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Integrated Social Value at Universities: A Guarantee for Public Subsidies

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Abstract: The objective of this work was to monetize the integrated social value generated by a university during an academic year to justify the use of public grants received and determine their relationship with the institution's stakeholders. Monetization allows us to analyze the efficiency in the use of received subsidies. The methodology used herein was the polyhedral model, which was applied to a university during the 2017–2018 academic year in order to reflect the financial and social accounting of the institution, its relationship with stakeholders, and its efficiency in economic and social management. The results of the study highlighted the monetization of the activity of the UVic-UCC over the course of 2017–2018, guaranteeing the economic and social efficiency and dynamization of the University, as well as information regarding the return to the Public Administration by the institution and the good use of the grants it received. The monetization of economic transactions and the value variables of stakeholders allowed us to assess the impact of the institution and the added value it created. The findings indicated that the integrated social value of the UVic-UCC in the 2017–2018 academic year was EUR 64,268,260, and this guaranteed the good economic and social management of the institution and the good use of the grants it received.

Keywords: social value of economic activity; return to administration; specific social value; integrated social value

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1. Introduction

The transparency of organizations, especially those that receive public subsidies, is relevant today. In this context, new knowledge of the integrated social value is a necessity for institutions such as universities; for this purpose, social accounting is used. Teaching, research, and knowledge transfer from universities have a decisive impact on society, and social value is a variable that needs to be considered. The aim of this study was to analyze and monetize the social value generated by the University of Vic- Central University of Catalonia (UVic-UCC) during the 2017–2018 academic year. This was achieved using the integrated social value methodology developed by Retolaza et al. [1,2], which determines the economic and social value created by an organization through its stakeholders using social accounting [3]. Previous studies support the view that analyzing a single academic year does not provide an effectively restricted sample because a study needs to cover approximately three or four years to provide validity, as evidenced by the previous academic literature such as in the case of the Pompeu Fabra Public University (which has operated a Vice-Rector's Office for Social Responsibility since 2013). This university carried out a study of the integrated social value in 2015, and in 2018, together with other Catalan public universities, it recalculated the integrated social value. Likewise, in the case of the UVic-UCC, it intends to renew its next contract program with the Government of Catalonia and the University by providing evidence that the funds it received are being used properly. An analysis covering three or four years allows us to reach strong conclusions on experienced changes, trends, and deviations in monetization. In the case of the UVic-UCC, the model is

still in force and we hope to be able to analyze the integrated social value in future editions and to assess changes and deviations in monetization.

Social accounting generates legitimacy in an organization and values its sustainability, which positively affects all stakeholders by indicating social values that do not reflect the financial statements [3]. Social accounting also promotes the sustainable development of the institution and, in turn, helps to ensure that a sustainable community exists. This is in line with one of the Sustainable Development Goals (SDGs), which were created by the United Nations and are promoted as global goals for sustainable development.

The SDGs are 17 goals that cover the years 2015–2030, which were agreed on by 193 countries to achieve the sustainable development of society at the environmental, cultural, economic, and social levels.

The current research presented here aimed to answer the following research questions:

RQ1: How is the social value of the UVic-UCC monetized in an academic year?
RQ2: Once monetized, what is the diagnosis of a monetized social value?

Answering these questions involved considering the economic activity of the University (with accounting and financial indicators) and the specific social value created through this economic activity (with indicators identified by the monetized stakeholders). This study considered the social accounting of a Spanish university that combined economic and social results to create value [1,4,5] through participatory research among university representatives and stakeholders. This research area is of current significance, as evidenced by the study presented on the social value of all Catalan public universities in December 2020 by the Catalan Association of Public Universities (ACUP) with the support of the Secretariat of Universities and Research of the Generalitat de Catalunya.

The methodology used to find the integrated social value corresponded to Dr. Retolaza's polyhedral model and used qualitative (interviews with stakeholders to detect value variables) and quantitative (monetizing value variables using indicators, proxies, and algorithms) analysis to determine the social value perceived by the main interest groups or stakeholders. In the same vein, Figueras and Ayuso [6], in an assessment of the social value of universities, suggested that it enhances the accountability and justification of the use of public resources, with a goal to improve internal management and relationships with stakeholders.

Specifically, this study identified the social value generated by the economic activity of an institution and the socioeconomic returns it provided to the public authorities, which affect the calculation of the indirect social value of the exploitation of the funding for the investment providers. This study then identified the specific social value generated by stakeholders to attain the integrated social value (ISV).

The results revealed that the UVic-UCC generated an integrated social value of EUR 64,268,260 in the 2017–2018 academic year; out of this value, EUR 17,146,747 was paid to public authorities. Over double the subsidies received during the 2017–2018 academic year (EUR 6,755,910) were returned to public authorities. Specifically, the social value was 9.5 times the subsidies received. Also this study analyzes social accounting and stakeholder participation as key elements to identify the brand [7,8].

The research, after the introduction, includes a review of the literature, the relationship between social value, and the UVic-UCC brand. It also presents the University under study, detailing the scope of the research according to the methodology of the polyhedral model to arrive at the integrated social value (ISV), identifying the four phases to build the consolidated social value of the UVic-UCC in the 2017–2018 academic year and the different types of social value identified and monetized. It then discusses the results obtained and presents the conclusions derived from the study.

2. Literature Review

The impact that universities have on society can be seen in numerous ways, and it is generally accepted that universities generate social value [9,10]. There are two main types

of studies on universities' value: those that focus on knowledge and those that focus on spending [6,9,10].

Studies on the impact of knowledge establish the effects of teaching, research, and knowledge transfer and their long-term benefits, such as economic growth and social welfare. In short, they try to identify the added value that is created, as well as the social value [5,11]. In this paper, we focused on studying the impact of knowledge using polyhedral model methodology (the SPOLY process) and social accounting for the case of the University of Vic-Central University of Catalonia (UVic-UCC) in the 2017–2018 academic year.

Expenditure impact studies are usually based on three expenses: those of the institution itself, those of students, and those of teaching and administrative staff. These costs have a positive economic impact on the environment [12–15] and, in most studies of this type, the methodology of the input–output model is used.

Few papers have focused on social accounting in universities [16–18]. Some studies have addressed the social responsibility of universities [18,19], while others have focused on the accountability and control of institutions, which also shows the need for social accounting [20]. Several authors have endorsed the need for social typology studies, referring to social accounting [11,21–25]. For this reason, this study considered the social accounting of a university (UVic-UCC) in an academic year (2017–2018) using the polyhedral model for social accounting [4,5]. The process of action research identifies the value generated by an institution using stakeholder theory, with value variables defined by stakeholders, values close to the fair value of fuzzy logic, and proxies that can be used to obtain the social value [5,11,25,26]. In the absence of social accounting regulations, this methodology of indicators, proxies, and algorithms is used, in line with the scientific literature [11,27]. The integrated social value captures the social impact and conventional accounting to provide transparency for stakeholders according to Brennan, Durazzi, and Béné [28].

University social accounting serves society and identifies social benefits in keeping with the sustainability of higher education institutions [29–32], as considered in sustainability reports with indicators recommended by the Global Reporting Initiative (GRI) [17,19,33]. Thus, the economic and social impacts of universities have been analyzed in some universities, including those in England and Ireland [29], and integrated social value methodology can be used to account to society for higher education institutions. Sustainability in universities is of great interest to report social benefits to the university community itself, to interest groups, and to society in general. It should be noted that there are different approaches in universities to ensure sustainable development, and that of integrated social value is one of them. Different studies point out the need for research in the field of university sustainability; in addition, future professionals who leave universities must have the knowledge and sensitivity required in this field as future managers of sustainable development [31,32].

On the contrary, the social value of the UVic-UCC has a decisive impact on sustainable development; therefore, it considers some economic, social, and environmental aspects considered in some of the Development Objectives. The Sustainable Development Goals (SDGs) at the university level in the 2017–2018 academic year were examined in the face of the challenges and competencies in sustainability promoted by higher education [34]. The economic, social, and environmental aspects considered in the study of integrated social value at the University are consistent with the Sustainable Development Goals. Specifically, for SDG 4, "Ensuring inclusive, equitable and quality education and promoting lifelong learning opportunities for all," the value variable used in the study was 1.2: support for students with specific needs, with two indicators and proxies for their monetization (one of these indicators was the number of hours dedicated to students with special educational needs, and the proxy used the price of a support tutor in these cases). For SDG 8, "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all," the value variable used was 6.2: interns who are then hired, with an indicator referring to the hours of extracurricular practices of students and a proxy

equivalent to 10% of the gross salary received by undergraduate students according to the Catalan University Quality Agency, which evaluates, accredits, and certifies higher education in Catalonia to then proceed to monetization. Additionally, for SDG 11, "Making cities and human settlements inclusive, safe, resilient and sustainable," the value variable used was 7.2: preservation of the city's listed heritage, with an indicator referring to the catalogued recovered heritage and a proxy of the fair value invested to determine monetization. Social value includes ethical principles related to sustainability [35], and the transparency of the indicators used in this study at both quantitative and qualitative levels identifies the symbiosis between the ODS and the University according to Albareda-Tiana, Vidal-Ramentol, Pujol-Valls, and Fernández-Morilla [36]. This study is important for justifying the public resources used by the University, in addition to improving the internal management of the institution and its relationship with stakeholders. In addition, there are not many studies of this type in the academic literature referring to concerted universities; thus, it is a relevant issue, as evidenced by the Catalan Association of Public Universities (ACUP), to advance transparency and social accountability.

3. Relationship between Social Value and the UVic-UCC Brand

Financial information is no longer enough in terms of dialogue with stakeholders in organizations; more information is needed than purely financial information, such as the impact of the organization on the environment, social information, and governance principles—that is, the environmental, social, and governance (ESG) factors of the organization, which must be properly communicated. Large companies must communicate this information by legal imperative according to the European Directive transposed into the different legal systems of European countries (in Spain through the Non-Financial Information Law published in 2018), but soon, small- and medium-sized companies will also have to provide this information, as well as universities and other non-commercial entities [37]. Thus, research of the social value of universities is moving in this direction and, in the case of the UVic-UCC in this study, details the process to be followed, in line with the report "The social value of public universities: A quantitative and qualitative approach" presented in December 2020 by the Catalan Association of Public Universities (ACUP) with the support of the Secretariat of Universities and Research of the Generalitat de Catalunya, in order to assess the impact of the activity of universities and their social commitment with a desire for transparency and accountability. This objective justifies this research and highlights that public and private universities must communicate their social value with systematic information, accessible and understandable to society as a whole, complementing the information on the socioeconomic impacts of universities.

The methodology for analyzing the integrated social value set out in this paper explored the UVic-UCC's social commitment to relevant institutional positions, programs, and initiatives made by the University: information that had not previously been measured and was measured with the methodology presented in this work.

To develop the work presented in this paper, the participation of people from the University community formed a key element in the brand building of the University included in the relevant region according to San Eugenio, Ginesta, Compte-Pujol, and Frigola-Reig [7]; this is a university with a desire for the sustainable governance [3] of a region with a local brand of a human dimension [8]. This study highlighted that stakeholder participation processes were a key element in building territorial brands, identifying a relationship between the brand, and the sustainable development of the University [7]. Ginesta, San-Eugenio, Corral-Marfil, and Montaña [8] also pointed out that the governance of an organization and its social accounting help to identify the brand of the region.

Thus, the methodology used required the participation of stakeholders from the university community, which integrated the branding of the institution by involving public and private actors and internal and external audiences with a sense of belonging and community [7,8]. It must be kept in mind that branding is the meeting point of the interests of the market, the administration, and the people as the backbone of the economic, social,

and governance promotion of an institution [8], consistent with the social value of the University, the object of this study.

An important part of this study used qualitative methodology through 50 interviews with interest groups (associations, municipalities, institutes, Public Administration, students and families, teaching and research staff, administration and service personnel, institutions, companies, and society in general) that helped to determine the social value of the University.

4. Overview of the University of Vic-Central University of Catalonia

The University of Vic-Central University of Catalonia (Uvic-UCC) was created on 21 May 1997 to establish a reference university for Central Catalonia and to thus recover, 280 years later, the last of the universities suppressed by Felipe V. This university arose from the continuation of the University Studies of Vic (EUV), which was assigned to the University of Barcelona (UB), the Autonomous University of Barcelona (UAB), and the Polytechnic University of Catalonia (UPC) in a process initiated in 1977 with the affiliation of the Jaume Balmes School of Teachers. The University of Vic-Central University of Catalonia continues a tradition of higher education that dates back to the Middle Ages. It combines public and private management and carries out its public service activity in the fields of teaching, research, and knowledge transfer in the biosciences, communication, education, business, engineering, sport, languages and translation, health, and design.

As an institution, the UVic-UCC and the people who work there aim to achieve excellent teaching, research, and knowledge transfer to stimulate individual human and social ideals of higher education. The University focuses on the human dimension (direct contact and proximity to students), innovation, creativity, entrepreneurship, and internationalization, along with environmental needs, undertaken with professional rigor and social commitment. In the 2017–2018 academic year, the UVic-UCC had 6732 students, with a teaching and research staff of approximately 1000 people and 361 people in administration and services.

To carry out teaching activities, the university is organized into seven faculties: the Faculty of Education, Translation, and Human Sciences; the Faculty of Business and Communication; the Faculty of Health and Welfare Sciences; the Faculty of Sciences and Technology; the Faculty of Health Sciences of Manresa (a federated center); the Faculty of Social Sciences of Manresa (a federated center); and the Faculty of Medicine (a federated center). It has a doctoral school, the Center for Innovation and Training in Education (CIFE), the International Center for Continuing Education, the School of Languages, and the Summer University. It also has three affiliated centers: the University Center for Design (BAU), the School of Senior Management and Administration (EADA), and the Barcelona School of Business and Social Science (ESERP).

5. Methodology

The impact that universities have on society can be seen in numerous ways, and it is generally accepted that universities generate social value [6,9]. There are two main types of studies on universities' value: those that focus on knowledge and those that focus on spending [6,9,10].

The integrated social value (ISV) methodology of Retolaza, Ruiz-Roqueñi, San-Jose, and Barrutia [1] was used, with a qualitative (stakeholder interviews to identify value variables) and quantitative (value variables, indicators, proxies, algorithms, and social value-specific variables) analysis to determine the social value perceived by stakeholders [38]. The methodology was based on the ontological perspective of stakeholder theory [26,39]. The polyhedral model (with the SPOLY process) and the theory of fuzzy sets were applied in four phases: the identification of stakeholders, the identification of value variables, the monetization of the indicators (accounting fair value), and the calculation of the integrated social value (Table 1).

Table 1. Phases to quantify the integrated social value of the UVic-UCC.

PHASE 1	Identification of stakeholders (map stakeholders)
PHASE 2	Identification of value variables (stakeholder interviews, value variables, and interest matrix)
PHASE 3	Monetization of indicators (social outputs, proxies, and algorithms)
PHASE 4	Calculation of the value generated (consolidated value)

Once the map of the University's stakeholders had been drawn up, the UVic-UCC's interest groups were identified: society, public authorities, students and families, alumni, teaching and research staff, administration and services staff, institutions and companies, and the social environment.

To identify the value variables, 50 interviews were conducted with stakeholder representatives, according to the phenomenological method developed by Englander [38], to identify the value perception of the UVic-UCC. The 26 value variables that were identified were used to classify the values into seven categories (Table 2).

Table 2. Categories and value variables identified by the UVic-UCC's stakeholders.

Category	Value Variables
1. Training of qualified professionals	1.1. Academic training of students 1.2. Support for students with specific needs 1.3. Discounts for academic training 1.4. Employability 1.5. Job search support 1.6. Formation of specific groups
2. Training of committed citizens	2.1. Talent interconnection (networking) 2.2. Support for international student training 2.3. Activities of cultural and general interest for the university community 2.4. Services of cultural and general interest open to the public
3. Research	3.1. Generation of knowledge 3.2. Teaching, research and administration support services, and other services
4. Knowledge transfer	4.1. Collaboration in research projects 4.2. Innovation and development 4.3. Free transfer agreements by the company or entity 4.4. Support and help for entrepreneurship 4.5. Access to industrial doctorates 4.6. Evidence of the impact of the research
5. Benefits for the university community	5.1. Social benefits for staff 5.2. Aid for international mobility programs 5.3. Aid to the community for the practice of sport
6. Support for the progress of society	6.1. Science and Society program, educational robotics, workshops, "Ready, Ready, University" for high school students 6.2. Interns who are then hired 6.3. Assignment of spaces
7. Urban impact and revitalization of the region	7.1. Commercial revitalization of the environment and rental of flats 7.2. Preservation of the city's listed heritage

Then, using fuzzy logic, indicators of the value variables were identified using proxies and algorithms that allowed for their monetization. In other words, outputs were monetized with proxies in a process similar to that used in accounting to find the fair value recognized in the current general accounting plan.

Finally, the joint value of the monetized outputs was used to determine the specific social value. Together with the economic social value, and after duplications had been deducted and the corresponding consolidation had been undertaken, this value produced the integrated or consolidated social value of the UVic-UCC for the 2017–2018 academic year, which was the object of our study.

The methodology included an analytical part in four phases. The first, once the research team had been formed, determined the schedule to follow and consolidated the methodology to be used. The second identified the target stakeholders. The third, from a phenomenological perspective, allowed the creation of a matrix of value variables that were identified by stakeholders in validated interviews. Finally, the fourth used blurred logic with indicators, proxies, and algorithms to provide the monetization of outputs with a value similar to the fair value. The consolidated social value or integrated social value was then synthesized as the sum of the social value generated by economic activity (direct and indirect, with a return value to the public authorities) and the specific social value generated by the stakeholders, once duplications between the two values had been deducted.

The types of social value identified and monetized in the UVic-UCC study in the 2017–2018 academic year were the following:

- Social value generated by economic activity (monetization of the impact of the UVic-UCC's economic activity in the 2017–2018 academic year).
- Socioeconomic return to public authorities (monetization of what the UVic-UCC returned to the public authorities during the 2017–2018 academic year).
- Specific social value (monetization of the matrix of value variables of the stakeholders with the corresponding indicators, proxies, and algorithms).
- Integrated social value or consolidated social value (social value generated by economic activity plus the specific social value minus duplications between these two values).

6. Results

The interest groups identified and monetized in the study were society (EUR 44,670,056); public authorities (EUR 17,146,747); students and families (EUR 45,711,167); alumni (EUR 805,356); teaching and research staff (PDI); administration and service staff (PAS) (EUR 4,200,964); institutions and companies (EUR 12,128,430); and the social environment (EUR 13,922,447).

The main stakeholders of the UVic-UCC identified different perspectives of creating social value, achieved through interviews with representatives of stakeholders to determine in which aspects the institution added value to the activities that were undertaken. The interviews followed the phenomenological method to identify value variables that were subsequently monetized with indicators and proxies. The interest matrix reflected the interests identified by each stakeholder (society, administration, students and families, alumni, university staff, institutions and companies, and social environment). In the case of the UVic-UCC, the interest group with the highest amount was that of students and families; the students were those undertaking undergraduate, postgraduate (master's), and doctoral degrees at the UVic-UCC, and the families were those bearing the costs of university studies.

Students and their families, as stakeholders with similar interests, had a value of EUR 45,711,167. To obtain this value and to provide a visible example of monetization, the calculations were as follows. The monetized value variables of the different categories (1, 2, 3, and 5) were identified. In category 1 (the training of qualified professionals), the value variables were student academic training, support for students with specific needs, and employability and job search support, totaling EUR 35,120,240. In category 2 (the training of committed citizens), the value variables were talent interconnection, support for international student training, and cultural and general interest activities for the university community, totaling EUR 37,971. In category 3 (research), the value variables were the support services for teaching and research, amounting to EUR 3,198,006, and in category 5

(benefits for the university community), the value variables were discounts on services and products and aid for the practice of sport, amounting to EUR 167,706. The overall total was EUR 38,523,923. This amount was then added to 20% of the value variables of the students' families to weight the duplications, reaching EUR 45,711,167.

The social value generated by the economic activity (EUR 44,670,056, VES) was the sum of the impact of the economic activity that was generated in the region directly (value for society, including value of wages, social security, income tax, other taxes, income, depreciation and amortization, and financial expenses of the audited financial accounting, which amounted to EUR 37,343,340) and that which was generated indirectly with the operating suppliers that collaborate with the University (EUR 6,466,369, VES-IP) and investment providers (EUR 860,347, VES-IP Inv).

The value of socioeconomic returns to public authorities (EUR 17,146,747, R-VES) was calculated directly with returns made by the company to public authorities (EUR 13,835,134, R-VES) and indirectly with returns to public authorities of operating suppliers (EUR 2,859,232, R-VES-IP) and investment suppliers (EUR 452,381, R-VES-IP Inv).

The specific social value generated by stakeholders (EUR 51,700,259 (VASE)) was the value that the institution distributed to the interest groups. This encompasses all of the identified value variables monetized through the indicators, proxies, and algorithms (qualified professional training, 69%; training committed citizens, 0.2%; research, 15%; knowledge transfer, 2%; community benefits, 0.6%; support for the progress of society, 0.2%; urban impact and revitalization of the region, 13%).

Finally, the consolidated share value of EUR 64,268,260 was the joint value, without doubling the value shared between stakeholders and the share value generated by economic activity, as shown in Table 3.

Table 3. Detail of the social value of the UVic-UCC.

Direct impact (economic activity of the University)	EUR 37,343,340	VES EUR 44,670,056
Indirect impact (operating suppliers)	EUR 6,466,369	
Indirect impact (investment suppliers)	EUR 860,347	Return to public authorities EUR 17,146,747
Specific social value (matrix)	EUR 51,700,259	VASE
Duplicate value in VES and VASE	(EUR 32,102,055)	
Gross integrated social value	EUR 64.268.260	Consolidated social value
Public funding	EUR 6,755,910	
Net integrated social value	EUR 57, 512,350	

In summary, the social value generated by economic activity (direct and indirect), i.e., VES EUR 44,670,056 (with a return value to the public authorities of R-VES EUR 17,176,747), plus the specific social value generated by the stakeholders, i.e., VASE EUR 51,700,259, make up the consolidated or integrated social value (ISV) of EUR 64,268,260 after deducting the duplications between VES and VASE (EUR 32,102,055).

This integrated shareholder value of EUR 64,268,260 represents 9.5 times the grants received (64,268,260/6,755,910 = 9.51) and 3.3 times the institution's own funds (64,268,260/19,641,033 = 3.27), which indicates good social and economic management.

The most significant value variables of specific social value of the monetized stakeholder matrix (VASE EUR 51,700,259; the global matrix includes seven categories with 26 value variables and 59 indicators and proxies for the monetization of the matrix), shaded in Table 4, were the training of qualified professionals, research, and the urban impact and revitalization of the region.

Table 4. Monetization of the matrix value categories.

Categories of Value Variables	Monetization	
Qualified professional training	35,820,574.72	69%
Training committed citizens	106,387.11	0.2%
Research	7,471,014.36	15%
Knowledge transfer	1,223,963.72	2%
Benefits to the community	281,025.36	0.6%
Support for the progress of society	96,162.60	0.2%
Urban impact and revitalization of the region	6,701,130.68	13%
Total	51,700,258.55	100%

To understand the monetization of the matrix, Table 5 lists the most relevant indicators for each shaded value variable and describes the proxies and algorithms used for each of these indicators.

Table 5. Value variables and indicators of the highlighted categories.

Featured Categories	Value Variable	Indicator
Training of qualified professionals	Academic training of students	Credits passed by undergraduate and master's degree students
		Enrolled doctoral students
	Support for students with specific needs	Hours dedicated to students with special educational needs
		Hours dedicated to high-level sports students
	Discounts for academic training	The UVic-UCC's own scholarships
		Discounts for teachers and administration and service staff
	Employability	Bachelor's and master's degrees
		Doctoral degree holders
	Job search support	Hours dedicated to users who have received professional guidance
		Participants in professional skills development activities
		Hours dedicated to graduates in the job search improvement program
	Formation of specific groups	Credits enrolled by the UVic-UCC's senior students
		Students enrolled in the Junior Campus Program
Research	Knowledge generation	Amount of competitive financing
		Indexed articles Web of Science, Scopus, and ESCI
		Impacts or mentions in the written press
		Impacts on online press
		Contributions of professors in the written press
	Teaching and research support services and administration and services staff	Participants in initial teacher training
		Advice for professors through the teaching support unit
		Hours of attendance at continuing education courses, teachers and administration and service staff
		Library users
		Number of coworking space reservations
Urban impact and revitalization of the region	Commercial revitalization of the environment and rental of flats	Nine undergraduate students who spend the night on the campus during their studies (20% of the total)
	Preservation of the city's listed heritage	Investment in Can Baumann
		Investment in Casa Convalescència

In the category of training of qualified professionals, out of the six monetized value variables, the one that stands out refers to the academic training of students with the indicator of the number of credits passed by students of bachelor's and master's degrees and the proxy of cost of the UVic-UCC credit for bachelor's and master's degrees. To better understand the indicators and proxies of the value variables, an example of the value variable of academic training of students was provided. The two indicators for this variable were the number of credits passed per bachelor's and master's degree and the number of doctoral students enrolled. The two respective proxies were the cost of the UVic-UCC credit for bachelor's and master's degrees, totaling EUR 90.66 (average price between the different degrees; source: UVic-UCC), and the price of doctoral tutoring at a private university, totaling EUR 968 (average annual tutoring prices at private universities; source: Ayuso [6]).

Regarding the research category of the two value variables, the support services in teaching and research with the library user indicator and the proxy of the contingent monetary valuation of the economic and social value of the services stand out in the monetization of library information (FESABID).

Regarding the category of the urban impact and revitalization of the region, of the two value variables commercial revitalization and the rent of flats stand out with the indicator of the number of students who spend the night in the region (20% of the total) and the proxy of 1% of household consumption during nine months of the academic year.

7. Discussion

The Social Economic Value (VES) of EUR 37,343,340 generated by the economic activity of the institution also includes the return to the Public Administration of EUR 13,835,134 (R-VES). Specifically, the direct social economic value of EUR 37,343,340 was the sum of the economic value distributed to employees (net wages of EUR 20,802,120); to Public Administrations (Social Security contributions of EUR 8,656,447, withholding of personal income tax of EUR 5,126,410 (value-added tax is not considered as it is a teaching activity), and other taxes totaling EUR 52,277 for a total of EUR 13,835,134); and to financial providers (financial expenses of EUR 217,473), together with the result of EUR 224,407 and economic amortizations of EUR 2,264,206.

Regarding the indirect economic social value of the suppliers, a difference was found between operating and investment suppliers; for this purpose, by having the tax identification number of the institution's suppliers and by using the SABI database, their accounting documents were consulted, and the impact indices (on billing) were obtained as proxies to estimate the value distribution of the suppliers.

In the case of purchases from operating suppliers, the indirectly generated social value was the sum of added value (supplier impact index) and the value-added tax of a total of EUR 6,466,369 with a return to the Public Administrations of EUR 2,859,232 R-VES-IP (sum of Social Security, personal income tax withholdings, value-added tax, and other taxes).

In the case of investment providers, the indirectly generated social value was the sum between the value added and the value-added tax of a total of EUR 860,347 with a return to Public Administrations of EUR 452,381 R-VES-IP.I (sum of Social Security, personal income tax withholdings, value-added tax, and other taxes).

The direct impact of economic activity plus the indirect impact of operating and investment providers amounted to EUR 44,670,056 (VES), and the corresponding return to Public Administrations was EUR 17,146,747 (EUR 13,835,134 (R-VES) + EUR 2,859,232 (R-VES-IP) + EUR 452,381 (R-VES-IP. I)). Later, we added to the EUR 44,670,056 (VES) the specific social value of EUR 51,700,259 (VASE) of the monetized matrix of the identified value variables, and we deducted the duplications between VES and VASE to present the integrated social value of the University in the analyzed academic year, which totaled EUR 64,268,260, greatly exceeding the public subsidies received and justifying good economic and social management as demanded by our society with due transparency for stakeholders.

8. Conclusions

This research answered the two research questions raised:

RQ1: How is the social value of the UVic-UCC monetized in an academic year?
RQ2: Once monetized, what is the result of the monetized social value?

Specifically, the monetization of the social value of the UVic-UCC in the academic year 2017–2018 was EUR 64,268,260; this is the consolidated or integrated social value of the UVic-UCC of the 2017–2018 academic year, which includes the economic and non-economic value of the institution in an integrated way, using participatory research between the University and the interest groups (society, public administrations, students and families, alumni, teaching and research staff, administration and services staff, suppliers, institutions, companies, and social environment).

To arrive at the monetization of the social value of the Uvic-UCC in the course of the 2017–2018 academic year, it was necessary to calculate the social value generated by the economic activity (totaling 44,670,056 EUR according to indicators of the audited financial accounting) and the return made to the Public Administration of EUR 17,146,747 (approximately 27%), and then to add the specific social value of EUR 51,700,259 to reach the integrated social value of EUR 64,268,260, deducting the duplications of the two values (EUR 32,102,055).

These results have several implications, and the result of the monetized social value (in response to the second research question) indicated the good use of the grants received by the University, with the return to society being 9.5 times the amount received from public funding. The return to public authorities was more than double the subsidies received. The social value was 3.3 times the University's own funds and 1.3 times the income. In addition, the specific social value of EUR 51,700,259 exceeded the social value generated by the economic activity of EUR 44,670,056, so the social value of the UVic-UCC for the academic year 2017–2018 demonstrated good economic and social management of the institution.

It should be kept in mind that measuring and monetizing the social value of the UVic-UCC in Euros makes the value created by the institution for stakeholders more perceptible and understandable and, with the performance of social accounting in different periods, allows one to assess the tendency of the institution to create social value. Simultaneously, it also provided evidence that allowed the University to demonstrate that the funds from the government were well managed.

This study identified the value that the UVic-UCC generated in society and determined how stakeholders view the UVic-UCC, in line with studies from other universities. Notably, the analysis of social value is not mandatory, but it is advisable for higher education institutions to integrate social value analysis into their accounting, as other institutions do [27]. As stated by researchers in the field, indicators of studies of this type could be extended to higher education to facilitate the evaluation and control of the social efficiency of universities [11]. These studies raise awareness among the general public of the importance of universities for the development of the region and the transparency of the institution.

The monetization and integration of market value with non-market value renders it easier to understand the impact of an institution, in line with the principles of sustainability of universities [30] for continuous improvement of said institution.

It should be considered that social accounting is poorly standardized according to Hendriksen, Weimer, and McKenzie [40], and this study had limitations resulting from this weak standardization. The other limitations of this study were the poor monetization of the environmental effect and emotional value. In future research, the environmental variables will be considered in more depth due to their importance [41], and the emotional value will be monetized following the approach of academic publications in the field [27].

Social value as a guarantee of the economic and social management of the University and of the use and management of subsidies provided by public authorities improves the internal management and communication with stakeholders. It also increases the trans-

parency of a higher education organization, despite the lack of currently internationally recognized standards for this type of assessment.

The usefulness of this research lies in justifying the public resources used by the University; thus, the integrated social value is a guarantee for public subsidies. Specifically, the University under study receives a government program contract, and the use of the subsidy must be justified in detail, endorsing its correct use and its return to society. The monetized integrated social value was 9.5 times the subsidies received; thus, its use is fully justified. On the contrary, with the integrated social value, the internal management of the institution was evidenced in detail, being more susceptible to continuous improvement, and by monetizing the integrated social value, improvement actions can be undertaken. This would improve the relationship with the interest groups and, with the 50 surveys carried out, it was possible to perceive how the stakeholders value the institution. Thus, the integrated social value justifies the subsidies received and shows good economic and social management.

This study is replicable for studies of other national and foreign universities; specifically, a study of the integrated social value was carried out in eight Catalan public universities and has been presented recently (December 2020). On the contrary, other public and private institutions would benefit from calculating the integrated social value, such as hospitals, third sector companies, and commercial companies, as detailed in the literature review. Finally, as an aspect for improvement of this study, we did not monetize the sustainability variables (such as water, energy, or waste); thus, it is necessary that these value variables are incorporated in future studies.

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