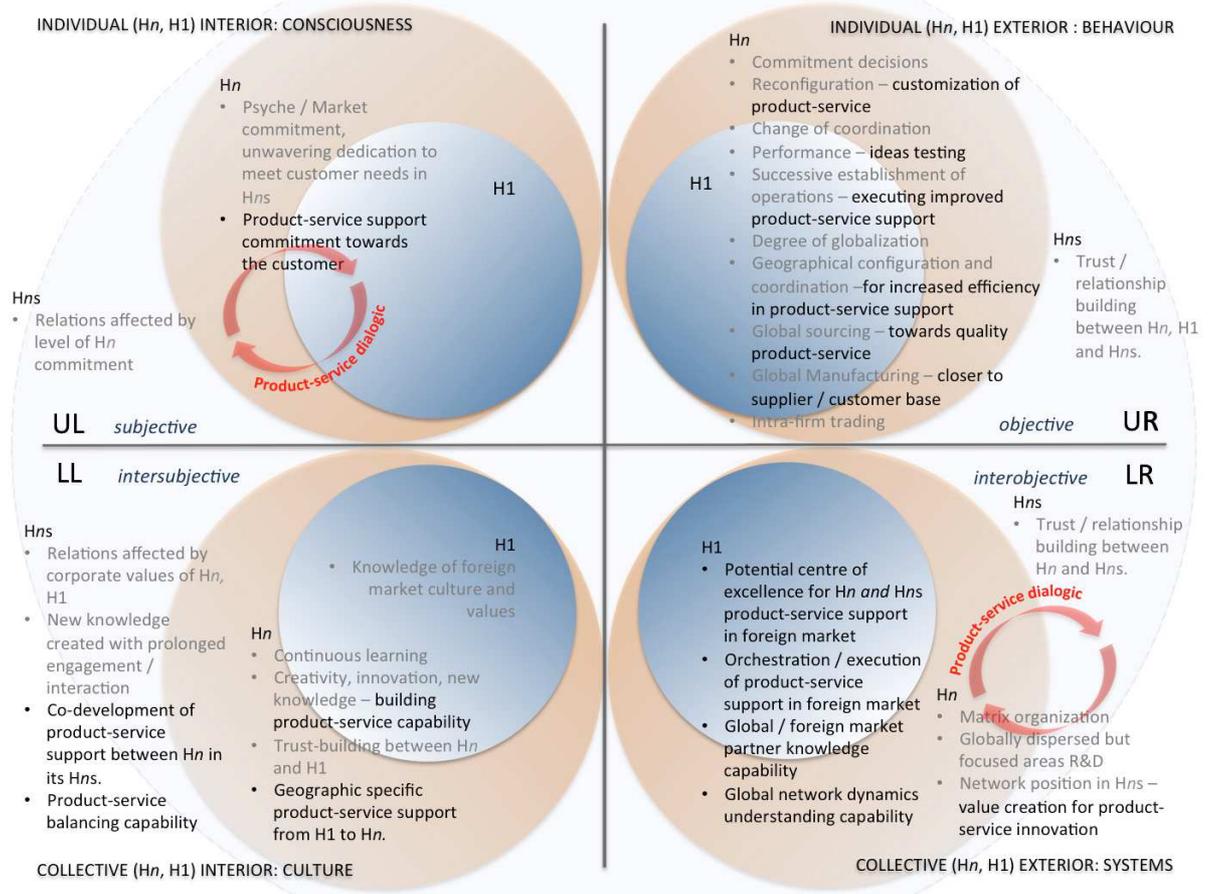
III THE DIALOGIC OF PRODUCT-SERVICE INNOVATION IN THE GÖTHEBORG IV MODEL

A. Discussion

Due to the generically emergent manner of any innovation process that takes place within the context of uncertainty, continuous learning and exchange at all three levels of Hn, H1 and Hns, elements of the internationalizing / globalizing processes found in the UM and G4 model share similarities to core elements found in the literary canon on innovation processes and outcomes (Kindström & Kowalkowski 2014, Howells 2006, 2004, Koput 1997, Van de Ven 1986, Lodahl & Mitchell 1980). The G4 model in Fig. 3 shows an integral visualization of the dialogic of product-service innovation from the combined core elements of innovation and internationalization / globalization processes.

FIGURE 3. The Götheborg IV model: visualizing product-service dialogic and innovation processes from the perspective of applied linguistics. Perspectives of product-service innovation is in darker print in all

quadrants, complementing elements from Fig. 2 of the internationalization / globalization processes.



The quadrants cover all perspectives (*I, We, It / Its*) of the MNE in its business network, with all quadrant activities being interrelated and contextually co-dependent. Compared to the Cartesian continuum between product and service, that the innovation processes of the MNE are evolutionary and emergent in the context of its business network Hns becomes evident in the G4 model, visualized by the product-service dialogic arrows in quadrants UL and LR. Even if only illustrated in the UL and LR quadrants, dialogic relations (similar to Koput’s 1997 ‘feedback loops’) occur in all quadrants and MNE activities as a matter of continuous intercourse at the different levels between Hn, H1 and Hns. In the process of innovation, activities of the MNE do not move in a sequential manner or along a continuum as such but rather, if the Cartesian continuum of product to service transition is to be used, then it should be viewed in a pattern of a dynamic spiral development towards its own maturity at differing levels of influence.

IV. CONCLUSION

In recognition of the perspective of a Cartesian continuum of ‘product’ and ‘service’ as two distinct entities in product-centric MNEs as expressed by product managers during interviews as well as in the literary canon, the focus of this paper is to introduce an integral perspective of the product-service innovation process in the form of the Göteborg IV (G4) model. Based on the assumption that the core

RESER 2016. 8-10 Sep. 2016. Naples, Italy.

activity of any enterprise is exchange, the value of production is realized in its exchange. It is the continuous activity of exchange that supports the development and growth of any enterprise. The processes of internationalization / globalization in enterprise development captured in the UM take place in the context of uncertainty, learning from experience and the creation of new knowledge bolstering innovation. In that sense, the processes of internationalization / globalization share core elements to innovation processes.

The G4 model is an applied linguistics perspective of the UM of internationalization / globalization. In the G4 model, the terms 'enterprise' and 'firm' were disambiguated, then pronouns were applied to unfold the various perspective of enterprise activities and processes. The four-quadrant, dialogic perspective illustrates how MNEs require different types of knowledge in order to support various enterprise processes and activities.

Key in the G4 model when applied to the conceptualization of product-service innovation processes is the illustration of the emergent, cyclic dialogic of the feedback loop as having an important role in product-service innovation. This perspective follows the use of more recent expressions such as 'product-service systems' (PSS) in the literature, and focuses effort in moving away from the Cartesian duo-coordinate single planed models in acknowledgement of the need to conceptualize and visualize the complexity and uncertainty in which innovative processes, likewise internationalization / globalization occur.

The G4 model is based on the business network perspective of rational internationalization / globalization dialogic processes. As such, its central elements can be used for prescriptive purposes when applied towards understanding the processes of product-service innovation.

ACKNOWLEDGMENT

This study is funded by the Swedish Central Bank Riksbanken Jubileumsfond (RJ), the Swedish Foundation for Humanities and Social Sciences Flexit 2015 Program in cooperation with ABB Corporate Research, Sweden. The author is a Flexit Program 2015-2017 post-doctoral scholar.

REFERENCES

Alchian, A. A., & Allen, W. R. (1969). *Exchange and production: Theory in use*. Belmont, Cal.

Baines, T.S., Lightfoot, H.W., Benedettini, O., & Kay, J.M. (2009). The servitization of manufacturing: A review of literature and reflection on future challenges. *Journal of Manufacturing Technology Management*, 20(5), 547–567.

RESER 2016. 8-10 Sep. 2016. Naples, Italy.

Barcet, A. (2010). Innovation in services: A new paradigm and innovation model. In F. Gallouj & F. Djellal (Eds.), *The handbook of innovation and services: A multidisciplinary perspective* (pp. 49–67). Cheltenham: Edward Elgar.

Bowen, D. E., & Youngdahl, W. E. (1998). "Lean" service: In defense of a production-line approach. *International Journal of Service Industry Management*, 9(3), 207-225. doi:10.1108/09564239810223510

Brax, S., (2005), "A manufacturer becoming a service provider – challenges and a paradox", *Managing Service Quality*, 15(2), 142-155.

Carlborg, P., Kindström, D., Kowalkowski, C., (2014). The evolution of service innovation research: A critical review and synthesis. *The Service Industries Journal*, 34(5), 373-398. doi:10.1080/02642069.2013.780044

Cordeiro-Nilsson, C. M. 2009. *Swedish Management in Singapore: a Discourse Analysis Study*. Doctoral Dissertation. Department of Philosophy, Linguistics and Theory of Science. University of Gothenburg Press. Gothenburg: Sweden.

Crystal, D. (1997). *The Cambridge Encyclopedia of Language (2nd ed.)*. Cambridge: Cambridge University Press.

Crystal, D. (1990). *Linguistics (2nd ed.)*. Harmondsworth: Penguin.

Cusumano, M. A., Kahl, S. J., & Suarez, F. F. (2015). Services, industry evolution, and the competitive strategies of product firms. *Strategic Management Journal*, 36(4), 559-575. doi:10.1002/smj.2235

den Hertog, P., van der Aa, W., & de Jong, M. W. (2010). Capabilities for managing service innovation: Towards a conceptual framework. *Journal of Service Management*, 21(4), 490-514. doi:10.1108/09564231011066123

Droege, H., Hildebrand, D. & Forcada, M. (2009). Innovation in services: present findings, and future pathways, *Journal of Service Management*, Vol. 20 No. 2, pp. 131-155.

Duijsters, G. M., McLaughlin, H., Fearon, C., & Yang, J. (2013). Service orientation and dynamic capabilities in Chinese companies: A macro-analytical approach. *International Journal of Quality and Reliability Management*, 30(4), 446-460.

Fahy, J. (1996). Competitive advantage in international services: A resource-based view. *International Studies of Management & Organization*, 26(2), 24-37.

Feigenbaum, D. S. (1968). The engineering and management of an effective system, *Management Science (Pre-1986)*, 14(12), B721.

Ferreira, F., Proença, J.F., Spencer, R., & Cova, B. (2013). The transition from products to solutions: External business model fit and dynamics. *Industrial Marketing Management*, 42(7), 1093–1101.

Gago, D., & Rubalcaba, L. (2007). Innovation and ICT in service firms: Towards a multidimensional approach for impact assessment. *Journal of Evolutionary Economics*, 17(1), 25–44.

RESER 2016. 8-10 Sep. 2016. Naples, Italy.

Gallouj, F., & Savona, M. (2009). Innovation in services: A review of the debate and a research agenda. *Journal of Evolutionary Economics*, 19(2), 149–172.

Gallouj, F., & Savona, M. (2010). Towards a theory of innovation in services: A state of the art. In F. Gallouj & F. Djellal (Eds.), *The handbook of innovation and services: A multidisciplinary perspective* (pp. 27–48). Cheltenham: Edward Elgar.

Gebauer, H., Fleisch, E., & Friedli, T. (2005). Overcoming the service paradox in manufacturing companies. *European Management Journal*, 23(1), 14–26.

Gebauer, H., & Kowalkowski, C. (2012). Customer-focused and service-focused orientation in organizational structures. *Journal of Business & Industrial Marketing*, 27(7), 527–537.

Gopalani, A. (2010). A new model for service businesses in product-centric firms. *Journal of Business Strategy*, 31(6), 4-11. doi:10.1108/02756661011089026

Howells, J. (2004). Innovation, consumption and services: encapsulation and the combinatorial role of services. *Service Industries Journal*, 24(1): 19-36.

Howells, J. (2006), “Where to from here for services innovation?”, paper presented at the *Knowledge Intensive Services Activities (KISA) Conference*, 22 March, Sydney.

Jacob, F., & Ulaga, W. (2008). The transition from product to service in business markets: An agenda for academic inquiry. *Industrial Marketing Management*, 37(3), 247–253.

Johanson, J., & Vahlne, J. (1977). The internationalization process of the firm--A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies* (Pre-1986), 8(1), 23.

Johanson, J. & Vahlne, J. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9), 1411-1431. doi:10.1057/jibs.2009.24

Kim, M., Song, J., & Triche, J. (2015). Toward an integrated framework for innovation in service: A resource-based view and dynamic capabilities approach. *Information Systems Frontiers*, 17(3), 533-546. doi:10.1007/s10796-014-9505-6

Kindström, D. & Kowalkowski, C., (2014). Service innovation in product-centric firms: A multidimensional business model perspective. *Journal of Business & Industrial Marketing*, 29(2), 96-111. doi:10.1108/JBIM-08-2013-0165

Kindström, D., Kowalkowski, C. & Sandberg, E. (2013). Enabling service innovation: A dynamic capabilities approach. *Journal of Business Research*, 66(8), 1063-1073. doi:10.1016/j.jbusres.2012.03.003

Koput, K.W. (1997), “A chaotic model of innovative search: some answers, many questions”, *Organization Science*, Vol. 8 No. 5, pp. 528-542.

Kowalkowski, C., Windahl, C., Kindström, D., Gebauer, H. (2015). What service transition? rethinking established assumptions about manufacturers' service-led growth strategies. *Industrial Marketing Management*, 45, 59-69. doi:10.1016/j.indmarman.2015.02.016

RESER 2016. 8-10 Sep. 2016. Naples, Italy.

Levitt, T. (1972). Production-line approach to service, *Harvard Business Review*, Vol. 50 No. 5, pp. 20-31.

Levitt, T. (1976). The industrialisation of service, *Harvard Business Review*, Vol. 54 No. 5, pp. 32-43.

Lodahl, T. & Mitchell, S (1980). "Drift in the Development of Innovative Organizations." *The Organizational Life Cycle*. Kimberly, J. and Miles, R. Eds. San Francisco, CA: Jossey-Bass Publishers, pp. 184-207.

Martinez, V., Bastl, M., Kingston, J., & Evans, S. (2010). Challenges in transforming manufacturing organisations into product-service providers. *Journal of Manufacturing Technology Management*, 21(4), 449–469.

Nachum, L., & Song, S. (2011). The MNE as a portfolio: Interdependencies in MNE growth trajectory. *Journal of International Business Studies*, 42(3), 381-405. doi:10.1057/jibs.2010.60

Oliva, R., & Kallenberg, R. (2003). Managing the transition from products to services. *International Journal of Service Industry Management*, 14(2), 160–172.

Penrose, E.T. (1959). *The Theory of Growth of the Firm*. London: Basil Blackwell.

Peris Bonet, F. J., Peris-Ortiz, M., & Gil-Pechuan, I. (2010). Integrating transaction cost economics and the resource-based view in services and innovation. *The Service Industries Journal*, 30(5), 701-712. doi:10.1080/02642060802382543

Phelps, N. A., & Fuller, C. (2016). Inertia and change in multinational enterprise subsidiary capabilities: An evolutionary economic geography framework. *Journal of Economic Geography*, 16(1), 109-130. doi:10.1093/jeg/lbv002

Raddats, C., & Burton, J. (2011). Strategy and structure configurations for services within product-centric businesses. *Journal of Service Management*, 22(4), 522-539. doi:10.1108/09564231111155105

Stauss, B. (2005). A pyrrhic victory: The implications of an unlimited broadening of the concept of services. *Managing Service Quality*, 15(3), 219-229. doi:10.1108/09604520510597782

Vahlne, J. & Ivarsson, I. (2014). The globalization of Swedish MNEs: Empirical evidence and theoretical explanations. *Journal of International Business Studies*, 45(3), 227-247. doi:10.1057/jibs.2013.60

Vahlne, J. & Johanson, J. (2013). The Uppsala Model on evolution of the multinational business enterprise: From internalization to coordination of networks. *International Marketing Review*, 30(3), 189-210. doi:10.1108/02651331311321963

Van de Ven, A. (1986), "Central problems in the management of innovation", *Management Science*, 32: 590-607.

Visnjic Kastalli, I., & Looy, v., B.E.J. (2013). Servitization: Disentangling the impact of service business model innovation on manufacturing firm performance. *Journal of Operations Management*, 41, 169-180.

Wilber, K. (2006). *Integral Spirituality: A startling new role for religion in the modern and postmodern world*. Boston, Mass: Integral Books.

RESER 2016. 8-10 Sep. 2016. Naples, Italy.

Yigitbasioglu, O. (2014). Modelling the intention to adopt cloud computing services: A transaction cost theory perspective. *Australasian Journal of Information Systems*, 18(3) doi:10.3127/ajis.v18i3.1052