

Managing value co-creation in pharmacy

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Abstract

Purpose – This paper aims to investigate the possible enablers and barriers of value co-creation processes in pharmacy, with the aim of enriching previous managerial and organisational contributions in the pharmacy management domain.

Design/methodology/approach – Building upon the interpretative contributions provided by the service logic and systems thinking approaches, this paper proposes a multi-disciplinary conceptual framework to analyse enablers and barriers in the value co-creation process. The findings are analysed using a semi-structured survey completed by employees involved in pharmacy management which were verified by structural equation modelling to allow us to determine the relevance of the findings in a changing social and economic environment, improve skills and capabilities and analyse competitors.

Findings – This paper offers an exploratory picture of the opinions of the employees involved in pharmacy management, focussing on possible enablers and barriers for value co-creation and their correlation with pharmacy revenues.

Research limitations/implications – The reflections and empirical research herein are the first of many studies investigating research pathways supplying both providers' and users' perceptions in the pharmacy domain about the value co-creation process.

Practical implications – The empirical evidence shows the relevance of some dimensions in defining opportunities and barriers for value co-creation process and – consequentially – pharmacy's economic performances.

Originality/value – This paper combines qualitative and quantitative approaches to enrich the theoretical and practical contributions to the field of value co-creation processes.

Keywords Value co-creation, Service logic, Pharmacy management, Systems logic, System thinking

Paper type Research paper



1. Introduction

The massive variety of socio-economic configurations emphasises the increasing uselessness of traditional managerial and governance approaches (Child and McGrath, 2001; Dervitsiotis, 2012; Van Dijk, 2012; Castells, 2011). The neoclassical view, based on the existence of a “linear logic” between needs and goods, is incapable of describing the emerging social and economic dynamics (Dolfsma, 2002; Sundbo, 2002; Piasecki and Wolnicki, 2004; Wilk and Cliggett, 2007). The traditional hierarchical framework, defined in light of a hypostasised top-down approach in which providers influence the requests and needs of consumers, is also unable to explain the emerging relational conditions (Miller, 1993; Wiklund and Shepherd, 2005).

All these elements, combined with companies facing growing trans-national competition, indicate that a paradigmatic change is approaching and threatens to manage the market (Dewulf *et al.*, 2009; Golinelli *et al.*, 2012). Among the proposals offered by managerial and marketing professionals with the aim of facing the emerging challenges of a “market in transition”, there are authors that have focussed on the role of organisational models (Baldwin and Von Hippel, 2011), the contributions of information and communication technologies (Van Cuilenburg and McQuail, 2003; Pastore and Vernuccio, 2004; Vona and Baccarani, 2014) and the emergence of new lifestyles and behaviours (Clarke, 2004).

A common interpretative theme can be identified among these contributions; this theme refers to a renewed role of the consumer. New boundaries and interpretative frameworks are emerging in which consumers are shifting from the passive recipients of *ex-ante* defined proposals to becoming key actors able to “activate” the value proposed by the providers (Prahalad and Ramaswamy, 2004; Heinonen *et al.*, 2010). According to this theory, consumers are progressively becoming users of a “business engagement that creates value” (Cova *et al.*, 2011, p. 237) and, in some cases, consumers are able to produce and use value at the same time (Toffler, 1981).

This paradigmatic change has several implications, both for the governance and management of economic and social configurations; this change means an overhaul of the way in which involved actors interact and define shared pathways and strategies (Vargo and Lusch, 2004; Lusch and Vargo, 2006). The implications and opportunities created by this change affect all domains, but they are particularly relevant in cases where the participation of consumers in “commercial processes” requires cognitive involvement (Frow *et al.*, 2015). The healthcare sector is a clear example or, to be more specific, pharmacy as the intermediary between health providers and users (Jambulingam *et al.*, 2005).

The changing role of consumers in the pharmacy domain opens several doors in terms of personalised interactions and better alignment with pharmacy’s strategies of meeting the market’s needs and expectations (Desselle *et al.*, 2016). These opportunities can produce effective value for both providers and users when they are correctly understood and managed (Chisholm-Burns *et al.*, 2012).

The main problem with these new opportunities is that they require new approaches (Greenwood and Hinings, 1996). Usually, this change is affected by a high level of resilience, as “the ability to prepare and plan for, absorb, recover from, or more successfully adapt to actual or potential adverse events” (National Academies, 2012: 14), particularly in sectors such as the pharmacy section, where the events are strictly influenced by the perspective of the employees (Sherrieb *et al.*, 2010). By following this guidance, the paper tries to investigate the enablers and barriers of value co-creation processes in pharmacy and how they affect pharmacy revenues.

In particular, the paper investigates the opportunities for the pharmacy to build value co-creation processes. In addition, the perceptions of a sample of employees involved in pharmacy management are analysed using a structured questionnaire survey. After this, the results of the survey were tested via structural equation modelling (SEM) to verify the relationships between the identified enablers and the barriers for the value co-creation process.

The paper is structured as follows: Section 2 discusses the multi-disciplinary framework on which the paper is based, as well as the formulation of the paper’s hypotheses in light of the service logic and systems thinking approaches. In Section 3, the research methods are briefly presented. In Section 4, the results are presented. In Section 5, the results are discussed from both a managerial and practical point of view. Finally, in Section 6, the conclusions and possibilities for future research are presented and discussed.

2. Conceptual and theoretical background

2.1 A service view of value co-creation process

According to Grönroos (2012), the “value co-creation is defined as joint activities by parties involved in direct interactions, aiming at contributing to the value that emerges for one or both parties” (p. 1525). The value co-creation process requires two or more actors to align their behaviours and strategies to build a shared pathway to achieve a common aim (Ordanini and Pasini, 2008; Payne *et al.*, 2008; Jaakkola and Hakanen, 2013; Cassia *et al.*, 2015). This alignment implies that each actor involved in the relationship understands the advantages and opportunities offered in the building of a shared pathway (Edvardsson *et al.*, 2011; Saarijärvi *et al.*, 2013). According to Lee *et al.* (2012), it is only possible to successfully build a value co-creation process when all the actors involved have the “same view of the world”. Additionally, Echeverri and Skålén (2011) demonstrated that the value co-creation process usually emerges as a consequence of the actors being unable to face the problems imposed by a new scenario. Still, Ramaswamy (2009) underlines that value co-creation is a strategic approach to minimise the risk of a highly variable environment, where new resources, competences and capabilities are combined by multiple actors.

Recognising the validity of these contributions, the value co-creation process can be considered an effective pathway when actors are aware of both the changes posed by social and economic configurations and of their incapability to face the emerging challenges. According to this, the paper states that:

- H1. There is a positive relationship between awareness of the changing social and economic environments of pharmacy’s employees and the pharmacy’s revenues.

According to the service logic, the value co-creation process can be considered a strategic pathway to align the value propositions with the changing social and economic configurations (Vargo, 2008). This alignment is made possible by the collaboration of the resources, competences and capabilities of multiple actors (Lusch *et al.*, 2010). Service logic underlines the dynamic nature of value co-creation processes, and it highlights the relevance to adopt instruments and models able to ensure an effective rapid adaptation of value propositions to the changes of market’s needs and expectations (Vargo and Akaka, 2012; Baccarani and Golinelli, 2014). According to Ballantyne *et al.* (2011), a value co-creation approach is only possible when the actors’ collaborations are able to constantly improve both their knowledge and capabilities. Additionally, Spohrer and Maglio (2008) state that only companies focussed on their innovation and constant improvement are able to successfully adopt value co-creation strategies. Zwass (2010) identified a positive correlation between a company’s investment in collaborations and innovation and their economic performance. According to this, this paper states that:

- H2. There is a positive relationship between the skills and capabilities of the employees in pharmacy and the pharmacy’s revenues.

2.2 Building a systems framework for value co-creation process

The increased variety of social and economic configurations emphasises the need to shift from a reductionist view based on the study of a single element, action and actor to a holistic view able to highlight and explain the relationships between several elements, strategies and actors involved in shared environments (Bertalanffy, 1968; Beer, 1979; Emery, 1981; Senge and Serman, 1992; Espejo, 1994; Forrester, 1994; Jackson, 2003; Golinelli, 2010; Barile, 2011). The increasing overlap of social and economic dynamics and the growing

interconnection between actors involved in different domains and fields underlines the need to develop a new interpretative framework able to link the attention on specific variables with a wider perspective about the environment that affects the evolution of these variables over time (Barile *et al.*, 2016).

Among different contributions provided by this approach, systems thinking offers interesting interpretative and methodological advancements to enrich the knowledge of managerial studies focussing on the actors that compose an organised entity and that analyse the ways in which the relationships among the actors evolve over time and affect the entity's configuration and behaviours (Stacey *et al.*, 2000; Saviano and Caputo, 2012).

According to Von Bertalanffy (1950, p. 26), a system is "a complex of interacting elements". In addition, the adoption of a systems view approach implies the enlargement of the traditional interpretative framework to include both the internal and external dynamics of an organised entity (Frey and Vaccà, 1995; Best and Holmes, 2010; Barile and Saviano, 2011; Calabrese *et al.*, 2018). Building on the systems view approach, the value co-creation process can be analysed in terms of an entity's ability to understand its position in a specific environment and to build a "suitable competitive space" (Barile *et al.*, 2013). With reference to this, Wieland *et al.* (2012) emphasise that the opportunity to build an effective value co-creation process is related to the company's ability to interpret "competitive dynamics" and to transform them into "collaborative pathways". Accordingly, Barile and Polese (2010) show that only companies able to build an effective collaboration between the actors involved are able to overcome the competitive barriers and gain a positive effect on their economic performance. Therefore, according to all these contributions, this paper states that:

- H3. There is a positive relationship between the relevance of competitors for pharmacy's employees and pharmacy's revenues.

By adopting the interpretative lens provided by the systems thinking approach, the value co-creation process can be analysed in terms of an actor's ability and willingness to align themselves with the needs and expectations of a prospective partner to improve their opportunities for collaboration (Barile and Saviano, 2013; Polese *et al.*, 2016). Additionally, the value co-creation process is the consequence of the ability of several actors to build a shared pathway to achieve a common aim (Barile *et al.*, 2014). By using the vocabulary formulated by the viable systems approach (Barile, 2006, 2009; Golinelli, 2008, 2011), we may be able to discover if the value co-creation process is only possible when there are conditions of consonance in terms of "compatibility between systemic actors, it refers to a static vision, and represent the potential harmonic relation" (Barile and Polese, 2009, p. 11). Moreover, the value co-creation process can be considered to be a tangible evidence of "the effective harmonic interaction, thus referring to the dynamic vision" (Barile and Polese, 2009, p. 12).

Following this interpretative pathway, companies can only build value co-creation processes if they are able to comprehensively understand the expectations of potential partners and to align their strategies and behaviours (Iandolo *et al.*, 2013; Saviano *et al.*, 2014; Del Giudice *et al.*, 2016). This alignment is only possible when strong attention is paid to communication and information processes (Pastore and Vernuccio, 2008; Di Nauta *et al.*, 2015; Caputo *et al.*, 2016a; Evangelista *et al.*, 2016). Specifically, as underlined by Caputo (2016) and Caputo *et al.* (2016b), only by sharing information and building bidirectional communication pathways can companies effectively understand their environment and its actors. Recognising the validity of this position, this paper states that:

- H4. There is a positive relationship between the attention on information sharing of pharmacy's employees and the pharmacy's revenues.

3. Methodology

3.1 Research approach and sample

The paper aims to investigate the perceptions of pharmacy’s employees on the possible enablers and barriers of the value co-creation processes identified by the service logic and systems thinking approaches. To conduct the analysis, a sample of 123 employees engaged in 1,618 pharmacies active in the Campania Region in Italy (Federfarma, 2015) were chosen; this sample was not random. The choice to focus on a small sample in this part of the research was to verify the validity of the proposed hypotheses and model. As suggested by Bickman and Rog (2008), the research was conducted using an easily controllable sample to verify the validity of the structure and contents of the questionnaire.

Through the questionnaire, the research aims to measure the following dependent variables: the participant’s awareness of the changing social and economic environment of the pharmacy’s employees, the relevance of the pharmacy’s employees to improve their skills and capabilities to face the emerging social and economic challenges, the relevance of competitors for pharmacy’s employees and the attention on the information sharing of the pharmacy’s employees. The variables were measured by using a five-point Likert scale, where 1 means “completely disagree or not relevant” and 5 means “completely agree or absolutely relevant”.

After this, the results of the questionnaire were analysed via SEM using International Business Machines Corporation (IBM) statistical package for social science (SPSS) Statistics 22 to verify the existence of positive correlations among the identified dependent variables and the pharmacies’ 2016 revenues measured using the informatics platform of the pharmacies involved in the research. The conceptual model is reported in Figure 1.

3.2 Data collection

The questionnaires were completed between September and December 2016. The questionnaires were completed in person to ensure the participants fully understood the questions and to collect any suggestions as to how the quality of future research studies could be improved (Miller and Salkind, 2002). At least one employee fully completed the questionnaire for each selected pharmacy, totalling 123 individual pharmacies. Each questionnaire composed of 119 questions to measure the four dependent variables, and each variable has been measured using 30 questions in which it is required for the employees to express their level of agreement with respect to the sentences derived from the contributions

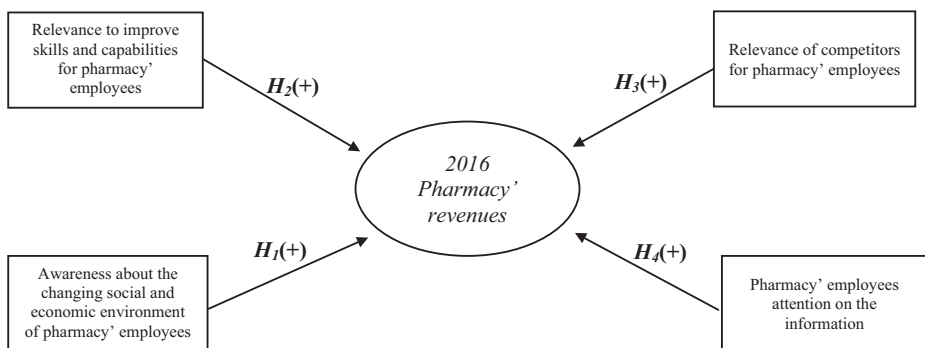


Figure 1.
Conceptual model

Source: Authors' elaboration

about service and systems thinking using a five-point Likert scale, where 1 means “completely disagree or not relevant” and 5 means “completely agree or absolutely relevant”. All the details about the variables and the number of questions used for measuring each variable are summarised in [Table I](#).

According to [Sperber et al. \(1994\)](#), the questionnaire was written and submitted in Italian. After all the questionnaires were completed, the results were translated into English and analysed to avoid any type of order bias ([Schmidt and Hunter, 2014](#)).

4. Findings

4.1 Internal consistency reliability and construct validity

The internal consistence of the model has been verified by measuring the Cronbach’s alpha (α) as “index of reliability associated with the variation accounted for by the true score of the underlying construct. Construct is the hypothetical variable that is being measured” ([Santos, 1999](#), p. 3). According to [Hair et al. \(2010\)](#), an α coefficient equal to or higher than 0.6 is suitable in exploratory research. As shown in [Table II](#), all α coefficients exceeded the cut-off value of 0.7.

Our second step was to validate the construct validity by measuring the average variance extracted (AVE). According to [Teo et al. \(2008, p. 132\)](#), the AVE “is a more conservative test of convergent validity”. As shown by [Hair et al. \(2010\)](#), in the case of exploratory research an AVE greater than 0.5 demonstrates the validity of the model. As shown in [Table III](#), all the AVE coefficients are higher than 0.5.

4.2 Hypothesis testing via structural equation modelling

Our third step was to test the hypotheses using SEM by using IBM SPSS Statistics 22. According to [Hoyle \(1995\)](#), hypotheses tested using SEM are not rejected if they have a probability value (p -value) equal to or less than 0.05. Considering that the proposed model has nine degrees of freedom and that, as reported in [Table IV](#), the p -values for all hypotheses are less than 0.05; the model is not rejected.

4.3 Fitness indexes

Finally, our last step involved using fitness indexes such as the normed fit index, the goodness of fit index and the comparative fit index to verify the general fitness of the model. As shown in [Table V](#), all the cut-off values are exceeded.

5. Discussions

The empirical research reported in the previous pages shows that there is a positive relationship between the awareness of the changing social and economic environment of pharmacy’s employees and the pharmacy’s revenues (HI). This result is aligned with previous contributions within the domain of change management ([Kettinger and Grover, 1995](#)). Accordingly, it is possible to affirm that the ability to build organisations able to correctly understand risks and opportunities imposed by the changing environment is a condition needed to define possible collaborative pathways ([Neus and Scherf, 2005](#); [Stampacchia, 2011](#)). As underlined by [Matthyssens and Vandenbempt \(2008\)](#), the pathway for building value co-creation processes is an internal one and requires companies to effectively read and explain external dynamics.

More specifically, empirical research shows that companies endowed of employees able to understand the influence of external environment on companies’ strategies have better economic performances. This result emphasises both the relevance of employees in building

Table I.
Dependent variables, brief description, questions and method for the measurement

Dependent variables	Brief description	Number of questions used for the measurement and their sources	Method used for the measurement
Awareness about the changing social and economic environment of pharmacy's human resources	It refers to the employees' ability to perceive the changes of socio-economic environment as relevant factors for the survival of every organised entity. This variable measure the employees' attention on external dynamics	30 (Ramswamy, 2009; Echeverri and Skälén, 2011; Edvardsson <i>et al.</i> , 2011; Grönroos, 2012; Lee <i>et al.</i> , 2012)	five-point Likert scale, where 1 means "completely disagree or not relevant" and 5 means "completely agree or absolutely relevant"
Relevance for pharmacy's human resources to improve their skills and capabilities to face the emerging social and economic challenges	It measures the willingness of employees to constantly invest in learning and training processes. This variables can be considered an indirect measure of the organisation's ability to be aligned with the market evolutions	29 (Lusch <i>et al.</i> , 2010; Zwass, 2010; Ballantyne <i>et al.</i> , 2011; Baccarani and Golinelli, 2014)	five-point Likert scale, where 1 means "completely disagree or not relevant" and 5 means "completely agree or absolutely relevant"
Relevance of competitors for pharmacy's human resources	It represents the organisation's perception about the competitive scenario. This variable can be considered an indirect measure of organisation's awareness about competitive trends and dynamics	30 (Barile and Polese, 2010); Best and Holmes, 2010; Wieland <i>et al.</i> , 2012; Barile <i>et al.</i> , 2013)	five-point Likert scale, where 1 means "completely disagree or not relevant" and 5 means "completely agree or absolutely relevant"
Attention on the information of the pharmacy's human resources	It refers to the relevance given to the information sharing in the pharmacy management. This variable measure the degree of attention paid by the employees in the acquisition, coding and use of information in pharmacy	30 (Barile <i>et al.</i> , 2014; Saviano <i>et al.</i> , 2014; Caputo, 2016; Caputo <i>et al.</i> , 2016b; Del Giudice <i>et al.</i> , 2016)	five-point Likert scale, where 1 means "completely disagree or not relevant" and 5 means "completely agree or absolutely relevant"

Source: Authors' elaboration

proactive strategies (Baird and Meshoulam, 1988) and their role in building innovative pathways, such as value co-creation processes (Gummesson and Mele, 2010). With specific reference to the pharmacy domain, the way in which employees approach market dynamics represents a relevant driver on which they act to ensure a suitable adaptation of traditional (useless) managerial approaches to emerging new rules and scenarios (Calomo, 2006). Accordingly, this result underlines the relevant value of employees involved in the pharmacy domain as a filter for correctly understanding external social and economic dynamics. Thanks to correct use of employees' awareness, pharmacies have the

Hypotheses	Cronbach's alpha
<i>H1(+)</i> : Awareness about the changing social and economic environment of pharmacy's employees → pharmacy's revenues	0.793
<i>H2(+)</i> : Relevance for pharmacy's employees to improve their skills and capabilities to face the emerging social and economic challenges → pharmacy's revenues	0.821
<i>H3(+)</i> : Relevance of competitors for pharmacy's employees → pharmacy's revenues	0.703
<i>H4(+)</i> : Attention on the information of the pharmacy's employees → pharmacy's revenues	0.736

Source: Authors' elaboration

Table II.
Study for internal consistency reliability

Hypotheses	1	2	3	4
<i>H1(+)</i> : Awareness about the changing social and economic environment of pharmacy's employees → pharmacy's revenues	1			
<i>H2(+)</i> : Relevance for pharmacy's employees to improve their skills and capabilities to face the emerging social and economic challenges → pharmacy's revenues	0.562**	1		
<i>H3(+)</i> : Relevance of competitors for pharmacy's employees → pharmacy's revenues	0.503**	0.663	1	
<i>H4(+)</i> : Attention on the information of the pharmacy's employees → pharmacy's revenues	0.618	0.672	0.69**	1

Note: **Correlation is significant at the 0.01 level (two-tailed)
Source: Authors' elaboration

Table III.
Study for construct validity

Hypotheses	<i>p</i> -value
<i>H1(+)</i> : Awareness about the changing social and economic environment of pharmacy's employees → pharmacy's revenues	0.007
<i>H2(+)</i> : Relevance for pharmacy's employees to improve their skills and capabilities to face the emerging social and economic challenges → pharmacy's revenues	0.013
<i>H3(+)</i> : Relevance of competitors for pharmacy's employees → pharmacy's revenues	0.009
<i>H4(+)</i> : Attention on the information of the pharmacy's employees → pharmacy's revenues	0.021

Source: Authors' elaboration

Table IV.
Test via structural equation modelling

opportunities for improving efficient managerial models based on the combination between top-down view (managerial perspective) and bottom-up perception (employees view).

In the same vein, the research shows that there is a positive relationship between a pharmacy's employees ability to improve their skills and capabilities when facing emerging social and economic challenges and the pharmacy's revenues (*H2*). This finding can be considered to be aligned with previous studies investigating the role of employees and learning processes when building efficient and effective strategies (Ulrich *et al.*, 1995; Barile *et al.*, 2015a, 2015b; Saviano *et al.*, 2016). As underlined by Garvin (1993), employees constantly updating their knowledge and skills offer companies an additional competitive advantage. Moreover, Powell *et al.* (1996) demonstrated that there is a positive relationship between a company investing in the learning of its employees and their ability to build collaborative strategies with external partners. Still, Sternberg (1997) showed that strong companies' attention on the strategies inspired by the "lifelong learning" increases the opportunities for companies to identify and attract better partners whereby develop collaborative strategies.

Focussing on the pharmacies themselves, recent legislation and market evolution in Italy has emphasised the need for companies to overcome their traditional approach to education, in the context of employees (Baldini *et al.*, 2010). Pharmacies cannot be sample considered as stores where pharmacists' knowledge and capabilities are used for addressing users' choices among several *ex-ante* defined alternatives (Heidari and Vagnoni, 2011). New findings are emerging, referencing pharmacies as a "service centre", able to provide effective solutions for a wide range of users; new capabilities and skills are needed to face this radical change (Brusoni and Mallarini, 2009). According to this result, the paper provides a relevant building point on which act for defining future promising research streams direct to investigate the multiple skills and abilities required for correctly managing the multi-dimensional domain of pharmacy. Moreover, this result opens to a more wide view of pharmacy not only as "selling point" of health system but also as complex organisations which require multiple competences for being organised and managed in a suitable way.

Going one step further, the research demonstrates that there is a positive relationship between the relevance of competitors for pharmacy's employees and the pharmacy's revenues (*H3*). This result enriches previous contributions about the role of competition in companies' strategies and behaviours (Sciarelli *et al.*, 1982; Schuler and Jackson, 1987; Ireland and Hitt 1999). According to Hoskisson *et al.* (2002), the perceived competition affects both directly and indirectly a company's strategies, thereby influencing their approach to the market. Additionally, perceived competition can act as an enabler of value co-creation processes because companies that perceive a high level of competition are more likely to build profitable long-term collaborations. This is supported by the empirical results provided by Maskell and Malmberg (1999) that show the existence of a strong correlation

Fitness indexes	Cut-off value	Measured value
Normed fit index (NFI)	>0.95 (Schumacker and Lomax, 2004)	1.27
Goodness of fit index (GFI)	>90 (Byrne, 1994)	0.96
Comparative fit index (CFI)	>93 (Byrne, 1994)	1.09

Table V.

Fitness indexes

Source: Authors' elaboration

between the level of perceived competition and the number of effective collaborations in several economic fields.

With reference to this result, the pharmacy management offers relevant stimuli of reflections (Bruzzi, 2009). The changes in Italian law and the emergence of new competitors for Italian pharmacies require to identify new collaborative pathways and new trans-sectorial alliances (Gianfrate, 2008). Additionally, only by having a clear view of possible competitors can the pharmacy identify and attract effective partners for new profitable shared strategies (Romagnoli, 2008). According to this, the contribution of employees in identifying the most relevant competitors, their strategies, and market approaches represent a significant lever for pharmacy interested in improving their competitiveness and ability to survive over time.

Finally, the research outlines that there is a positive relationship between the attention on the information sharing for pharmacy's employees and the pharmacy's revenues (H4). This result confirms all previous contributions offered by various studies on knowledge management and, specifically, on information sharing (Ruggles, 1998; Gupta *et al.*, 2000; Osterloh and Frey, 2000, Ackerman *et al.*, 2003). As underlined by Gaonkar and Viswanadham (2001), companies can effectively identify partners to develop profitable collaborations by sharing information with prospective partners directly, ensure a reciprocal understanding and a dynamic alignment of needs and expectations. Additionally, the attention on the information sharing can represent a relevant enabler or barrier for value co-creation. A company's ability to effectively manage information sharing and the coding and use of information acquired from the market are relevant pre-conditions for the development of an effective value co-creation process (Baccarani, 2002). With specific reference to pharmacy management, the research underlines the need to more effectively use large amount of data formally and informally provided by the users (patients). Building upon this data, new approaches and pathways should be developed with the aim of developing stronger relationships and new collaborative pathways with users (Ugolini, 2009).

6. Conclusions and future directions for the research

In the last few years, an increasing number of events, such as the collapse of local boundaries, the spread of information and communication technologies and the emergence of new lifestyles and behaviours, have profoundly affected social and economic balances and rules.

Traditional managerial and organisational approaches are progressively demonstrating their decreasing ability to understand and explain the emerging dynamics (Stacey, 2007). Old competitive approaches are no longer able to ensure the survival of companies and organisations (Porter and Van der Linde, 1995). A radical change in perspective from competitive to collaborative logic is required to identify new competitive spaces (Verganti, 2013).

In response to the emerging global dynamics, service dominant logic has formulated the intriguing concept of value co-creation as a strategic approach based on the contamination of resources, knowledge, competences and capabilities of multiple actors to obtain a higher value from collaboration (Ballantyne and Varey, 2008). Despite this conceptual framework and the contributions analysing it, several questions are still answered with reference to the conditions that can support or obstruct the definition, implementation and success of value co-creation processes (Möller *et al.*, 2008).

To bridge this gap, this paper has identified some enablers and barriers for value co-creation processes by combining service logic and systems thinking. The correlation between the identified variables and the companies' revenues, with reference to our sample

of Italian pharmacies, have been verified through SEM. In a nutshell, the adopted research pathways offer one answer to the research question, identifying a number of variables – an awareness of the changing social and economic environment of pharmacy's employees department, the relevance of pharmacy's employees department improving their skills and capabilities to face the emerging social and economic challenges, the relevance of competitors in the context of a pharmacy's human resources department and the attention on the information sharing of pharmacy's employees – affecting a company's ability to build effective value co-creation processes.

This paper's conceptual reflections and empirical evidences offer several theoretical and practical implications. From a theoretical point of view, it identifies the need for increasing the number of studies to identify enablers and barriers for value co-creation processes with the aim to provide more useful guidelines and instruments to researchers and practitioners interested in the management of pharmacy. At the same time, the paper underlines the need for extending the studies about the role of employees driving the success or the failure of a value co-creation process in pharmacy as way to overcome the limitations imposed by studies strictly focussing on the design of value co-creation processes without considering the elements and variables able to affect *ex-ante* the results of these processes.

Instead, from a practical point of view, this paper clarifies the need for enriching managerial and organisational abilities, with specific reference to the domains of market analysis, relational management and knowledge management to support pharmacy managers and employees in the definition of new business models based on market's needs and expectations. In such a line, there emerges a need for new managerial instruments and approaches able to conceptualise the contributions of employees about the selection and use of relevant elements for the success of value co-creation strategies.

All these implications are the results of the first study in a long-term analysis project. Accordingly, reflections and empirical findings herein cannot be considered representative of the whole market because they require verification on a more extensive sample, as well as trans- and multi-sectorial comparisons. The next stage of our research will focus on the identification of other enablers and barriers for value co-creation processes and on their impact on the dimensions affecting companies' economic performances in multiple sectors.

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