Chapter 3
Value Co-creation, Collaborative Learning and Competences in Higher Education

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Abstract Value co-creation is a current topic in the field of marketing. However, little knowledge has been applied to the context of university education to improve students' skills. Setting out from this research gap, this research's main objective is to provide the dominant achievements of a project of educational innovation associated with the learning of marketing and developed between the universities of Seville (U.S.) and Málaga (UMA) in the framework of the Andalucía TECH Proyect. 331 students took part, addressing development work in mixed groups through the Open-source learning platform in the Moodle environment. Regarding generic skills related to the European Higher Education Area, the surveys of students who have participated in the project reveal that their taking part in the project has allowed them to mainly improve the following skills: (a) collaborative teamwork; (b) efficient time use; (c) handling new online resources; (d) finding new ideas and solutions. They also showed a high satisfaction with the resources available, the improvement of their competences and, globally, their participation in the value co-creation process.

3.1 Introduction

In recent years, the concept of value co-creation has attracted the interest of researchers in different fields of study, particularly that of marketing (Yi & Gong, 2013). This has been associated with the new paradigm of Service-Dominant (SD) logic.

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This emphasizes not the consumer's decision-making process—linked to the choice and purchase of products and services—but rather the consumption experience itself. This can be shared with the organization for the creation of value (Vargo & Lusch, 2004). In this context, the core concept of SD logic is that the customer is always a value co-creator. As active participants and collaborative partners in relational exchanges, customers co-create value with the firm through their involvement in the entire service–value chain.

Co-creation is based on the opportunities of value creation via an interactive process with both customers and employees, suppliers, etc. (stakeholders) to make them participants in the definition of their interactions with the firm. To co-create involves the development of a process of cooperation between the firm and the stakeholders. The aim of this is to create unique experiences which contribute mutual value (Xie, Bagozzi, & Troye, 2008). It therefore involves a new way of approaching businesses and breaks with the traditional paradigm in which the product is completely designed within the firm and offered to the customer. In the co-creation approach, the customers are the ones who, along with the firm, define the product to be made or the service to be provided (Fang, Palmatier, & Evans, 2008).

These new proposals have spread to different fields of study, such as service provision in the health area (McColl-Kennedy, Vargo, Dagger, Sweeney, & van Kasteren, 2012; Merz, Czerwinski, & Merz, 2013), the provision of electronic services (Zhang, Luo, & Li, 2012), the development of new products (Hoyer, Chandy, Dorotic, Krafft, & Singh, 2010), etc. However, it is not a concept which has been applied to the area of innovative education. This means that there is an important research gap in this regard. The general aim of this present research is to fill this gap. Specifically, we have set out from an educational innovation project in the Andalucía TECH area in which the Universities of Seville and Malaga have taken part. The co-creation of a virtual platform for the permanent interaction and collaboration between teachers and students in different marketing subjects in these universities has brought about the improvement of the students' competences. This is a priority in the European Higher Education Area (EHEA).

The current work has the following structure. First, we define the theoretical framework. Here we speak about the students' competences in the EHEA, the Andalucía TECH project and the most relevant aspects of the value co-creation process. Second, we explain the educational innovation project that has been developed. This means finding out how co-creation between students of marketing in the area of educational innovation can improve the students' competences. Finally, we present the study's results as well as its conclusions and most relevant contributions.

3.2 Theoretical Background

3.2.1 Students' Competences in the EHEA

The EHEA is an area of educational innovation begun in 1999 with the Bologna Process. This wishes to harmonize the different educational systems of the European Union and supply an efficient exchange between students, as well as endowing the

process of change undertaken by these European Universities with an unprecedented dimension and agility. The main aims of the EHEA are to be the principal protagonist of the learning process, permanently influencing the improvements of its competences. It is a question of a change of the teaching approach, passing from "what the teacher teaches" to "what the student learns": the students' competences are the epicenter around which the higher education system revolves.

In this context, the Spanish Ministry of Education and Science defines competences as a combination of knowledge, skills (intellectual, manual, social etc.), attitudes and values which will train a person with a degree to fully cope with problem solving or intervention in a matter in a specific academic, professional or social context. This involves conceiving the students' competences from an integrated perspective, taking into account what a person is able or competent to carry out, and their degree of preparation, sufficiency and/or responsibility for certain tasks (González, 2008).

The competences of EHEA students are classified in a transversal manner and linked to the specific design of each degree. These must explain the results of the learning of a subject. In the current research, we center on the transversal competences of the students which can be instrumental, interpersonal and systemic (Table 3.1).

Table 3.1 Transversal competences in the EHEA

Instrumental competences
Capability of analysis and synthesis
Efficient use of time via organization and planning
Oral and written communication
Communication in a foreign language
Ability to use new online resources and information and communication technologies—ICTs—in the study and professional area
Information management
Ability to find new ideas and solutions, facilitating problem solving and decision-making
Interpersonal competences
Critical and self-critical ability
Teamwork, including the ability to integrate and communicate with experts in other areas and in different contexts
Recognition and respect of diversity and multiculturalism
Interpersonal skills
Ethical commitment
Systemic competences
Autonomous learning
Adaptation to new situations
Creativity
Leadership
Initiative and entrepreneurial spirit
Openness to lifelong learning
Commitment to professional identity, development and ethics
Processes management with quality indicators

3.2.2   Andalucía TECH Project

Andalucía TECH is the name of the project launched jointly by the University of Seville and the University of Malaga. It seeks to attract talent and integrate it into Anadalusia with a view to forming an ecosystem of knowledge and innovation generation—committed to the society—which enables the raising of the level of excellence of teaching and research activities. Special attention is paid to the technological areas of production, information and communications, as well as biotechnology. In October 2010 the project was selected by the Ministry of Education as a Campus of Intellectual Excellence (CIE), and counted on the support of two technological parks (Cartuja 93—Seville- and PTA—Malaga-), as well as the Regional Government (Junta de Andalucía) and different national and international firms.

The Andalucía TECH CIE is an ambitious and innovative project. From its inception, it was conceived from the opportunities which arose out of the merger between positioning and the capacities and strengths of the different agents and entities which make up the Science, Technology and Firm System. Its "mission" is to attract, integrate and develop talent, enabling the raising of the level of excellence of teaching and research activities via a sustainable, open and universal scientific-technological Campus model. Its "vision" is to become an international reference for the Knowledge Society—a central aspect of the EHEA. The development of teaching innovation projects based on value co-creation in which interuniversity talent and knowledge is shared contribute to this.

3.2.3   Value Co-creation in the EHEA

As students are a part of the University during their Degree, Post-Graduate and PhD studies, they can be conceived as being customers (Edo, Puig, & Zornoza, 1999). These students or "customers" are the epicenter of the EHEA. The aim is to improve their competences and facilitate their access to the labor market. In this context, if the value co-creation processes involve an interaction between the firm—in our case, the University—and the customers—in our case, the students—to design offers which create value for them, it seems clear that value co-creation is perfectly applicable to the university context (Gherghina, Nicolae, & Mocanu, 2010). Moreover, if we take into account that the students and their competences are one of the central pillars of the EHEA, the question that we are left with is how co-creation can add value—in the form of improving competences—among university students. To do so, it is necessary to bear in mind that the key to co-creation is to have a platform where the commitment between the parties can take place. This platform will include interfaces, processes and, most importantly, people—in our case, teachers and students—who will allow the value created to be shared by everyone. Four key principles are involved:

1. *Transparency*: it is very important to ensure that the interactions in the platform are transparent to all the participants.
2. *Accessibility*: it is necessary to check that all the participants have an appropriate level of access, not only to access the content of the platform and use it, but also to modify it and expand it.
3. *Commitment*: involves ensuring the wish to dialogue and the contribution of all the project's members.
4. *Flexibility*: means to use the contributions of the participants and their interactions in the platform to improve the platform's content and the experience of the participants themselves.

Next, taking into account the essential principles which must be guaranteed in any value co-creation process, we will detail the educational innovation project developed to improve the marketing competences and learning of the students of the Universities of Seville and Malaga.

3.3 Value Co-creation Project and Collaborative Learning in Marketing

3.3.1 The Project's Initial Phase

With the idea of taking advantage of the framework offered by Andalucía TECH associated with the use of new technologies and to improve the transversal competences of the students in marketing, the Value co-creation project and Collaborative Learning in Marketing was started in May 2013. This is a competitive, biannual project designed by the Ministry of Education and Science in which the Universities and Seville and Malaga take part. The project's central idea is to co-create a virtual platform between the teachers of both universities and the students who participate in the project. The idea of this is to have a space where knowledge can be shared, the development of work groups can be facilitated, continuous evaluation tests can be carried out, etc. In brief: to add value to the teaching in marketing. To do so, in this initial phase of the project, the students of Business Management, Market Research, Tourist Marketing and Business Distribution (all marketing subjects in the Degree in Business Administration and Management, the Degree in Marketing and Market Research or the Degree in Tourism in both universities) were offered the possibility of taking part. What the project consists of was explained to all the students, always maintaining the maximum transparency. A total of 331 students agreed to participate. Their distribution is shown in Table 3.2.

A platform was initially created through Moodle. Via access (email and National Identity Card or Passport), all the teachers and students of the Universities of Seville and Malaga taking part in the project could express "how the Platform to be created should be and what resources it should contain", with the aim of improving the students' transversal competences. In this way, accessibility and transparency—two

Table 3.2 Students associated with the project per University (Academic Year 2013–2014)

	University of Seville	University of Malaga
Business management	43	38
Market research	51	47
Business distribution	46	35
Tourist marketing	34	37
Total	174	157

key aspects of value co-creation—were guaranteed. From the virtual brainstorming through the platform, the main resources pointed out were:

- *Databases* which allow the participants to create, maintain and seek information in a records repository.
- *Chat* which permits the participants to synchronically discuss by texting in real time.
- *Forum* which lets the participants have asynchronous discussions and can be used to solve a case, debate a project, discuss or solve problems, etc.
- *Task* which allows a professor to evaluate the students' learning via creating a task to be carried out and then revised, valued and qualified.
- *Blogger* is a webpage where one or more people chronologically publish texts or papers. The author always conserves the freedom to leave published what is believed to be pertinent and the readers themselves tend to actively participate through their comments. It is very useful to publish one's own ideas and opinions about different topics.
- *Wiki* which permits the participants to collaboratively add and edit a collection of webpages. A record is kept of the previous versions of each wiki page, thus allowing the changes made by each participant to be consulted.

3.3.2   The Development Phase of the Project

Students and professors both reached the conclusion that, as the contents of each subject are different, as are the evaluation requirements, etc., the platform was to be structured into sub-platforms. In this way, each subject had an independent virtual space. This was done taking into account the commitment of adapting to the needs of the students of marketing of the Universities of Seville and Malaga and the flexibility that any value co-creation project involves. On the other hand, keeping in mind that the project also has to be able to improve the students' transversal competences, it was especially designed for the development of continuous evaluation systems. Work group participation and development was essential in them and it was recommended to make up groups in such a way that each of them had 50 % of students from each University. Thus, given the greater complexity of developing the work groups in person, the platform's virtual usability was guaranteed. The next step was

to define the time periods in which the students were going to be able to use the platform in order to improve their competences. These time periods coincided with the semester to which the subject belonged (Academic Year 2013–2014) in such a way that during it each student could make use of the resources available, upload and download contents, contribute to the development of group works, take part in the forum, solve the questions proposed by the professors of each subject, etc.

3.3.3 Results of the Project: Value Co-creation and Competences

In the final phase of the project 331 students were asked to value on a 5-point Likert scale (1.—No improvement…5.—Great improvement) how they perceived that their transversal competences had improved with participating and being involved in the project as well as their satisfaction (1.—Very low…5.—Very high) with the versatility of the resources available and with the project in general (Table 3.3). As can be seen in Table 3.3, the students of marketing of the Universities of Seville and Malaga involved in the process in general perceive that their transversal competences have improved with their participation in the value co-creation project developed together with the professors. Specifically, the competences where a greater improvement was noted are those associated with teamwork, including the ability to integrate and communicate with experts of other areas and in different contexts, the competences linked to the efficient use of time via organization and planning, the ability to handle new online resources and the use of ICTs in the study area and professional context, as well as the ability to find new ideas and solutions, facilitating problem solving and decision-making. The students also showed high levels of satisfaction related to both the resources available and the improvement of their competences, indicating a high level of global satisfaction with their participation in the value co-creation project.

3.4 Conclusions

Though value co-creation has not been applied to the university area until now, this work shows that value co-creation is an extraordinary tool at the service of teaching innovation. It can create value added via an interactive process between professors and students, making them participants of the defining and achieving of their interactions n the university area. This means a break with the traditional paradigm in which professors and students are placed in different areas. However, in the context of value co-creation, students interact with professors, have the ability and the flexibility to adapt the content to their aims, to incorporate the materials that interest them, etc. It is a question of sharing the same space; in this case expressed via a virtual platform where the four basic principles of value co-creation are guaranteed:

Table 3.3 Level of improvement of the transversal competences of the students in marketing with the Value co-creation project

Competences	Average
Instrumental competences	
Capability of analysis and synthesis	4.26
Efficient use of time via organization and planning	4.63
Oral and written communication	3.82
Communication in a foreign language	3.71
Ability to use new online resources and ICTs in the study and professional area	4.59
Information management	4.33
Ability to find new ideas and solutions, facilitating problem solving and decision-making	4.47
Interpersonal competences	
Critical and self-critical ability	3.95
Teamwork, including the capacity to integrate and communicate with experts in other areas and in different contexts	4.82
Recognition and respect of diversity and multiculturalism	3.38
Interpersonal skills	4.15
Ethical commitment	3.32
Systemic competences	
Autonomous learning	3.86
Adaptation to new situations	4.03
Creativity	4.23
Leadership	4.01
Initiative and entrepreneurial spirit	4.08
Openness to lifelong learning	3.94
Commitment to professional identity, development and ethics	3.73
Processes management with quality indicators	3.31
Satisfaction	
Satisfaction with the resources available	4.89
Satisfaction associated with the improvement of competences	4.76
Global satisfaction with the value co-creation project	4.91

transparency, accessibility, commitment and flexibility. This facilitates the achieving of their aims for both the professors and the students. For the professors, it facilitates the learning process, as at all times the professors and the students are interactively involved in the process. This means the development of active and participatory teaching methods, increasing the success of knowledge generation.

For the students, one of their great aims is associated with the improvement of transversal competences. These can create value in their access to the labor market. This present work shows that value co-creation can influence the improvement of the students' instrumental, interpersonal and systemic competences. Specifically, value co-creation will help to improve the competences linked to teamwork, the efficient use of time, the handling of new online resources and the use of ICTs in the

study and professional area, as well as the ability to find new ideas and solutions, thus facilitating problem solving and decision-making. All of this will have a favorable impact on the students' satisfaction with the learning process, the resources available and the improvement perceived in their competences, hence influencing their global levels of satisfaction with the development of value co-creation projects in the area of teaching innovation.

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