

# The Impact of the Transparency Policy on University Students' Trust and Intention of Continued Use

Ramón Rufin Moreno  
UNED  
rrufin@cee.uned.es

Cayetano Medina Molina  
CEADE  
[cmedina@ceade.es](mailto:cmedina@ceade.es)

## Abstract

*The loss of trust suffered by public institutions means that they are trying to identify the existing formulae so that this can be restored, and this includes transparency. In universities, certain changes in their situation (lower funding, higher competition and pressure on stakeholders) mean that the demand for transparency policies is even greater. Although the literature initially states that the transparency generated by the spread of online information is a suitable formula for increasing citizens' trust in the public institutions, recent papers question the validity of this relationship. This paper analyses the effectiveness of the transparency strategy carried out by the Spanish Open University UNED (Universidad Nacional de Educación a Distancia) in terms of the impact on students' trust and, what is most important, on their intention of continuing to use its services.*

## 1. Introduction

Since the issue was raised that citizens have lost their faith in the Public Institutions' actions, this has been dealt with repeatedly in the literature, to the point that it has been stated that restoring citizens' trust in the Public Sector is a key element in its reform and modernisation process [1], and may even determine its survival [2].

One of the formulae identified for increasing trust is to apply new governmental styles that focus on involving citizens [3] [4] [5], but they may be limited if their design does not include appropriate dialogue and transparency with the stakeholders [6] [7].

The university sector is not oblivious to this process, especially since the Bologna Declaration. As a result of the increase in competition among universities to recruit students, the new funding dynamics, the

establishment of legal requirements and the introduction of new demands and aspirations from the stakeholders related to a more detailed accountability, there is a demand for an in-depth reform and modernisation process of the university system in relation to the presentation of information that takes into account the new demands from users. All of this means that the universities are involved in in-depth changes with the aim of increasing their effectiveness, efficiency and transparency. The universities are obligated to provide information, and they can improve their relations with users by revealing their services through the Internet [8] [9] [10] [11] [12].

Although it has been stated that the possibility of making transactions online will make the interactivity and transparency inherent to e-government affect citizens' satisfaction and trust [13] [3] [4] [5], perhaps the idea that the change associated with e-government will lead to an increase in citizen trust or that it will even bear relation to this is far-fetched [1] [14]. As a result of a lack of agreement between the various authors, it is necessary to have more knowledge about the transparency generating processes and their relationship with trust and with the variables related to it, such as the intention to continue using the university's services.

Specifically, in the case of the UNED, which is the biggest public-sector higher education institution in Spain, in terms of the number of students, geographical spread and relations with companies and institutions, we will analyse the impact of its transparency policy on the students' trust and, what is most important, on their intention of continuing to use its educational services. We must not forget two factors related to continuing to use the services: firstly, the universities face the challenge of reducing their dropout rates within their quality policies; and secondly, the universities are focusing on

offering postgraduate courses (Master's degrees) and throughout people's lives as a way of increasing their revenues by attracting new students but, above all, by gaining the loyalty of their degree students. If these products are promoted and marketed appropriately among the current students, this will be fundamental so that they will continue using the teaching services provided: firstly, by reducing the dropout rates of degree students; secondly, by improving the conversion rate of graduates to postgraduate students; and thirdly, by fostering a permanent relationship through continuing education throughout their lives.

## **2. Transparency, trust and continued use**

### **2.1. Transparency**

The models that explain the development of the e-government tend to include a number of phases where the last one is the transformation. This tends to be based on a group of desirable qualities rather than on specific changes in processes and structures; in this respect, it is stated that the government must be efficient, flexible, auditable and transparent [1]. Since the use of e-government has become widespread for disseminating information, transparency has been considered a legal right related to the request for specific documents that are not being offered online [15].

Transparency is defined as the level in which the information that is available for external persons enables them to be informed about the decision-making process and assess the decisions made [16] [17]. Understood as a process, it arises when the organisations foster visible decision-making, are open to the public's contributions, provide the public with maximum choice, and work in cooperation with other organisations with the aim of achieving greater benefit for the common good [18]. Defined from an overall standpoint, it refers to the degree in which the organisation reveals information about its internal work, decision processes, operating procedures and results. It refers to an organisation's active spread of information so that its internal processes or results can be monitored by external agents [19].

Access to the information of Public Institutions is currently unprecedented throughout the world and this is reflected in a global adoption of rules that implement this. This emphasis shows two trends: a

their own certificates for continuing education focus on government reforms that reinforce openness and transparency; and a growing availability and continuous development of the ICT which enables institutions, organisations and individuals to locate, share, combine and reuse the content of governmental information [20] [17]. Apart from meeting citizens' expectations on this matter, the use of the Internet to foster transparency is one way of accessing the Public Sector's information [15].

Some governments believe that using the ICT is a way of fostering efficiency and transparency at the same time [21], but the new initiatives related to Internet use to foster access to the Public Sector's information are determined by the users' search performance in the search engines [15]. Although it is suggested that having access to information on the website increases the perception of the Government's transparency [13], transparency is a more complex concept than simply disseminating the information online, where different tensions have arisen related to the use offered by the public institutions: citizens' comprehension and understanding; the usability, accessibility and usefulness of the information while protecting data confidentiality; the need to analyse the overall data distributed by different levels of government; and the fact that the information can be misinterpreted as a result of a lack of descriptive data or the need for having experts or qualitative skills [16] [20] [22].

### **2.2. Trust**

Trust is the belief that the other party will act, as expected, in a socially responsible way and will thus meet the expectations of the party who trusted; this reduces the social complex nature resulting from the independent agents whose behaviour cannot always be controlled or anticipated and which, therefore, reduces the risk and uncertainty involved in the interaction with them [23] [24]. Trust in the public institutions is the belief/faith that they will provide the results asked of them, even in the absence of constant auditing, i.e. that they will act efficiently [25]. This is a specific type of trust relationship where the institution is worthy of the trust and the citizen trusts the institution's rules, roles and regulations, regardless of the people who play those roles [26].

When we refer specifically to trust in the Government, this is defined as the perception about the integrity and ability of the agency to provide the

service [27]. Since it is a different concept to interpersonal trust, its antecedents will be different [1].

Trust in the e-government programme has two elements: trust in a specific institution (trust in the Government), and trust in the technology on which it depends and on which it is supported. Based on the two trust elements, adopting the e-government services will depend on the faith in the enabling technology and in the agency that provides the service [28] [4] [29]. Trust in the e-government is based on the belief that the electronic services are provided effectively and confidentially [29].

The e-government has been proposed as a way of increasing trust in the Government and improving citizens' assessment about the government in general, where there is a significant relationship between trust and use of the Institutions' websites [4] [13]. The e-government can improve citizens' trust based on this process by increasing the interaction with citizens and the perception of its feedback capacity [13]. As a feedback process, trust affects the adoption of information systems by creating positive attitudes [30].

### **2.3. Continued use**

The current information technology applications are transforming business processes and the way in which organisations and people operate. The complex nature and the costs associated with those systems increase the pressure on organisations to assess the success of their implementation [31]. Although the initial use is an important indicator of the success of implementation of an information system, this does not necessarily mean that the result is the one desired by the organisations unless their use continues [32]. That is why behaviour after the decision has been adopted about the possibility of whether or not to continue using certain services is of vital importance [33] [34].

Despite the importance of researching user behaviour after a purchase, this receives relatively low attention compared with the initial decision adopted. But the long-term viability and success of the technological firms are based on the continued use of the new technology, rather than on the first decision adopted, making the study of the factors that influence this more relevant [33] [35] [36].

The continued use is not a new concept in the research of information systems; it has had different names, such as "implementation", "incorporation" and "routinisation". Such studies acknowledge the

existence of a phase after acceptance when IS use transcends conscious behaviour and becomes part of our normal routine activities [37].

### **3. The impact of transparency on trust and continued use**

Transparency and the right to access public information are currently demanded in order to foster participation and trust in the Administration [3]. As a result of less trust in the Public Institutions, which has been a cause for concern throughout time, transparency has been proposed as the panacea for better governance, in general, in order to combat the decline in trust [38] [13] [39] [40]. In theory, implementing the e-government applications has the potential to determine many major changes (efficiency, effectiveness, connectivity and transparency) which provide numerous formulae to increase citizens' trust in the institutions, since the idea is that a more open and transparent government, with a more efficient service provision, can restore their faith in it [38] [26].

Two formulae were identified for generating significant trust in the e-government: process-based trust (experience) and institution-based trust [1] [41]. The former arises from the repeated exchanges or interaction with the government and is generated if the government is perceived as having a feedback capacity and being accessible. The latter is a judgement about the institution, rather than the interaction itself, and implies that it will do the correct thing. This will be generated if the government is perceived as responsible and transparent. Transparency is achieved by providing information, which makes the institution auditable, thus increasing citizens' trust [13].

In line with the latter, transparency, which favours auditing, is fundamental for restoring trust in the Public Institutions and maintaining "healthy" relations with the stakeholders [16] [42] [6]. As more information appears on the institutions' websites, trust in their managers tends to increase since it is believed that transparency improves trust significantly [43] [13]. Although transparency is a generally accepted objective and is fundamental for auditing agreements, when it is associated with government services, it may not generate trust. It has been verified that the perceived transparency through the website is not significantly related to the institution [13], and that the persons exposed to a greater volume of information from the public institutions have a more negative perception of the Institution's competence [19]. Therefore, it has been suggested that

transparency will probably shape the perceptions through indirect sources, but will not have such a clear effect on citizens' day-to-day activities [26].

On the other hand, when there is high level of trust in the government, the increase in transparency could effectively reduce this trust [44]. In another case, it is stated that the effect of transparency is in the relationship among the public's expectations about reality [19]. The attitude towards IS is related to the intention of continued use [30]. Greater transparency will probably be more beneficial when there the trust level is lower. To clarify the relationship between transparency, trust and the intention of continued use, the following assumptions were established:

H<sub>1</sub>: Transparency is significantly related to generating trust.

H<sub>2</sub>: Transparency is significantly related to the intention of continued use.

A positive disconfirmation of trust increases the perceptions after the purchase. Based on previous work, we can establish that the trust after use will have a positive influence on the intention of continued use [4] [30] [45], where we establish the following assumptions:

H<sub>3</sub>: Trust is significantly related to continued use.

#### 4. The UNED's transparency strategy

The UNED is a public-sector university which provides solely university level education to Spanish citizens or residents under the blended learning method since 1972. Physically, it has centres and libraries throughout Spain to help tutor students who wish to have a strong component of onsite education, as well as a dozen schools in Europe, the Americas and Africa.

The UNED provides Bachelor Degrees and Master's Degrees in the various fields of experimental sciences, social sciences and engineering. It also has a programme of over 500 "university-specific degrees" which make up the "Continuing Education", with the aim of meeting the goals of the European Union's Bologna Plan in relation to the ongoing education of people throughout their lives.

Finally, the UNED, as many other universities around the world, has been providing free MOOCs (Massive Online Open Courses) in the last two years, in collaboration with technology companies such as Telefónica and with other universities such as MIT under the UnX platform. Since the students taking the latter courses have barely had a long relationship with

the institution, we have not envisaged them in this research.

Although the university sector in Spain has always been characterised by very intense competition, the open university system has increased considerably in the last few years. Until a few years ago, the UNED only competed with Universidad Oberta de Catalunya (UOC); in recent years, up to four more universities have been set up: Universidad a Distancia de Madrid (UDIMA) in 2006; Universidad Internacional de la Rioja (UNIR) in 2008; Universidad Internacional de Valencia (VIU) in 2008; and Universidad Internacional Isabel I de Castilla in 2011.

**Table 1. Student numbers at the Open Universities**

	Bachelor Degrees				
	06/07	07/08	08/09	09/10	10/11
UNED	140,529	142,172	144,334	144,408	166,420
OBERTA	38,857	40,264	41,763	44,267	44,192
UNIR	-	-	-	1,616	2,636
UDIMA	-	-	422	869	1,409
	Master's Degree (Postgraduate)				
	06/07	07/08	08/09	09/10	10/11
UNED	117	655	1,742	3,662	5,138
OBERTA	556	958	1,486	2,345	2,906
UNIR	-	-	-	605	2,906
UDIMA	-	-	-	257	1,179

As can be seen in the table above, the UNED has clearly had more Bachelor Degree students over time, whereas the recently-created universities are attracting a large share of Master's Degree (postgraduate) students. Therefore, the UNED had to react, among other ways, by carrying out an effective transparency strategy, which is essential in a university community with so many students and stakeholders.

The UNED's transparency policy is focused on two main lines: providing information by making its internal processes public, and fostering the supply of information to its stakeholders.

Within the first line, and aware of the need to respond to the current demand for transparency, the UNED developed the "UNED e-Government" project, to which it devotes a large area on its website [www.uned.es](http://www.uned.es), which shows the Regulatory Projects (those already drafted and those in the drafting and public discussion process) and the agreements signed by the UNED with hundreds of companies and external institutions, as well as the full information about the university's economic aspects.

Within its second policy line, and in compliance with Spanish Act 11/2007 of 22 June, the UNED manages the "Electronic Office. The UNED's Social and Transparency Commitment", whose operating

principles, in accordance with the agreement adopted on 7 May 2012 by the UNED's Governing Board, are the "official advertising, responsibility, quality, security, availability, accessibility, neutrality and interoperability". The UNED also makes intensive use of the social media and networks as a way of increasing transparency.

**Table 2. Use of social media by the Open Universities**

	UNED	UOC	UNIR	UDIMA
Facebook I Like	46,552	17,027	7,107	5,235
Twitter: Follow	39,541	13,394	4,094	3,073
Tweets	4,944	1,888	5,543	2,132
YouTube: vid.	591	2,306	1,432,467	135
subscrip.	6,129	2,617		484
reprod	2,255,015	1,308,047		262,751
Linkedin	Yes	Yes	Yes	Yes

Precisely, in line with this second line of its Social Transparency and Commitment policy, on 22 April 2013 it presented a report from independent external experts, "The UNED's economic and social contribution", which was aimed at estimating and quantifying in a systematic way the economic and social impacts of the UNED's activities on the Spanish economy and society. The UNED is a public-sector university which, by presenting this study, shows its commitment, from transparency and efficiency to the economic and social wellbeing in Spain. It also provides accountability to the public administration, the households and the companies that give it the financial resources necessary for its operations [46]. The main results of the report, within the economic and social context of this paper, are as follows:

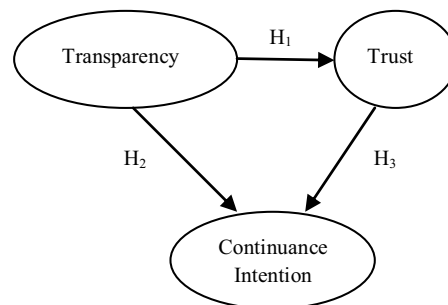
- The UNED's total economic impact on the Spanish economy is between 1.522 and 2.016 billion euros per year on production, between 673.4 and 803.9 million euros on income and between 16,257 and 21,069 jobs.
- The expenses executed by the UNED in R&D since 2003 generated a technological capital in 2011 worth 162.5 million euros in the Spanish economy.
- The human capital generated by the UNED since 1993, calculated in 2011 as the higher present value of the future employment income of the university graduates throughout their lives, amounts to 3 billion euros. According to the various scenarios, this total value is between 2.65 and 3.616 billion euros.

- The UNED indirectly contributes to the increase in personal income tax and VAT revenues, estimated at 521.3 million euros per year in 2011, which is 251% higher than the contribution from the public administration to the UNED's budget. It also increases the social security revenues through the contributions of its graduates, which amounted to 64.4 million euros in 2011.
- The UNED gives back to Spanish society six euros for every one euro that the public administration provided in its 2011 budget.
- The rate of the tax return obtained by the public administration for investing in the UNED is high. Considering the public expenditure on higher education and the additional tax revenues, the public administration obtains, with a 95% probability, an average return of between 15.1% and 21.3% in the case of graduates and between 13.2% and 19.5% in the case of the UNED students.

In short, the UNED is developing an active transparency policy in terms of both providing information to society and its stakeholders through the Electronic Office and Social Media as well as opening up its internal operating processes and facilitating the audit process to which it is legally obligated.

## 5. Methodology

### 5.1. Field work



**Figure 1. Model tested**

To carry out the transparency survey among the degree, postgraduate and continuing education students of the UNED, we sent out a mass mail shot to the three groups of students, including a summarised explanation and as neutral as possible of the purpose of the research, as well as a link to the website where the questionnaire was located. The

data were captured between 20 and 26 May 2013 and 4,922 answers were obtained, of which 4,918 were valid.

Of the 4,918 individuals surveyed, 420 stated that they knew about the UNED's transparency programme, while 4,498 did not. Likewise, 291 stated that they had accessed the transparency programme's resources, while 4,627 had not.

The constructs of trust and intention of continued use were measured using three items in accordance with Venkatesh et al. (2011), while transparency was measured using the five items suggested by Park and Blenkinsopp (2011). All of them were measured using the seven-point Likert scales. As can be seen in Figure 1, the model shows that transparency is related directly to trust and the intention of continued use; these two variables do so between them while trust can act as a mediating element in the relationship between transparency and the intention of continued use.

The statistical behaviour of the constructs included in the model was analysed by developing the Structural Equations Model (SEM) with SmartPLS 2.0.M3. The purpose of PLS modeling is to predict dependent variables. This aim leads to an attempt to maximize explained variance ( $R^2$ ) of the dependent variables. Compared to covariance-based methods, PLS adapts better to prediction and theory development applications, although it can also be used for theory confirmation.

## 5.2. Descriptive analysis

Table 3. Descriptive analysis				
Item	Average	Standard deviation	Median	Mode
Transp1	4.6027	1.5559	5	4
Transp2	4.8581	1.5862	5	6
Transp3	4.8139	1.6370	5	6
Transp4	4.6354	1.5799	5	5
Transp5	4.8542	1.7035	5	6
Trust 1	4.4268	1.4798	5	4
Trust 2	4.2017	1.5873	4	4
Trust 3	4.5848	1.5506	5	5
CI1	5.1612	1.5876	5	6
CI2	5.1643	1.6037	5	6
CI3	5.1694	1.6012	6	6

If we study the items included in the questionnaire, we can see that the best results (an average of five and a mode of six) are shown in the following items: "The implementation process of the UNED's studies/courses is broken down in a transparent way", "Students can clearly see the process and development of the UNED's studies/courses" and "The UNED provides sufficient information to students about its

studies/courses"; and the worst results were in the following item: "Carries out its activity in a transparent way". With respect to trust, the best results were in the question on "ability to play the supplier role"; and with regard to the three items on intention, the main feature was that those surveyed stated that they will "try", "plan" or "continue" to use the UNED's services. The average value of all the items was more than 4, and in some cases the mode had a value of 5 and 6.

## 5.3. Measurement model

Table 4. Measurement model				
Construct	Item	Original Sample	Standard Error	T Statistics
Trust	Trust 1	0.9161	0.0032	289.6412
	Trust 2	0.9296	0.0026	364.1065
	Trust 3	0.9358	0.0023	415.6987
Continuance Intention	CI1	0.9671	0.0016	624.1002
	CI2	0.9814	0.0009	1088.6607
	CI3	0.9769	0.0014	683.3881
Transparency	Transp1	0.8863	0.0038	233.2241
	Transp2	0.9242	0.0029	321.7707
	Transp3	0.9216	0.0029	314.6680
	Transp4	0.9320	0.0026	352.5089
	Transp5	0.8774	0.0040	217.9604

Since all the items used to measure the constructs obtained a value of over 0.707, none of them had to be eliminated. Likewise, they all exceeded the level of minimum significance, as can be seen in the table.

## 5.4. Convergent validity

Table 5. Convergent validity			
	Trust	Continuance Intention	Transparency
AVE	0.8597	0.9509	0.8255
Composite Reliability	0.9484	0.9831	0.9594
R Square	0.6562	0.5888	-
Cronbachs Alpha	0.9184	0.9742	0.947
Communality	0.8597	0.9509	0.8255
Redundancy	0.5636	0.5119	-

Convergent validity is established by average variance extracted (AVE). It has been suggested that AVE values should exceed 0.5. This is the case here (Table 5), so the convergent validity of the related constructs can be accepted within the structural model. [47] recommend a value for  $R^2$  greater than 0.10, while [48] regards the values 0.67, 0.33 and 0.19 as substantial, moderate and weak, respectively. As can be seen, the three constructs amply exceed the AVE condition, with a valuation close to substantial trust and an average in the continued use.

## 5.5. Discriminant validity

Table 6. Discriminant validity (I)			
	Trust	Continuance Intention	Transparency
Trust	0,9272	-	-
Continuance Intention	0,7559	0,9752	-
Transparency	0,8101	0,6895	0,9085

To establish the discriminant validity, the AVE value must be higher than the variance shared by the construct and the other represented constructs, and that condition was met in our study. For ease of comparison, each element of the main diagonal (square root of the AVE) must be greater than the remaining elements within its corresponding row and column – correlations among constructs.

Table 7. Discriminant validity (II)			
	Trust	Continuance Intention	Transparency
Trust 1	0.9161	0.6871	0.7592
Trust 2	0.9296	0.6819	0.7272
Trust 3	0.9358	0.7323	0.7658
CI1	0.7429	0.9671	0.6771
CI2	0.7333	0.9814	0.6682
CI3	0.7351	0.9769	0.6717
Transp1	0.7242	0.6042	0.8863
Transp2	0.7280	0.6267	0.9242
Transp3	0.7334	0.6277	0.9216
Transp4	0.7493	0.6255	0.9320
Transp5	0.7434	0.6464	0.8774

Likewise, the discriminant validity can be established if the correlation between the items is greater with their construct than with any other included in the model. As can be seen, the results obtained in both cases enable us to accept the model's discriminant validity.

## 5.6. Structural model

An analysis of the structural model establishes that trust is related significantly to trust (path: 0.8101,  $t_{\text{value}}$ : 130.7341) which, in turn, is related to the intention to continue using the UNED's services (path: 0.5741,  $t_{\text{value}}$ : 28.9500). Likewise, transparency is directly related to the intention to continue using the UNED's services (path: 0.6895,  $t_{\text{value}}$ : 69.5182).

Table 8. Structural model			
	Original Sample	Standard Error	T Statistics
Trust -> Contin. Int.	0.5741	0.0198	28.9500
Transparency -> Trust	0.8101	0.0062	130.7341
Transparency -> Contin. Int.	0.6895	0.0099	69.5182

## 5.7. Quasi-mediated relationships

Given the importance of mediation effects for this research model, they must be explored by systematic analysis [49] [50] and have been used in studying the continued use of online platforms [51]. Based on repeated samples, a confidence interval of 95% was generated for each mediator. If the interval does not contain 0, then the indirect effect of that mediator is significantly non-zero (Sun, 2010). In our case, the interval is (0.4356; 0.49954), which establishes that transparency impacts the intention to continue using the UNED's services through trust.

Based on the foregoing results, we can accept the three assumptions used in this paper. In other words, transparency has a significant impact on generating trust ( $H_1$ ) and on the intention to continue using the UNED's services ( $H_2$ ). Likewise, the transparency perceived by users is related significantly to generating trust ( $H_3$ ). With respect to the relationship between transparency and the intention of continued use, this relationship is significant in a direct way and as a mediator through trust.

## 6. Conclusions

This paper was drafted with the aim of analysing the impact of the transparency policy on the trust and intention to continue using the UNED's services. In this sense, we should insist on the fact that restoring trust in the Public Sector is an essential element in its reform and modernisation processes.

A factor that will shape the other conclusions of this paper will be the high transparency perceived by the UNED's students, even though less than 10% of those who participated in the survey really knew "officially" the existence of the transparency programme of the institution that provides them educational services.

Using the results that were obtained, we can verify that the transparency perceived by its students is related to its transparent way of developing its internal processes for implementing the services and to the way in which it transmits information to its stakeholders. The perception of transparency is not necessarily only influenced by the decisive

approach to information dissemination but also by the less formal use of social media and networks. This is a possible explanation why very few (just over 5%) of those surveyed stated that they really knew about the specific resources offered by the transparency programme.

The second factor analysed was the relationship between transparency and trust since it had been doubted in certain cases, while other papers established that it was shaped by users' certain features, such as user experience.

Firstly, trust obtained a lower value than transparency and the intention to continue using the UNED's services. Perhaps one of the explanations for this is the double origin of trust in the e-government. In other words, perhaps the results are jeopardised by less trust in the medium used since, if trust is related to the use of the institutions' websites, in the case of the UNED, we should have had higher values. Another possible explanation is that, as stated in previous papers, the users exposed to a large volume of information about the public institutions, as in this case, have a more negative perception about their competence.

On the other hand, this paper focuses on analysing the relationship between transparency and the trust generated towards the institution. Based on our results, we can establish that the transparency policy carried out by the UNED is positively related to the trust placed in it by its users. That is to say, our results are in line with those considered to be traditional and relate the supply of the organisation's internal information to its stakeholders to greater degrees of trust.

Finally, we dealt with the relationships of both variables with the intention to continue using the UNED's services. As stated previously, the universities are pressured by exogenous factors, so they have to carry out transparency policies to facilitate their auditing, but the internal objective of gaining student loyalty, so that they can continue using their services throughout their lives, is just as important since loyalty affects income.

During budgetary restrictions, the ability to identify the formulae for maintaining or increasing the possibilities of self-funding by the public institutions is of vital importance for the future development of their activities. Specifically, universities such as the UNED, with a high degree of self-funding (in practice, nearly 100%), the marginal cost of gaining student loyalty is practically offset with the marginal increase achieved and, simultaneously, more is contributed to society than what it obtains from it –as it has been empirically

confirmed by the previous work referenced in the present paper for the specific case of the UNED.

Within the formulae for generating revenues, specifically by gaining the loyalty of current students, the offerings that had been mostly used until now in universities were based on providing postgraduate courses (Master's Degrees) and university-specific degrees for continuing education throughout people's lives. In other words, for the strategies of the institutions that provide university education, such as that analysed in this research paper, the key factor was gaining the loyalty of the students during the following value chain: degree-postgraduate course-continuing education at university level. Student loyalty vis-à-vis the competitors is a key factor for considerably extending the average duration of this value chain and of the financial resources to be obtained.

In our work, we verified, in line with previous papers, that trust is related significantly to the intention of continuing to use the institution's resources as an educational supplier. But perhaps the main new feature is that a specific relationship has been established between transparency and this intention. In this respect, there had already been many papers stating that the beliefs, including transparency, could determine the future intention of users.

As a limit to this research paper, we must state that the ability to add additional variables, such as trust, and being able to study certain characteristics of the users could condition our results.

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