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Co-creation impacts on student behavior

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Abstract

Co-creation is a new trend in business context aimed at fusing all the stakeholders, specially customers in different phase of creation and production of products and services (Ramaswamy & Gouillart, 2010; Bowonder et al.; Muñiz & Schau, 2011; Prahalad & Ramaswamy, 2004). Within this paper, the effects of co-creation approach at the university context are analyzed through a literature review. The objective is to examine the existing relationship among different variables which are present at co-creation process in higher education institutions. The studied variables are communicative participation, co-creation and satisfaction. The results show a positive impact of students' collaborations (as customers) on value co-creation; in addition of a high impact of co-creation on students' satisfaction. Finally, as a future research, it is suggested to carry out, using quantitative techniques, to bolster co-creation implications on scholar behavior.

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Keywords: Co-creation; communicative participation; satisfaction; higher education.

1. Introduction

Nowadays, the level of information demanded by consumers is increasingly high while requiring higher value added services (Prahalad & Ramaswamy, 2004). Value co-creation, due to customers' involvement since the initial phases of ideation of services and/or products creation, has been modifying the traditional concept of business

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(Gustafsson et al., 2012). Co-creation can offer strategic advantage providing unique services designed by the customers (Bolton & Saxena-Iyer, 2009; Witell et al., 2011). In order to implement this perspective, companies shape their channels to create solid links with stakeholders, being active customer participation and collaboration one of the primary functions (Ramaswamy & Gouillart, 2010).

The main aim of this piece of research is to analyse co-creation approach within higher education (HE) institutions, while studying existing models in order to understand the relationship among the most commonly studied variables, such as communicative participation, co-creation and satisfaction. Since these relationships are present during the co-creation of value, it is important to know the real effect that this concept have on customers' behaviour, in order to foster the student's satisfaction. Some of the co-creation's benefits are the promotion of communication among the stakeholders involved, the productivity growth (Rexfelt et al., 2011), or the organizations' cost reduction (Auh et al., 2007).

In the particular case of higher education institutions, one of the challenges to be faced is to make the necessary transition from traditional methods professor-centered, to a new perspective focused on students which implies higher levels of collaboration. At this point, co-creation is analyzed as a new innovative approach, which helps modify the current procedures and also provides students of better opportunities on the labour market powers (Velasco, 2014).

2. Methodology

The methodology applied was systematic literature review, in order to validate and confirm the relationship existing between communicative participation and co-creation, and co-creation and satisfaction. The review included published papers since 2004 to the present. The review process followed 7 decision-steps:

- Initial search in ISI Web of Knowledge, EBSCO and ABI/INFORM ProQuest databases to find the most suitable journals related to the issue.
- Selection of the keywords: Co-creation or cocreation, co-production or coproduction.
- Determination of the data range: 2004-2015
- Selection of papers published only in peer-reviewed journals.
- Until this phase, there were found 373 papers from ISI ISI, 47 from EBSCO, 5 from ProQuest.
- Search for a combination of secondary keywords: communicative participation, satisfaction, higher education institutions.
- Abstracts reading.
- Removing redundancies, remaining only the relevant papers to the study.

The final result of the process included 47 papers from ISI, 3 from EBSCO and 4 from ProQuest. Finally, a hand-searching was conducted and 22 extra relevant papers were included.

The reference manager software used was the Mendeley. The principal journals included were: *Journal of Marketing*, *Advances in Consumer Research*, *Research in Higher Education*, *Business Horizons*, *Computers and Education*, *Harvard Business Review*, *Strategy & Leadership*, *IEEE Transactions on Professional Communication*, *International Journal of Educational Management*, *Journal of Business Research*, *Journal of Service Research*, *Journal of the Academy of Marketing Science*, *Research in Higher Education*.

3. Findings of the study

Co-creation approach with direct collaboration and customer engagement, both in the service and production sectors, allows final product/service to be obtained according with consumer requirements. Throughout the literature review, factors and concepts involved in the co-creation process has been found. The most commonly used factors in literature are customer participation and involvement, precise communication and transparent feedback. There other issues, also quite frequent: quality of product-service provided, and the influence of the aforementioned factors on customers' satisfaction and loyalty.

Prahalad and Ramaswamy (2004) created the DART model (dialog, access, risk and transparency), considering what they labeled as the most important elements of co-creation process. In their study, Berthon et al. (2009) also

reflect about how branding co-creation facilitates the understanding of the criteria and the necessity to involve all stakeholders.

The main novelty that brings co-creation is that the customer becomes an active agent with an important role since the initial phases of ideation (Witell et al., 2011). Researchers such as Vargo and Lusch (2004) refer to co-creation with a perspective of service-centered dominant logic, affirming that the value is created by customers. Management of the stakeholders' communications and mutual knowledge is important, due to the need for understanding what customers are really seeking (Berthon et al., 2009). Bolton and Saxena-Iyer (2009) analyzed clients' participation in interactive services, identifying two measurements: the extent to which the customer participates and the extent to which technology is utilized in the creation and delivery of the service.

One of the challenges to be faced by adopting co-creation approach is to be able to change roles of the involved actors due to the necessity of new types of design environments. Rexfelt et al. (2011) propose different actions to be considered at the three phases of the innovation process (exploration, creation and evaluation phase). For example, at the exploration phase, they recommend to learn about customer problems, and they suggest a structured method based on the validity, understanding, severity, frequency, generality, and evolution of the problems.

Analyzing co-creation implementation, variables such as communicative participation and satisfaction, are identified. These variables interact during co-creation process. In the following subsections the relationship among them are analyzed.

At the university context it is important to strengthen the interactions among the students, teacher, staff and the community with the objective to enhance the learning experiences and to accomplish the student expectations (Pinar et al., 2011). The co-creation approach is possible to apply at this scenario, where stakeholders like students and professors are involved in different academic activities, and the students have a protagonist role during the teaching-learning process. With this co-creative perspective, the students gain more responsibility been the teacher a facilitator of learning. Some positive results of this interaction are the enhancement of program adaptation, the learning flexibility and the facilitation of learner control (Bowden and Alessandro, 2011). Another's positive outcomes of this collaboration are the positive impact in curriculum design process, where the students have an active participation (Bovill, 2014); as well they can improve their knowledge and skills allowing the co-creation of knowledge (Yeo, 2009).

The positive effect of co-creation at postgraduate programs has been already demonstrated in studies such as Peralt and Ribes-Giner (2013), Ribes-Giner et al. (2014), or Ribes-Giner and Peralt (2015). They also have identified different tools used in this context.

3.1. Relationship between communicative participation and co-creation

Communicative participation includes supportive collaboration between consumers and firms with a high degree of dialogue. Thanks to this collaboration it is possible to maintain good argumentation and to cull ideas from each part, reducing the likelihood that ambiguities may emerge (Rodina & Chekushkina, 2015). On the other hand, communicative participation enables co-creation growth, reinforcing collaboration between firms and customers (Shaw et al., 2011). Thus, participation, as an important property of co-creation, stimulate the formation of value with the cooperation of all stakeholders (Lee et al., 2014). During the service delivery, the client participation is essential, thus, it is not possible to separate the production phase from the consumption phase when we are talking about services (Ordanini & Pasini, 2008), as it is the case of Higher Education institutions.

Positive impact of collaborative participation on co-creation has been remarked by many authors as for instance Gruner & Homburg (2000), Grisseemann & Stokburger-Sauer (2012), Timmis (2012), Rajah et al., (2008), Prahalad & Ramaswamy (2013), Mulder & Stappers (2009), Prahalad & Ramaswamy (2004), Muñiz & Schau (2011), Witell et al. (2011), Etgar (2008), Sanders & Stappers (2008), Greer & Lei (2012), Devasirvatham (2012), Bendapudi & Leone (2003), Lundkvist & Yakhlef (2004), Auh et al. (2007), Ramaswamy & Gouillart (2010), Gustafsson et al. (2012) or Dong et al.(2008).

Analyzing specifically at HE context, the educational services involve students, professors and the staff; having students (as customers) an active role in the different interactions. It is important to highlight that the new educative trends are focused on teachers as coordinators and collaborators in the teaching & learning activities, having the

students a greater responsibility in their learning process. This student-centered approach, giving students a protagonist participation, allows to achieve satisfactory results in “both pedagogical and business outcomes” (Bowden & D'Alessandro, 2011, p. 36). Another advantage of this relationship is the learner control, the improvement of program adaptation, and the learning flexibility (Bowden & D'Alessandro, 2011). Also, it has been remarked that when the student collaborates in curriculum design, the satisfaction levels increase positively (Bovill, 2014), and the students' knowledge and skills are also improved (Yeo, 2009).

3.2. The relationship between co-creation and satisfaction

Satisfaction is well known as the positive reaction ‘to the state of fulfillment, and customers’ judgment of the fulfilled state’ (Kim et al., 2004, p. 148). Satisfaction benefits are countless, because it has a favorable impact on customer loyalty, diminish customer churn and limit price sensibility. An important issue about satisfaction is linked to the efforts to improve loyalty and customer retention and, therefore, contribute to increase the firms’ revenues (Stauss & Neuhaus, 1997).

Among the different benefits of co-creation, the ability to garner a higher level of satisfaction is seen as one of the most important ones (Pralhad and Ramaswamy, 2013). A marketer objective is to identify “new ways of understanding customers' value creation” in order to increase the client satisfaction, and make the co-creation an effective alternative (Grönroos, 2008, p. 298). On the other hand, in their studies, Grisseman and Stokburger-Sauer (2012) confirm a model where co-creation has a direct effect that co-creation on satisfaction; been explained this relationship by the client’s performance during the participation process. Füller et al. (2011) studied the co-design in virtual co-creation platforms, remarking the importance of the autonomy toward user satisfaction in order to increase their involvement. Dong et al. (2008) analyzed the impact of the recovery process in self-service technology circumstances where, thanks to the co-creation collaboration, firms assure positive values of customer satisfaction.

There are several studies that emphasize the high impact that co-creation have on satisfaction such as Terblanche (2014), Ho et al. (2014), Auh et al. (2007), Dong et al. (2008), Rajah et al.(2008), Bowonder et al. (2010), Ramaswamy & Gouillart (2010) and Ordanini & Pasini (2008).

At the university context, the student satisfaction refers to “a short term attitude which arises from the students' evaluation of the educational experience, which is subjective in nature” (Bowden & D'Alessandro, 2011, p. 38). The co-creation approach allows HE institutions to know what the client/student need, and therefore enables the institution to deliver a valuable learning experience increasing the student satisfaction (Bowden & D'Alessandro, 2011). Higher levels of satisfaction at HE lead to revenue increase, loyalty, cost reduction and continued education. The student engagement in co-creating the curriculum, for instance, increases satisfaction of professors, and students (Bovill, 2014). Exceeding student's expectations fosters their satisfaction and loyalty (Pinar et al., 2011). Makkar et al. (2008) suggest a modification to Porter's value chain, in order to adjust it better to the university reality. Through this adaptation, both students and the institution, are able to co-create value, satisfying the stakeholders. Finally, it has been demonstrated, at this context, that there is a positive psychological impact during the co-creation process on the satisfaction in undergraduate students (Ribes-Giner & Peralt, 2014).

4. Conclusions

After conducting this literature review, it has been found collaborative participation as a main co-creation driver, as well satisfaction as one of the most important implications. The findings remark solid and positive links existing among this variables, demonstrating that co-creation is a feasible alternative to be implement as an innovative strategic in higher education context. When looking for an increase of competitiveness levels, companies and particularly, HE institutions may consider value co-creation approach as a way to assure customer/student involvement at different phases in service creation/production/delivery; with the objective to reduce cost, and to increase satisfaction, trust and loyalty.

Through the systematic literature review it was confirmed the scarcity of literature dealing with the co-creation approach at higher education context, as innovative management solution. In future research, we suggest to analyze in deep, using for instance quantitative techniques, the relationship among the abovementioned variables, even including others variables such as loyalty and trust. Also, the context of the higher education institutions remains in

analysis as a study case, in order to deepen in student approach as a key stakeholder in the different academic process. At this point, it can be affirmed that although it seems that co-creation could have positive results on student/customer behaviour, this approach, particularly in HE institutions, has not been studied in depth.

References

- Auh, S., Bell, S. J., McLeod, C. S., & Shih, E. (2007). Co-production and customer loyalty in financial services. *Journal of retailing*, 83(3), 359-370.
- Bendapudi, N., & Leone, R. P. (2003). Psychological implications of customer participation in co-production. *Journal of marketing*, 67(1), 14-28.
- Berthon, P., Pitt, L. F., & Campbell, C. (2009). Does brand meaning exist in similarity or singularity? *Journal of Business Research*, 62(3), 356-361.
- Bovill, C. (2014). An investigation of co-created curricula within higher education in the UK, Ireland and the USA. *Innovations in Education and Teaching International*, 51(1), 15-25.
- Bolton, R., & Saxena-Iyer, S. (2009). Interactive services: a framework, synthesis and research directions. *Journal of Interactive Marketing*, 23(1), 91-104.
- Bowden, J. L. H., & D'Alessandro, S. (2011). Co-creating value in higher education: The role of interactive classroom response technologies. *Asian social science*, 7(11), 35.
- Bowonder, B., Dambal, A., Kumar, S., & Shirodkar, A. (2010). Innovation strategies for creating competitive advantage. *Research-technology management*, 53(3), 19-32.
- Devasirvatham, E. R. (2012). Modelling co-creation and its consequences: one step closer to customer-centric marketing (Doctoral dissertation, Auckland University of Technology).
- Dong, B., Evans, K. R., & Zou, S. (2008). The effects of customer participation in co-created service recovery. *Journal of the Academy of Marketing Science*, 36(1), 123-137.
- Etgar, M. (2008). A descriptive model of the consumer co-production process. *Journal of the academy of marketing science*, 36(1), 97-108.
- Füller, J., Hutter, K., & Faullant, R. (2011). Why co-creation experience matters? Creative experience and its impact on the quantity and quality of creative contributions. *R&D Management*, 41(3), 259-273.
- Greer, C. R., & Lei, D. (2012). Collaborative innovation with customers: a review of the literature and suggestions for future research. *International Journal of Management Reviews*, 14(1), 63-84.
- Grissemann, U. S., & Stokburger-Sauer, N. E. (2012). Customer co-creation of travel services: The role of company support and customer satisfaction with the co-creation performance. *Tourism Management*, 33(6), 1483-1492.
- Grönroos, C. (2008). Service logic revisited: who creates value? And who co-creates?. *European Business Review*, 20(4), 298-314.
- Gruner, K. E., & Homburg, C. (2000). Does customer interaction enhance new product success?. *Journal of Business Research*, 49(1), 1-14.
- Gustafsson, A., Kristensson, P., & Witell, L. (2012). Customer co-creation in service innovation: a matter of communication?. *Journal of Service Management*, 23(3), 311-327.
- Ho, Y. C., Hsieh, M., & Yu, A. P. (2014). Effects of Customer-value Perception and Anticipation on Relationship Quality and Customer Loyalty in Medical Tourism Services Industry. *Information Technology Journal*, 13(4), 652-660.
- Kim, M. K., Park, M. C., & Jeong, D. H. (2004). The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services. *Telecommunications Policy*, 28(2), 145-159.
- Lee, S. M., Olson, D. L., & Trimi, S. (2012). Co-innovation: convergenomics, collaboration, and co-creation for organizational values. *Management Decision*, 50(5), 817-831.
- Lundkvist, A., & Yakhlef, A. (2004). Customer involvement in new service development: a conversational approach. *Managing Service Quality: An International Journal*, 14(2/3), 249-257.
- Makkar, D., Gabriel, E. O., & Tripathi, D. (2008). Value chain for higher education sector-case studies of India and Tanzania. *Journal of Services Research*, Special Issue (February, 2008).
- Muñiz, A. M., & Schau, H. J. (2011). How to inspire value-laden collaborative consumer-generated content. *Business Horizons*, 54(3), 209-217.
- Mulder, I., & Stappers, P. J. (2009, June). Co-creating in practice: results and challenges. In *Collaborative Innovation: Emerging Technologies, Environments and Communities (Proceedings of the 15th International Conference on Concurrent Enterprising: ICE 2009, Leiden, The Netherlands, 22-24 June 2009)*. Centre for Concurrent Enterprise: Nottingham, UK.
- Ordanini, A., & Pasini, P. (2008). Service co-production and value co-creation: The case for a service-oriented architecture (SOA). *European Management Journal*, 26(5), 289-297.
- Peralta, A., & Ribes-Giner, G. (2013). A proactive market orientation for the postgraduate programs. *Dirección y Organización*, (50), 37-47.
- Pinar, M., Trapp, P., Girard, T., & Boyt, T. E. (2011). Utilizing the brand ecosystem framework in designing branding strategies for higher education. *International Journal of Educational Management*, 25(7), 724-739.
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creating unique value with customers. *Strategy & Leadership*, 32(3), 4-9.
- Prahalad, C. K., & Ramaswamy, V. (2013). The future of competition: Co-creating unique value with customers. *Harvard Business Press*.
- Rajah, E., Marshall, R., & Nam, I. (2008). Relationship glue: customers and marketers co-creating a purchase experience. *Advances in Consumer Research*, 35, 367-373.
- Ramaswamy, V., & Gouillart, F. (2010). Building the co-creative enterprise. *Harvard Business Review*, 88(10), 100-109.

- Rexfelt, O., Almfelt, L., Zackrisson, D., Hallman, T., Malmqvist, J., & Karlsson, M. (2011). A proposal for a structured approach for cross-company teamwork: a case study of involving the customer in service innovation. *Research in Engineering Design*, 22(3), 153-171.
- Ribes-Giner, G., Peralt, A. (2014) Modelling the co-creation between students and universities and its effects to loyalty and satisfaction. In *Modelling for engineering and human behavior 2014*, Valencia, Spain, 3-5 September, 121–127.
- Ribes-Giner, G., Peralt, A. (2015). Structural equation modeling of co-creation and its influence on the student's satisfaction and loyalty towards university. *Journal of Computational and Applied Mathematics*.
- Rodina, E. N., & Chekushkina, E. N. (2015). Socio-philosophical Substantiation of Making Good Use of Intellectual and Creative Resources in a Teachers' Training Institution of Higher Education. *Asian Social Science*, 11(6), p111.
- Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-design*, 4(1), 5-18.
- Shaw, G., Bailey, A., & Williams, A. (2011). Aspects of service-dominant logic and its implications for tourism management: Examples from the hotel industry. *Tourism Management*, 32(2), 207-214.
- Stauss, B., & Neuhaus, P. (1997). The qualitative satisfaction model. *International Journal of Service Industry Management*, 8(3), 236-249.
- Terblanche, N. S. (2014). Some theoretical perspectives of co-creation and co-production of value by customers: original research. *Acta Commercii*, 14(2), 1-8.
- Timmis, S. (2012). Constant companions: Instant messaging conversations as sustainable supportive study structures amongst undergraduate peers. *Computers & Education*, 59(1), 3-18.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1-17.
- Velasco, M. S. (2014). Do higher education institutions make a difference in competence development? A model of competence production at university. *Higher Education*, 68(4), 503-523.
- Witell, L., Kristensson, P., Gustafsson, A., & Löfgren, M. (2011). Idea generation: customer co-creation versus traditional market research techniques. *Journal of Service Management*, 22(2), 140-159.
- Yeo, R. K. (2009). Service quality ideals in a competitive tertiary environment. *International Journal of Educational Research*, 48(1), 62-76.