

# Non-profit organization-business value co-creation: conceptualization and scale development

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## Abstract

The value co-creation strategy is adopted by companies in its relationships with stakeholders as a mechanism to improve the performance of their activities. Both from the perspective of Corporate Social Responsibility (CSR) practices carried out by companies, and from the approach of the mission that non-profit organizations (NPOs) must effectively fulfil, adopt the strategy of co-creation in activities, projects, programs, etc. that both entities jointly develop is essential to achieve the expected organizational and social value. However, although the value co-creation between companies and customers has been substantially investigated, there is a significant gap in both theoretical and empirical research into the adoption by the NPOs. Therefore, after reviewing the literature on co-creation, an NPO-business value co-creation scale is developed in the empirical part, consisting of four basic dimensions: participation, reciprocity, learning, and engagement. The scale shows reliability and construct validity. The main conclusions and practical implications are presented.

## Key words

Value co-creation; Non-profit organizations-business relationships; Scale development; Non-profit organizations.

## How to cite this article

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**The objective of this paper is to develop a scale of non-profit organization (NPO)-business value co-creation**

## 1. Introduction

In the current competitive environment, in which networks and social relations are essential to promote the capacity to create value and achieve competitive advantages for the company (Polese, 2009), co-creation emerges as a process through which companies integrate individuals and citizens as active co-creators in all parts of the value chain (Ramaswamy, 2009).

Therefore, the value co-creation reinforces suppliers and customers' active roles (Andreu, Sánchez & Mele, 2010), and implies the use of their own resources and capabilities, through interactions and transactions, in the business processes, to share and integrate them in accordance with its own objectives (Payne, Storbacka & Frow, 2008). However, the co-creation approach aims to serve the interests of all stakeholders (Ramaswamy & Gouillart, 2010), through an orientation towards interactions with internal and external business partners of the company (Polese, 2009).

One of the key stakeholders for the companies with which to co-create is the non-profit organizations (NPOs) (Ramaswamy, 2009). In this sense, the joint development between the NPO and the company of an integrated business model and the delivery of mutual value is significant from the point of view of the Corporate Social Responsibility (CSR) strategy of the companies (Brugmann & Prahalad, 2007). Also, NPOs can more effectively fulfill their mission objectives (Austin & Seitanidi, 2012).

Thus, given the imperative of finding innovative solutions to social problems, intersectoral alliances constitute an organizational modality to generate important social and organizational value (Austin, 2010; Austin & Seitanidi, 2011). Regarding the NPO-business co-creation, Austin and Seitanidi (2012: 744) state that "it is clear from the literature review that value creation through collaboration is recognized as a central goal, but it is equally clear that it has not been analyzed by researchers and practitioners to the extent or with the systematic rigor that its importance merits. Although many of the asserted benefits (and costs) of collaboration rest on strong hypotheses, there is a need for additional empirical research –quantitative and qualitative, case study and survey– to produce greater corroborating evidence". However, the NPO-business co-creation process has rarely been considered from the NPO perspective (Al-Tabbaa, Leach & March, 2014; Al-Tabbaa, 2017).

In particular, the specialized literature does not identify a scale that allows evaluating and measuring the extent to which NPOs adopt strategies of value co-creation in its collaborative relationships with companies. Therefore, there is a limitation of the analysis of the conditions, moderators and consequences of this management approach. Thus, the main objective of this paper is to develop a valid and reliable scale of measurement of a value co-creation strategy adopted by NPOs in its relations with private companies, which can serve as a strategic reference in the decision making of both parties involved in co-creation.

In order to achieve this objective, and after reviewing the literature on value co-creation, an NPO-business value co-creation scale of measurement is developed in the empirical part. Finally, the main conclusions and practical implications for NPO management, as well as the limitations and future lines of research, are established.

## 2. Theoretical framework

The value co-creation, which has been substantially investigated in recent years (Prahalad & Ramaswamy, 2004; Ramaswamy, 2009; Spohrer & Maglio, 2010; Grönroos & Ravald, 2011;

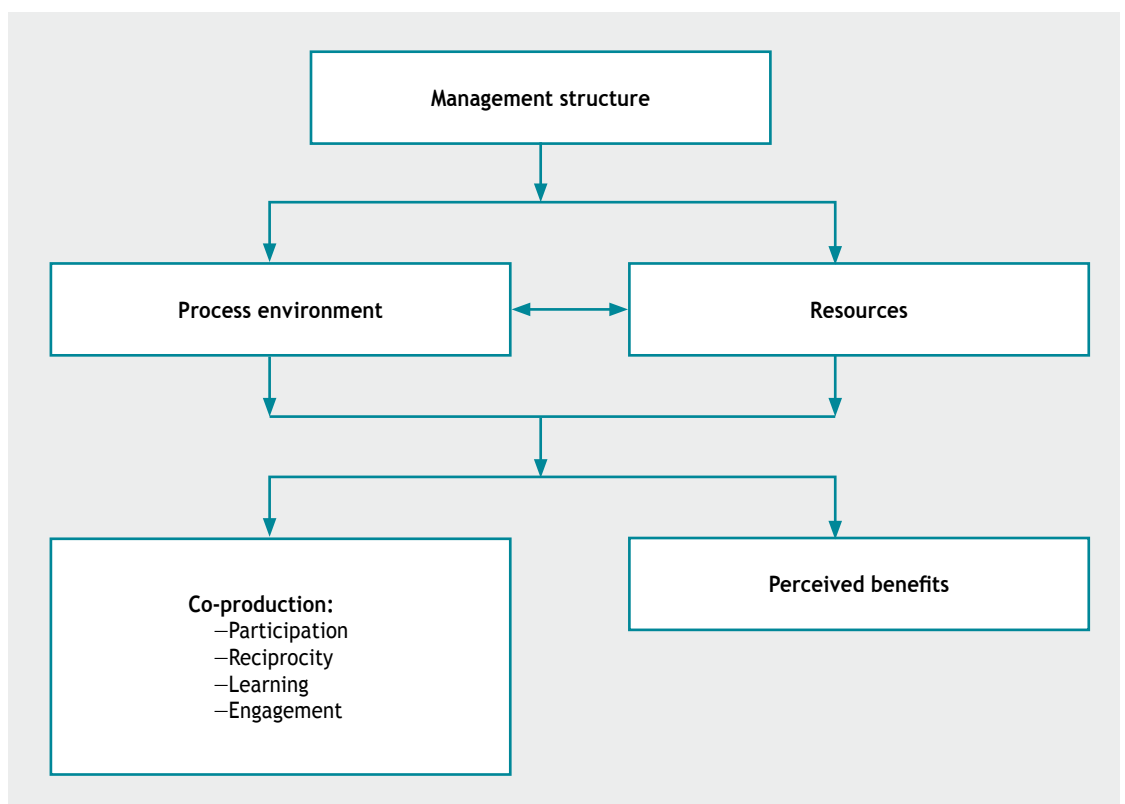
**Co-creation entails a rethinking of the purpose of the organization and its collaborative role in creating value**

(Grönroos, 2012; Bharti, Agrawal & Sharma, 2015; Ranjan & Read, 2016), can be defined as “the joint actions by a customer (or other beneficiary) and a service provider during their direct interactions” (Grönroos, 2012: 1520).

Currently, research on the co-creation of value is determined by the theory based on the Service-Dominant Logic (SDL) (Vargo & Lusch, 2004; Vargo, Maglio & Akaka, 2008; Vargo & Lusch, 2016), which provides an understanding of how companies, customers and other market participants co-create value through their interactions. In this sense, the value co-creation implies an approach towards intangibles, such as skills, information and knowledge (Vargo & Lusch, 2004). It also involves the development of interactivity, connectivity and relations between the parties involved in the process (Vargo & Lusch, 2004), which entails a rethinking of the purpose of the organization and its collaborative role in creating value with the actors involved in the exchange (Vargo & Lusch, 2008).

After carrying out a detailed bibliographic review on the literature of value co-creation, through an analysis of thematic content, Bharti et al. (2015) identified the five critical dimensions (and its latent sub-dimensions) of the business-customer co-creation process: process environment, resources, co-production, perceived benefits, and management structure. These authors argue that these dimensions and its sub-dimensions “are the basis of almost all processes of co-creation of value” (Bharti et al., 2015: 593) (see Figure 1).

Figure 1  
**Interrelationships between the value co-creation dimensions**



Source: Bharti et al. (2015).

**In the context of value co-creation, intersectoral alliances between companies and NPOs can be included**

According to Bendapudi & Leone (2003), co-production is one of the most important elements of value co-creation. In fact, the remaining elements can be understood as conditioning factors and/or as consequences. In this sense, four main sub-dimensions of co-production are distinguished:

- Customer participation: degree to which the customer shares information, provides suggestions and participates in the decision-making process shared with the company during the co-creation process (Chan, Yim & Lam, 2010; p. 4).
- Customer involvement: participatory and dynamic linking (learning) of customers with the company (Vargo & Lusch, 2004).
- Partnership and engagement: the significant involvement of the company and its employees (physically, cognitively and emotionally) with customers (Kahn 1990; p. 692) and the promotion of the long-term relationship between both parties.
- Mutuality: receptivity and pro-activity towards the other party in the relationship based on mutual interest, that is, openness towards the influence of the other party, its availability and predisposition to change depending on the state of the other party (Jordan, 1986).

Furthermore, Ranjan and Read (2016), after a review of the academic literature on value co-creation, extract two main dimensions of co-creation, co-production and value in use, as well as three key co-production elements (information exchange, equity and interaction) and three elements of value in use (experience, relationship and personalization). Regarding the elements of co-production:

- In relation to customer participation, established by Bharti et al. (2015) as a dimension of co-production, the information shared between the company and the customer generates greater competition in co-creation.
- Also, regarding reciprocity or mutuality, the company will to share control in favor of customer empowerment is the essence of equity.
- In addition, the interaction between customers and the company, which is manifested through participation, dialogue, and engagement, allows a complex exchange between both parties by considering the possibility of generating solutions (Ranjan & Read, 2016). Therefore, it highlights the importance of involvement in the customer relationship, as well as partnership and engagement.

In relation to the value in use, and its three sub-dimensions (experience, relationship and personalization), Ranjan and Read (2016) consider them a basic part of value co-creation. In this context, Bharti et al. (2015) showed that customer experience, customer learning, value, expected benefits and problem solving are some of the perceived benefits considered important by the customer. In addition, according to Ranjan and Read (2016), the joint, reciprocal and iterative processes, which are the basis of the relationship between the customer and the company, occur: (1) in an active communication environment, and (2) through commitment and mutual use of resources (Ng, Maull & Yip, 2009), meaning that process environment and resources are conditioning factors for value co-creation.

Moreover, the process of value co-creation implies that the role of the customer is refined, changing from being a passive agent to being considered a provider of important resources (knowledge, creativity ...) in the relationship with the company (Saarijärvi, 2012). However, the best form of value co-creation is attention to all stakeholders' experiences (Ramaswamy &

**NPO-business value co-creation model is defined, consisting of four key dimensions: participation, reciprocity, learning, and engagement**

Gouillart, 2010). Thus, co-creation with stakeholders poses a number of challenges due to their different characteristics, interests and objectives, and creates benefits for the company, such as access to unique resources and knowledge (Kazadi, Lievens & Mahr, 2015).

In the context of value co-creation, intersectoral alliances between companies and NPOs can be included (Austin & Seitanidi, 2012), in the sense that the value creation process generated by the collaborations between both entities implies organizational benefits for companies and NPOs, in addition to benefiting society (Al-Tabbaa et al., 2014).

In addition, according to Anheier et al. (2014; p. 4), “non-profits engage in advocacy activities to protect or advance the position in society and welfare of people needing help [...] Non-profit organisations are hypothesised to be an important element of social self-organisation, to “give voice” to those otherwise unheard, and to support those who would otherwise find little or no attention”. Thus, the characteristics of NPOs that identify them as social innovators are (Anheier et al., 2014; p. 37): (1) their social needs orientation; (2) their greater ability to detect social needs; (3) their ability to give voice to minority groups; (4) their high degree of social capital as a result of citizen participation, which increases the acceptance of innovations and, therefore, serves as a significant variable in the construction and maintenance of legitimacy; (5) their real engagement to change.

In fact, social innovators, such as NPO, act as agents of change in society, taking advantage of opportunities that others miss, improving systems, introducing new methods and creating solutions to regenerate society (Păunescu, 2014). Thus, NPOs, by developing socially innovative programs, projects, services or activities, such as the co-creation of services and products with companies, can generate a positive social impact (Álvarez-González, García-Rodríguez, Sanzo-Pérez & Rey-García, 2017). In this regard, through the NPO-business intersectoral alliances (PwC, 2015; pp. 55-57): (1) social agents achieve their objectives faster and on a large scale; (2) the private sector generates social and economic value for all its stakeholders.

Through the contribution of complementary capacities along each stage of the value chain, to jointly develop products or services, the company and the NPO create and deliver value in new ways and minimize costs and risks (Dahan, Doh, Oetzel, & Yaziji, 2010). Companies can have potential positive effects on business performance and profitability as they actively become involved with NPOs (Den Hond, De Bakker & Doh, 2015). NPOs can generate the necessary value to successfully complete its defining missions (Austin, 2010; Austin & Seitanidi, 2012), increase its resources, increase its exposure and networks, and acquire new skills and practices (Schiller & Almog-Bar, 2013).

Thus, taking the work of Bharti et al. (2015) as reference, an NPO-business value co-creation model is defined, consisting of four key dimensions. According to this model, co-creating firstly implies the participation of the collaborating company in the stages related to the collaboration process (participation). It also assumes that each partner gives and receives in the same proportion as the other party in the relationship (reciprocity), as well as the link between the company and the NPO through the information obtained from it (learning). Finally, it is additionally required that there be an effective involvement of the company with the NPO (engagement).

Therefore, in the absence of a specific scale of adoption by NPOs of a co-creation strategy in its collaborative relationships with companies, the empirical aim of this paper is to develop a valid and reliable scale of measurement of NPO-business co-creation, in accordance with the proposed model.

In order to strengthen the content validity of the scale, a Delphi Analysis was carried out

### 3. Scale of measurement of the NPO-business value co-creation strategy

The scale of measurement has been developed following the methodological process through the following sequential stages (Churchill, 1979; Netemeyer, Bearden & Sharma, 2003): (1) content validity of the scale, (2) data collection and editing, and (3) assessment of dimensionality, construct reliability, and convergent and discriminant validity. Each of these stages is described below.

#### 3.1. Content validity of the scale

Despite the proliferation of relevant literature on value co-creation in recent years, no exhaustive scale globally accepted by the academic world is identified that validly and reliably allows to evaluate this strategy from the point of view of the relationship that NPOs have with private companies. Therefore, it was decided to generate a scale of NPO-business value co-creation from the critical dimensions and sub-dimensions of the co-creation established by Bharti et al. (2015), after an extensive literature review of thematic content.

In particular, as specified in the previous section, five main dimensions (as well as a set of critical sub-dimensions) of value co-creation was established: management structure, process environment, resources, co-production and perceived benefits. However, the first three (management structure, process environment and resources) can be considered as antecedents or conditions of co-production, while perceived benefits would be the consequences of it. As a result, co-production must be considered in itself as the central pillar of the specific NPO-business value co-creation strategy.

For its evaluation, a multi-item scale of NPO-business co-creation is proposed, developed from the four critical sub-dimensions of co-production established previously: customer participation; reciprocity; customer involvement; and partnership and engagement. These sub-dimensions have been called as follows: (1) participation, (2) reciprocity, (3) learning and (4) engagement, so that they reflect its meaning more accurately.

Afterwards, we proceeded to select the items related to each of the four dimensions previously indicated, adapted to the NPO-business relationship and its inherent characteristics. The result was a first relationship of 31 items. Specifically, the items of the participation dimension (in our case, of the collaborating company), and those of the reciprocity dimension have been obtained from its definition and fundamental characteristics described by Bharti et al. (2015). The items of the learning dimension come from the scale used by Sanzo, Santos, García and Trespalacios (2012). Finally, the items of the engagement dimension derive from the scale of Vivek, Beatty, Dalela and Morgan (2014).

In addition, in order to strengthen the validity of the content of the scale, a Delphi Analysis was carried out. The Delphi technique “is a widely used and accepted method for gathering data from respondents within their domain of expertise” (Hsu & Sandford, 2007: 1). Specifically, we had the collaboration of nine researchers and / or managers in the field of social innovation, corporate social responsibility, non-profit marketing, value co-creation or management of NPOs. All of them were selected according to the recommendations of Hsu and Sandford (2007) regarding (1) their specialization in the thematic areas to be analyzed, and (2) their high training and competence in the areas of knowledge related to the topic of the study. The Delphi was carried out in three main phases or stages, which bring together Ortega’s methodological proposals (2008: 32-33), as detailed below:

- In the first stage, experts were given a cover letter, describing the dynamics of the technique and the relationship of 31 items of the four dimensions that initially formed the



### A census of Spanish NPOs which potentially co-create value in its relations with private companies was developed

NPO-business co-creation scale. Specifically, they were asked to indicate whether the wording of each item was valid to evaluate the dimension to which it was linked, by using a 1 to 7 scale, in which 1 indicated that “the item is not valid at all”, and 7 showed that “the item is perfectly valid”. In addition, a blank space was left in each dimension to make observations, clarifications or comments to the initial wording, as well as to provide new items, if deemed appropriate.

- In a second and third stage, after calculating the average and mode of scores given by experts to the writing of each item, according to the proposal of Hasson, Keeney and McKenna (2000: 1012), and assessing the observations made, we proceeded to eliminate, merge, modify or add items to each scale. The result of this process was presented to each of the nine experts participating in the Delphi analysis, as well as the initial score assigned to each item in the first stage, aiming to ratify it in its initial score or to modify it instead, after comparing both values.

The final result was a initial scale, comprising critical dimensions of the NPO-business value co-creation, with 32 items formulated in a seven point Likert-type scales, from 1 (total disagreement) to 7 (total agreement).

### 3.2. Data collection and editing

A census of Spanish NPOs which potentially co-create value in its relations with private companies was developed, to the extent that they collaborate or have collaborated with them in the development of projects, programs or activities that favor the achievement of its organizational mission. This NPO census was necessary in the absence of an analogous one in public records. Its preparation had its starting point in a previous work between innovative social NPOs (Álvarez-González et al., 2017), and resorted to about twenty secondary sources of information.

Figure 2 describes the census in relation to its main classification variables: year of incorporation, legal form, founders, type of beneficiaries, type of activity carried out, geographical scope of action, and size (by volume of income in euros).

Figure 2  
NPO Census: Classification Variables

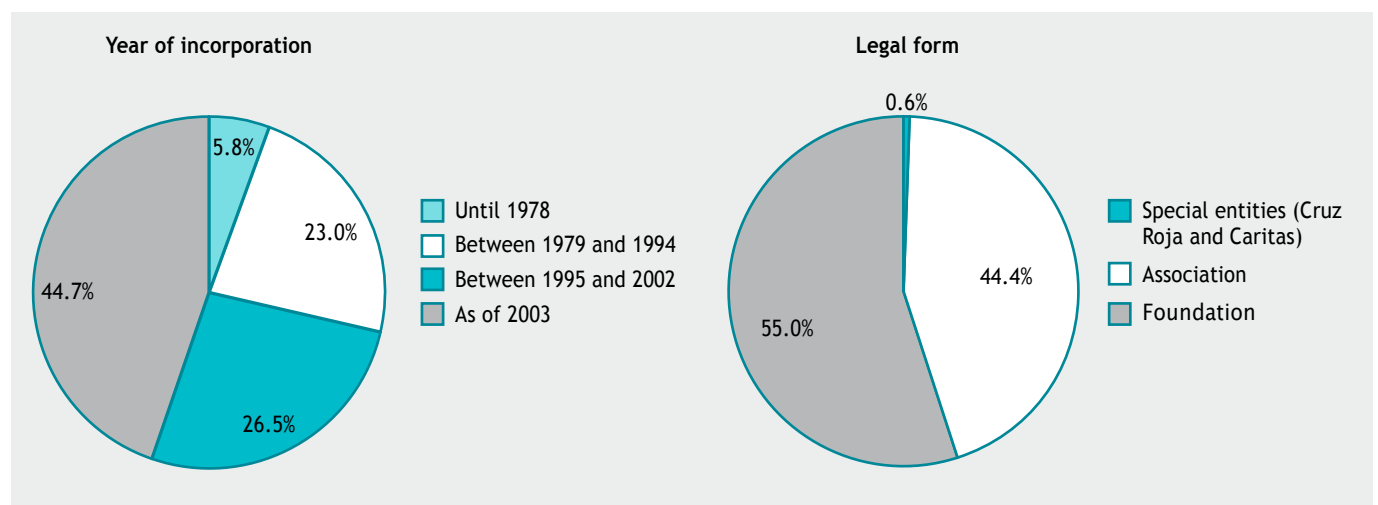
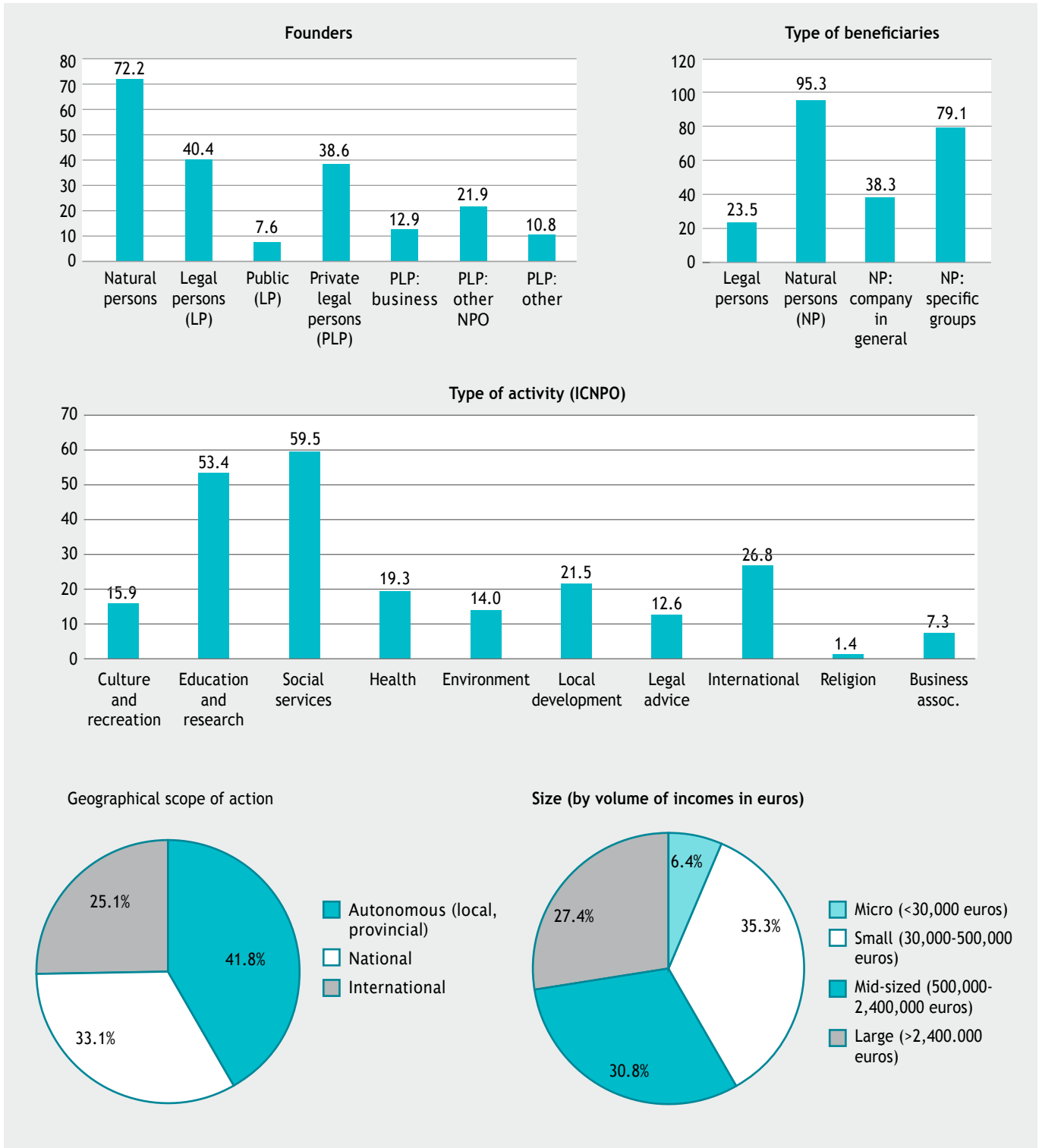


Figure 2 (continued)  
**NPO Census: Classification Variables**



Source: own elaboration.



**Results related to dimensionality, reliability and validity (convergent and discriminant) of the scale are presented**

After setting up the census, collaboration in the study was requested to 358 NPOs through a self-administered structured online survey. The recipient of the questionnaire was the Director or, failing that, the President of each NPO in charge of daily management. The sample, initially set by 212 NPOs, reached 205 NPOs, after eliminating those insufficiently filled questionnaires or whose reliability raised doubts. Therefore, the response rate was 57.3% over the configured census, with a sampling error of  $\pm 4.5\%$  (95% level of confidence for  $z = 1.96$  and the most unfavorable case in which  $p = q = 0.5$ ). Table 1 summarizes the data in the data sheet of the empirical study.

Table 1  
**Data sheet of the empirical study**

Sample group	Spanish innovative social NPOs, which collaborate or have collaborated with private companies
Geographical scope	National
Information collection method	Online survey through structured questionnaire, with previous telephone contact
Sample Unit	Director or President of the NPO
Population census	358 Spanish NPOs
Sample size	205 Spanish NPOs
Sampling error	$\pm 4.5\%$
Level of confidence	95% for $z=1.96$ and $p=q=0.5$
Time period	January 2018 - May 2018

Source: own elaboration.

After the process of data collection and the corresponding process of editing or elimination of incorrect values, the data were subjected to the relevant statistical analysis processes, leading to the results which are the subject of development in the following section.

### **3.3. Evaluation of dimensionality, construct reliability, convergent validity and discriminant validity**

Afterwards, results related to dimensionality, reliability and validity (convergent and discriminant) of the specifically proposed scale in this study are presented to measure the degree of adoption by an NPO of the value co-creation strategy in its business relationships.

#### **3.3.1. Evaluation of the dimensionality of the scale**

The analysis of the proposed NPO-business value co-creation scale has been performed using the statistical technique of Confirmatory Factor Analysis (CFA) by means of structural equations. The estimation method used has been that of maximum likelihood.

The structural equation model (SEM) is a multivariable statistical analysis method that combines multiple regression and factor analysis. It is a statistical technique that allows to measure underlying latent constructs, which have been identified by means of a factorial analysis and that makes it possible to assess the existing relationships between the constructs (Hair, Anderson, Tatham & Black, 1999). The CFA is a statistical analysis technique that allows

**The objective has been achieved after the empirical analysis of the construct under analysis**

to verify if the observable variables (or indicators) adequately represent the latent variable or construct with which they are associated.

In order to assess the overall adequacy of the sample data to the structure of the proposed scale, a review of the joint measures of adjustment quality has been carried out (Hair et al., 1999). However, since CFA models do not usually adjust data in a first contrast, different adjustment models have been estimated sequentially until reaching the optimal model, considering three criteria (Jöreskog & Sörbom, 1993): (1) eliminating those indicators that have a weak convergence condition with its corresponding latent variable (a student's t-distribution greater than 2.58 is required for  $p = 0.01$ ); (2) eliminating those variables with standardized coefficients of less than 0.5, being considered as a strong convergence criterion; and (3) eliminating those indicators that have a linear  $R^2$  ratio of less than 0.3.

In the analysis carried out, no indicator has a weak convergence with its latent variable, surpassing in all cases a student's t-distribution of 2.58. Therefore, the first criterion referring to the elimination of items was not applied. Thus, this model (**Model 1**) is equal to the original model. When the second criterion was applied, some variables with standardized coefficients of less than 0.5 were eliminated, which led to a modification of the model with respect to the original model (**Model 2**). In addition, based on the third criterion, those indicators that have a linear  $R^2$  ratio of less than 0.3 were eliminated. In order to reach the optimal or most suitable model, the value of the modification indices, which must have a value of 3.84 or higher, was examined, which suggests that a statistically significant reduction in the chi-square statistic is obtained when estimating the coefficient (Hair et al., 1999). Furthermore, modification rates suggested moving items A\_1, A\_6, A\_7 and A\_8, from the learning dimension to the reciprocity dimension, which improves the model in correspondence with the underlying theory. This process led to the optimal "Co-creation of NPO-business value" model (**Model 3**), as can be seen in Figure 3.

Table 2 shows the joint measures of adjustment quality of each of the three models indicated above.

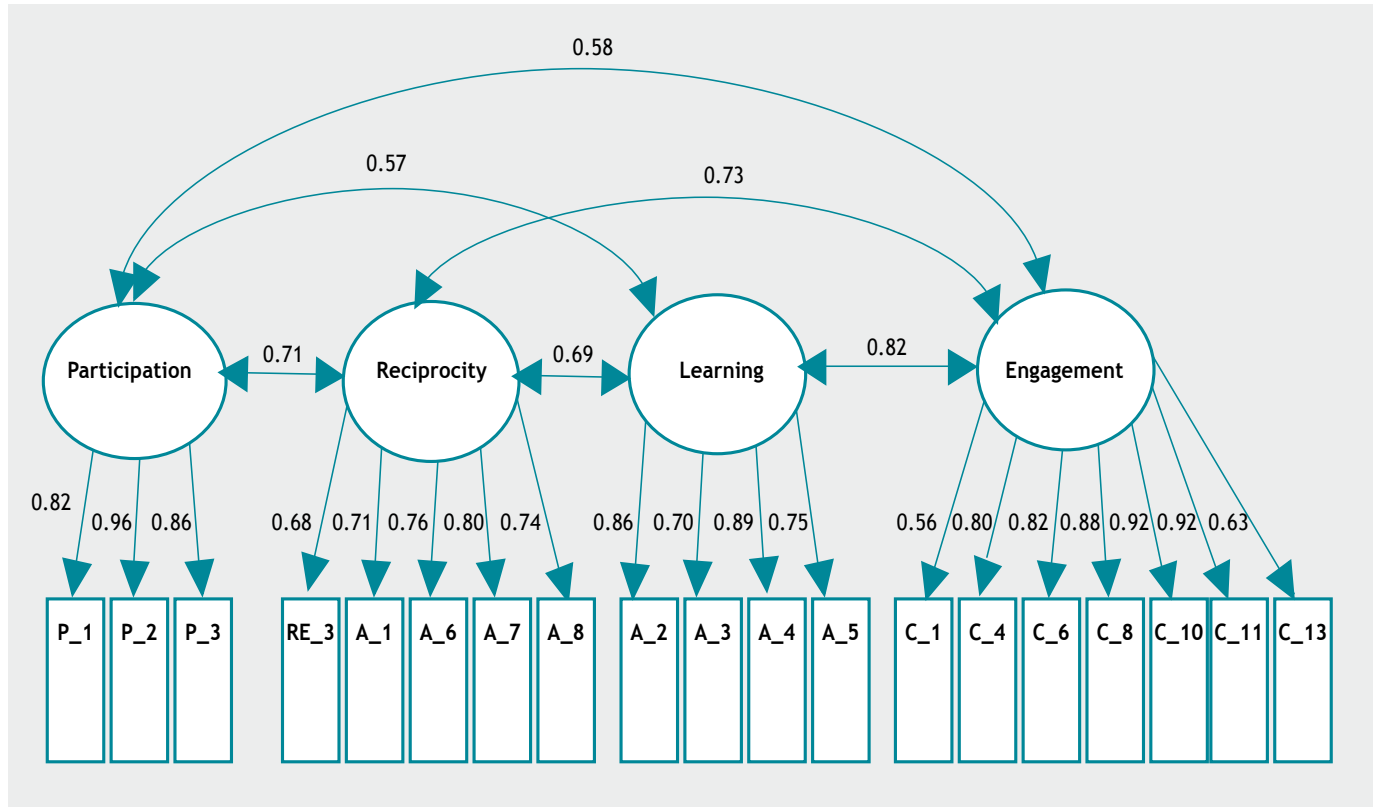
Table 2  
**Confirmatory Factor Analysis of the value co-creation scale**

Goodness-of-Fit Statistics	Model 1	Model 2	Model 3 (Optimal)
Absolute Fit Indices			
Chi-Square	1381.182 (p= 0.000)	1107.608 (p= 0.000)	<b>284.321 (p= 0.000)</b>
Chi-Square Reason / degrees of freedom	3.016	3.483	<b>1.947</b>
Comparative Fit Indices			
Comparative Fit Index (CFI)	0.766	0.791	<b>0.938</b>
Tucker-Lewis Index (TLI)	0.747	0.769	<b>0.928</b>
Others			
Root Mean Square Residual (RMSR)	0.092	0.089	<b>0.054</b>
Root Mean Square of Approximation (RMSEA)	0.112	0.125	<b>0.077</b>

Source: own elaboration.

Figure 3

## Relationship diagram of the NPO-business value co-creation scale



Note: The relationship diagram shows the standardized parameters.  
Source: own elaboration.

### 3.3.2. Construct reliability

To evaluate the reliability of the scales the composite reliability coefficient has been used. A measurement is reliable when it provides consistent or stable results in repeated measurements, that is, the measurement is made without random errors (Bagozzi, 1981). Thus, in order to evaluate the internal consistency of the measures of the model factors proposed in the study, the composite reliability coefficient is obtained, with a value of 0.8 as a reference point (Nunnally & Bernstein, 1994). This point is exceeded by the four factors analyzed, reflecting a high internal consistency (Table 3).

### 3.3.3. Convergent validity

Convergent validity refers to the fact that the same concept measures must be correlated. The convergent validity of the measurement model is confirmed on the proposed scale (Bagozzi & Yi, 1988), since: (1) there is statistical significance between each indicator and its factor, and (2) all standardized loads are greater than the minimum reference value of 0.5. Likewise, the average extracted variance (AVE) exceeds, in the four constructs of the model, the reference value of 0.5 (Hair et al., 1999). Therefore, the study confirms that the indicators converge on the established factors. In that sense, Table 3 also showed the values of the lambda coefficients standardized of items, and the AVE for each of the factors.

Table 3  
CFA of the NPO-business value co-creation measurement model

Factor	Item	Lambda Coefficients Standardized	Reliability	AVE
Participation (P)	P_1	0.818	0.912	0.777
	P_2	0.958		
	P_3	0.862		
Reciprocity (RE)	RE_3	0.680	0.857	0.547
	A_1	0.712		
	A_6	0.759		
	A_7	0.803		
	A_8	0.737		
Learning (A)	A_2	0.864	0.879	0.647
	A_3	0.700		
	A_4	0.888		
	A_5	0.749		
Engagement (C)	C_1	0.558	0.924	0.642
	C_4	0.800		
	C_6	0.818		
	C_8	0.880		
	C_10	0.924		
	C_11	0.922		
	C_13	0.626		

Source: own elaboration.

### 3.3.4. Discriminant validity

To evaluate whether the measurement model meets the discriminant validity criteria, the method of Fornell and Larcker (1981) has been used. Specifically, we check how the square of the correlations between each of the constructs is less than the AVE of the factors involved, indicating that each factor is different from the other constructs of the model (see Table 4).

Table 4  
Discriminant validity of the value co-creation scale

Factor	P	RE	A	C
P	0.777			
RE	0.500	<b>0.547</b>		
A	0.326	0.479	<b>0.647</b>	
C	0.331	0.534	0.130	<b>0.642</b>

Source: own elaboration.

**NPOs must carry out a series of practices to effectively co-create with private companies**

## 4. Conclusions and practical implications

The objective has been achieved after the empirical analysis of the construct under analysis. Therefore, a valid and reliable scale of measurement has been developed for the adoption of a value co-creation strategy by the NPO in its relations with private companies (see Appendix 1). This scale is based on the four basic sub-dimensions of co-creation: participation, reciprocity, learning, and engagement. According to these dimensions, NPOs must carry out a series of practices to effectively co-create with private companies in the execution of activities, projects, programs, etc.

Firstly, regarding the participation of the collaborating company in the design and implementation of this strategy, the NPO managers should encourage the company to provide all the important and necessary information at all times, to facilitate the suggestions it deems appropriate, and to participate in the decision making of issues related to the collaboration project. For example, by opening new communication channels between the two organizations (see the usefulness of the new online platforms for this purpose), or by allowing permanent interaction between the staff of the two parties directly involved in the relationship.

Secondly, in relation to the reciprocity that should prevail in this type of relationship, the NPO might be interested in promoting the long-term balance of costs and benefits of collaboration (if it was not equitable at a certain point in time). Also, NPO managers could encourage the actual learning of each partner with respect to the other, the joint review of past experiences to learn from the successes and mistakes, the questioning at all times by both entities of the actions carried out and the adaptation to the new circumstances, and the commitment to the same shared goal of collaboration. In order to achieve all this, it would be very interesting, for example, that managers of the non-profit entity and the company could hold regular meetings during each stage of the project, encouraging effective communication feedback.

Third, in order to deepen the learning that derives from the collaboration, NPO managers must promote in the collaborating company the acquisition of relevant information from the non-profit entity for their own activities or processes. Likewise, NPO managers must encourage the application of the information within the organizational framework of the company, its use to be more efficient and better perform its activities, and the introduction of changes in the way it operates with respect to the NPO. To this end, the NPO could provide the company with all those reports related to the projects in which the business organization is collaborating, and that could be useful to business managers for decision-making.

Lastly, with the purpose of engaging over the long term in the relationship with the company, the NPO would be interested in encouraging such commitment among company directors, as well as the interest and attention of its most direct interlocutors. Thus, the NPO should ensure compliance with the collaboration objectives by the company, the personal involvement of the aforementioned partners, their perception of enjoyment in the activities where they collaborate, the performance of teamwork that is really appreciated by them, and the creation of personal ties between partners of both parties. For example, the non-profit entity could carry out different types of events (conferences, forums ...) to promote the encounter of people directly involved in collaborative activities, or invite the company staff to participate directly in the provision of your services and personally appreciate the achievements of the alliance. In addition, NPO managers could provide relevant information to the company about the potential future projects in which the company could collaborate, thus promoting long-term links and its permanence in development.

In this paper a valid and reliable scale of measurement of NPO-business co-creation has been generated. However, the main limitation that it presents is that it has been carried out from a

## Appendix 1

## NPO-business value co-creation scale

Participation	
P_1	The company shares with us relevant information that can be used in the different stages of the collaboration processes.
P_2	The company provides suggestions for these collaboration processes.
P_3	The company participates in decision-making regarding one or more stages of the collaboration.
P_4	<i>The company has made monetary contributions to our entity.</i>
P_5	<i>It has made contributions in kind (products and / or services) to our entity.</i>
P_6	<i>The company has provided us with infrastructure and / or equipment.</i>
P_7	<i>The company has allowed its employees to dedicate hours to our entity in the form of corporate volunteering.</i>
Reciprocity	
RE_1	<i>In our collaborative relationship there is a balance between what each of the 2 parties contributes and receives.</i>
RE_2	<i>Our entity helps the company, just as the company helps us.</i>
RE_3	Even if the relationship cost and benefits are not equivalent at a certain moment of time, they are balanced in the long term.
RE_4	<i>In the relationship there are no undesirable behaviors (abuse of power, dominant positions, etc.) in the process management.</i>
A_1	We believe that the relationship is characterized by the fact that each partner learns from the other.
A_6	Both organizations (your entity and the company) jointly review past experiences to learn from successes and mistakes.
A_7	We both like to ask ourselves frequently how to do things, and we are willing to change in order to adapt to new circumstances.
A_8	Both organizations share the same goal with collaboration, to which we are committed.
Learning	
A_2	The company gets information from us that can be helpful in your own activities or processes.
A_3	We believe that such information is spread, shared and / or applied within your organization.
A_4	We believe that this information allows the company to be more efficient and / or to better perform its activities.
A_5	We believe that the company introduces changes in its management or in the way it operates, as a result of collaborating with us.
Engagement	
C_1	Business executives prove to be very committed to collaboration.
C_2	<i>We believe that company executives would like to continue collaborating with us.</i>
C_3	<i>The company (and its management bodies) seems willing to continue investing in the long term in collaboration.</i>
C_4	Business partners who collaborate with us show a lot of interest and attention for the project, program, etc., particularly where we collaborate.
C_5	<i>These partners like to know everything related to the purpose of the collaboration.</i>
C_6	Business partners who collaborate with us take the necessary time to fulfill the collaboration objectives.
C_7	<i>These partners are always looking for new opportunities to actively participate in our activities.</i>
C_8	Such interlocutors prove to be personally involved in the collaboration.
C_9	<i>The company's partners speak enthusiastically about the collaboration.</i>
C_10	Business partners seem to enjoy the collaboration a lot.
C_11	Business partners who collaborate with us enjoy teamwork.
C_12	<i>These interlocutors like the opportunity to interact with other people.</i>
C_13	The relationship that is developed between our staff and the business partners extends beyond the professional relationship, creating personal ties.

Note: in italics, the items that have been removed after the process of reliability and validation appear.

single perspective: the socially innovative Spanish NPOs. Therefore, as in any other intersectoral alliances, research should be replicated in the other part of the relationship, private companies, and identify possible dissonances.

Likewise, once the scale has been developed, the lines of research that could be developed are the following: (1) identifying institutional factors, and those defining the type of relationship established between both partners, as well as those organizational factors which can stimulate co-creation; (2) consider possible moderators of the consequences of co-creation; and (2) analyzing the consequences, at different levels of analysis (micro, meso and macro), that can be derived from it.

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