Does trust play a role when it comes to donations?

A comparison of Italian and US higher education institutions

Abstract

Higher Education Institutions (HEIs) have experienced severe cutbacks in funding over the past few years, with Universities examining options for alternative funding streams, such as alumni funding. Identifying the factors influencing their alumni's intentions to invest in their alma mater can be of significant importance when establishing a sustainable revenue stream. Within this context, empirical research on the potential role of trust is scarce. This paper aims to deepen the analysis of the relationship between alumni trust and engagement as well as three outcomes, namely support, commitment, and attitude toward donation. A structural equation model was tested on two samples of USA (n=318) and Italian (n=314) alumni. Although both countries are affluent and developed countries, the USA has an established tradition of alumni donations, which is not such a developed practice in Italy. For both countries, results confirm that engagement is an antecedent of trust, which in turn leads to the three investigated outcomes (support, commitment, and attitude toward donations). In contrast, the effect of commitment on attitude toward donations is significant only for the USA universities. The paper has interesting theoretical and managerial implications. From a theoretical point of view, the study aims to address a gap concerning the role of trust in the HE context. Managerially, the study has significant implications for universities that want to change alumni attitude toward donations.

Keywords: *Higher Education Institutions; engagement; trust; commitment; support; attitude toward donations.*

1. Introduction

Over the past few years, Higher Education Institutions (HEIs) have experienced severe cutbacks in funding from government sources (Stephenson and Yerger 2014). Such austerity measures, as part of public funding reviews coupled with increasing international competition and new entrants, as well as events exogenous to HE, such as the COVID-19 pandemic, have had an impact on traditional income sources. As a result, universities depend ever more on private donors, who have become an important part of the financial mix and the well-being of HEIs (Tsao and Coll, 2005; Weerts and Ronca 2009, Iskhakova et al, 2020). Even though alumni contributions have always represented a significant source of university funding (Baruch and Sang 2012; Durango-Cohen and Balasubramanian 2015; Stephenson and Bell 2014) encouraging such a practice can make a positive impact on the stability and longevity of an HE institution.

Given the above, it has become crucial for HEIs to identify the factors influencing alumni's intentions to invest in their alma mater, especially in terms of financial support (Baruch and Sang 2012). For this reason, HEIs are increasingly exploring relational practices (Hemsley-Brown and Goonawardana 2007; Pinar et al. 2011) that are able to strengthen the interactions with their students and, especially, with their alumni (Stephenson and Yerger 2014). From a theoretical perspective, among the different antecedents leading to more positive attitudes toward donations, the concept of trust is a fairly new construct (Yousaf et al. 2018). Ghosh et al (2001) were among the first to analyse trust in the Higher Education (HE) context, describing it as a significant long-term solution that universities should adopt in order to face the fierce competition in the sector. However, despite the scant analysis of the concept of trust in HE, only a handful of studies have considered it and, as such, further research in the HE context is required (e.g. as argued by Carvalho and De Oliveira Mota 2010; Yousaf et al 2018). More recent studies have conceptualised the role of trust by identifying some of its possible antecedents (Dennis et al 2016; Jillapalli and Jillapalli 2014) and outcomes (Carvalho and Márcio De Oliveira Mota 2010; Dennis et al 2016; Jillapalli and Jillapalli 2014). The

present work aims to enhance this stream of research by further investigating and testing trust's antecedents and outcomes, especially when it comes to donations. More specifically, the research objectives of the study are twofold: firstly, to deepen the investigation of the alumni's trust by identifying and testing a possible antecedent, namely engagement, and three outcomes, which are support, commitment, and attitude toward donations, and secondly, to analyse the possible relationships between commitment and support and attitude toward donations. By addressing these two objectives, this paper seeks to make important contributions to the existing HE literature with regards to the underlying factors that encourage donations, which in turn could have significant implications for practice. To this end, six hypotheses have been developed and tested through a structural equation model, with data coming from two countries. The USA has been selected because alumni donations are widespread within a more market-oriented HE system. Hence, it acts a relative backdrop on which to establish a comparison. On the other hand, even though donations to universities exist in Italy too, such a practice is not widespread and HEIs are primarily funded by the state (Baruch and Sang 2012; Sung and Yang 2009).

The remainder of the article is structured as follows: The next section presents the hypothesis development by discussing the relevant literature. This is followed by the methodology and results. Finally, the last two sections discuss the findings, the theoretical and managerial implications, the limitations of the work and the potential directions for future research.

2. Background and hypothesis development

2.1 Engagement and Trust in the HE context

Engagement has been analysed within multiple disciplines, such as marketing, sociology, political science, and educational psychology (Brodie et al. 2011). By specifically focusing on the HE context, different studies have investigated the influence of students' engagement on their behaviour and attitude towards universities, both during their studies

(Baruch and Sang 2012; Koranteng et al., 2019; Sung and Yang 2009; Weerts and Ronca 2008; Snijders et al., 2020) and after their graduation (Snijders et al., 2019). For instance, Weerts and Ronca (2008) analysed the impact of students' engagement with a college by highlighting the importance of the experiences that they had during their university course. Conceptually, the main aspects characterising the engagement construct concern the level of students' academic and social involvement experienced with faculty and staff, the interactions with the alma mater, the exposure to diverse points of view, and the high quality of the academic programs. In this respect, engagement can be portrayed by the interactions experienced by students during their degree course (Weerts and Ronca 2008). As such, the quality of students' experiences during their course (e.g. academic programs, relationships with the academic staff, and extra-curricular activities) becomes a key factor characterising their engagement with the university (Baruch and Sang 2012), both in relation to face to face interactions as well as via remote channels such as social media, with various levels of perceived quality of interaction depending on the channel (Koranteng et al. 2019). Hence, interactions that facilitate a high quality of communication can enhance the engagement of students with the university where a student studies (Sung and Yang 2009). This engagement can in turn result in a long-term relationship and trust (Heffernan et al. 2018). Rojas-Mendez et al. (2009) conceptualised the personal experiences built with the institution as a fundamental antecedent of students' trust alongside other positive outcomes, such as loyalty (Snijders et al. 2020). This loyalty can lead to long-lasting relationships after the graduations of students, translated into monetary and non-monetary contributions to the university (Snijders et al. 2019).

The definition of trust has evolved over time and multiple conceptualisations have been proposed in the context of marketing (Wong and Ho 2011; Schlesinger Cervera and Pérez-Cabañero 2017). Some authors defined trust as a kind of customers' belief or confidence (Moorman et al. 1992; Morgan and Hunt 1994) that any future interaction with organisations and firms will be identical and positive (Sultan and Wong 2012).

Other researchers (Dowell et al. 2015; Morgan and Hunt 1994) conceptualised trust as a consumer's expectation that firms/organisations will not adopt opportunistic behaviours and they will offer products and services at a level of quality expected by the consumer. Overall, trust is perceived as a complex construct characterised by two elements: a cognitive one, which is based on the consumer's knowledge of the organisation and its capacities, and an affective one, concerning the emotional connection that an individual develops over time with the organisation (Heffernan et al. 2018).

In the context of HE, Ghosh and colleagues (2001, p. 325) were the first to examine the role of trust. For them trust is "*the degree to which a student is willing to rely on the institute to take appropriate steps that benefit him and help him achieve his learning and career objectives*". Hence, the personal learning and student experience someone has while studying can lay the foundations for the future relationship with their university and positively influence their behaviour towards them (Hennig-Thurau et al. 2001). To this end, reliability and integrity are key dimensions of a trusted relationship as captured by Morgan and Hunt (1994, p. 23), who defined trust as "*when one party has confidence in an exchange partner's reliability and integrity*". This definition has been adopted by a number of studies in the educational context which examined the role of trust in relationship commitment. Specifically, students' trust in the university is influenced by: the common and shared values between them and the organisation (Wong and Ho 2011); their emotional connection with the organisation (Komljenovic 2019); the perceived quality of teaching and other services that students receive (Hennig-Thurau et al. 2001); as well as their overall satisfaction. Trust in turn can have a significant effect on the loyalty that students feel towards the institution (Rojas-Mendez et al. 2009). Trust can also be built after graduation by encouraging interaction between the graduates and the university by promoting respect, responsibility and reciprocity (Harrison 2018).

Given the above, it is expected that the higher the level of students' engagement with the university, the higher their trust toward it is. We thus formulate the first hypothesis as follows:

H1. *Prior engagement with the university positively influences trust towards it.*

2.2 Attitude toward donations

Faced with the extremely competitive marketplace characterising the HE context, institutions and universities are increasingly searching for new strategies to connect with their graduates and seeking ways in which they can contribute to the institution (Johnson et al. 2010; Weert and Ronca 2008). Such methods may involve tools that are typically used in the commercial sphere, such as crowdfunding, and go beyond the typical scope of donations (Cho et al, 2019). Irrespective of the mechanism or channel by which money is raised, it also worth noting that the widespread credit crunch of recent years has led to a reduction in the level of donations for all universities (Gallo, 2018; Baruch and Sang 2012). In this respect, additional income sources other than tuition fees are of relatively higher importance for the HEIs as they help diversify income streams and avoid over reliance on tuition fees. In particular, alumni donations have become a fundamental part of these sources (Baruch and Sang, 2012; Bastedo et al. 2014; Dennis et al 2016). For this reason, the interest of scholars in alumni attitude toward donations has been growing increasingly, especially in recent years (Stephenson and Yerger 2014). Indeed, over the past two decades, several authors have attempted to identify the main factors leading alumni to donate to their alma mater (Weerts and Ronca 2008). Other studies investigated socio-economic variables, such as income and education, past giving, sector of employment, type of financial aid received, as well as demographic indicators (Gunslaus 2004; Newman and Petrosko 2011; Wunnava and Lauze 2001), such as age, ethnicity, income, gender, residence, marital status (Clotfelter 2003; Drezner 2018; Holmes 2009; Hueston 1992; Okunade and Berl 1997; Weert and Ronca 2008). Other researchers focused their attention on behavioural factors, such as volunteering for the college, membership in alumni chapters, and reunion attendance (Durango-Cohen and Balasubramanian 2015). Furthermore, characteristics related to institutions and universities have been investigated, such as size, type of institution, or endowment value.

For instance, McAlexander and Koenig (2010) found that alumni who belong to smaller institutions feel more integrated and inclined to support their university community than do graduates of larger institutions. Similarly, past work has examined how institutional reputation can potentially impact attitude and in turn support and donations (Shaari et al. 2019). Finally, work has specifically investigated the social exchange factors, such as the experiences undergone by alumni during their university course, the quality of education, career gains, and social connections, satisfaction with student affairs and campus resources (Leslie and Ramey 1988; Stephenson and Yerger 2015; Taylor and Martin 1995). Notably, social exchange theory proposes that alumni attitude toward donations is in part influenced by their perceptions of the quality of their past experiences with the university (Clotfelter 2003; Weerts and Ronca 2008).

Starting from these assumptions and from the need to identify additional factors that may explain the alumni intention of donating to their alma mater (Baruch and Sang 2012), in the present study the trust construct has been investigated as a possible predictor of alumni attitude toward donations. In this way, the work aims to enrich the literature focused on the identification of additional social exchange factors leading alumni to donate to their university. Sargeant and Lee (2004) found how trust plays a key role in facilitating the stimulation of monetary donations, while Melendez (2001, p. 121) suggested that "*donors do not contribute to organisations they do not trust and about which they do not feel confident*". Based on these findings, we hypothesise that trust can lead to more positive attitudes toward donations, also in the HE context. In particular, as stated above, trust within this sector can be perceived as a feeling that grows as students undergo positive experiences with their university (Heffernan et al. 2018). By also considering that the alumni attitude toward donations is influenced by the quality of past experiences they had during their university course (Weerts and Ronca 2008), it could be assumed that the better the experiences undergone by alumni during their university course, the higher the level of alumni's trust toward their university, the more positive their attitude toward donation is. This argument leads to the second hypothesis:

H2. *Trust towards the university positively influences attitude toward donations.*

2.3 Support

In the HE context, the concept of support refers to the active participation of alumni who decide to support their university beyond graduation (Weerts and Ronca 2008). In addition to welcoming philanthropic donations, HE Institutions often consider alumni as a key enabler to contribute to the mission and vision of the university via various non-monetary forms of support, e.g. their time (Gallo 2018), which can be invested in a number of different activities, or by promoting the university to potential students (Sung and Yang 2009). Alumni can support their alma mater in multiple ways: e.g. by attending alumni events, assuming the role of mentor to students, collaborating with the university's academic staff, participating in research projects, or becoming a volunteer for the university (Mael and Ashforth 1992; McDearmon 2013; Sung and Yang 2009). As stated by Weerts and Ronca (2008), alumni volunteers represent valuable assets to their institutions. Through their professional and social networks, they can lend their experience, help formulate strategic directions for the institution and act as mentors, recruiters, and club leaders.

Based on the relevance of alumni as a critical source of support for HEIs (Mael and Ashforth 1992), different studies have attempted to identify the main factors leading to the creation of supportive alumni-university long-term relationships (Weerts and Ronca 2008). In particular, emotional attachment, the high quality of educational experiences (Weerts and Ronca 2008), and loyalty (Hennig-Thurau et al. 2001) are some of the main antecedents of alumni support identified in the literature. Such student experience can be of a very personal nature and even be the result of unconscious motives (Drezner and Garvey 2016).

By underlining the key role of trust in building and maintaining long-term relations between alumni and their alma mater, Ghosh and colleagues (2001) confirmed the strategic implication, for universities, of having alumni who trust and consequently

support them. Therefore, it could be hypothesised that the more the alumni are confident about their alma mater, the more they will support it. Hence:

H3. *Trust towards the university positively influences support*.

In addition, graduates of a university can make monetary contributions to their university. Previous literature suggests that undergraduates who have a close relationship with their university while studying are more likely to become donors after graduation (Sung and Yang 2009). However, strong relationships between students and their university can continue after graduation by enhancing reciprocity and trust (Harrison 2018). Hence, we hypothesise that the stronger the supportive behaviour in the form of non-monetary contributions the more likely are positive attitudes towards donating to the university. Alumni who actively support the university's activities are expected to be more philanthropic and consequently more inclined to sustain their alma mater from an economic perspective (Newman and Petrosko 2011). Similarly, Taylor and Martin (1995) have identified how alumni are generally more involved in being active donors when they are active in organising the university's activities, like for instance sporting events (Diaz Vidal and Pittz 2019).

Based on this, the fourth hypothesis is formulated:

H4. *Support for the university positively influences attitude toward donations*.

2.4 Commitment

Previous literature (Johnson et al. 2010; Poole 2017) has identified three different forms of commitment that a person can experience with an organisation: [1] affective commitment, related to the emotive connection towards the organisation; [2] continuance commitment, namely a connection based on the fact that the costs of maintaining the relationship are less than the costs of ending it; and [3] normative commitment, which represents a sense of obligation to maintain the relationship. However, most studies consider affective commitment as the form that is most likely to occur in consumer-

organisation relationships (Sung and Yang 2009). Affective commitment represents a connection that makes it possible to increase loyalty, positive word-of-mouth, consumers' participation, and volunteering (Poole 2017).

In the HE context, affective commitment represents a key factor (Schlesinger et al. 2017; Weerts and Ronca 2008), since it is viewed as a student's belief that a continuous relationship with their alma mater is so significant that it justifies maximum effort in order to maintain it (Dennis et al 2016; Johnson et al. 2010; Jillapalli and Jillapalli 2014; Pedro et al, 2020).

By focusing on commitment's possible antecedents, some authors (Dennis et al 2016; Frasquet et al. 2012; Hennig-Thurau et al. 2001; Jillapalli and Jillapalli 2014; Rojas-Mendez et al. 2009; Schlesinger et al. 2017) have analysed the role of trust in reducing anxieties and dissonances in the HE relationships. When students develop trust in their institution during their degree course, it will be easier for them to build committed relationships with it (Dass et al. 2020; Jillapalli and Jillapalli 2014; Pinar et al. 2020; Yousaf et al. 2020), which may extend beyond their graduation. Moreover, Dennis et al (2016) found that trust can enhance the efficiency of a relationship with a consequent positive effect on satisfaction and commitment.

Based on these findings, it could be hypothesised that the more a university is trusted, the higher is the level of alumni commitment towards it.

This leads to the following hypothesis:

H5. *Trust towards the university positively influences commitment to the university.*

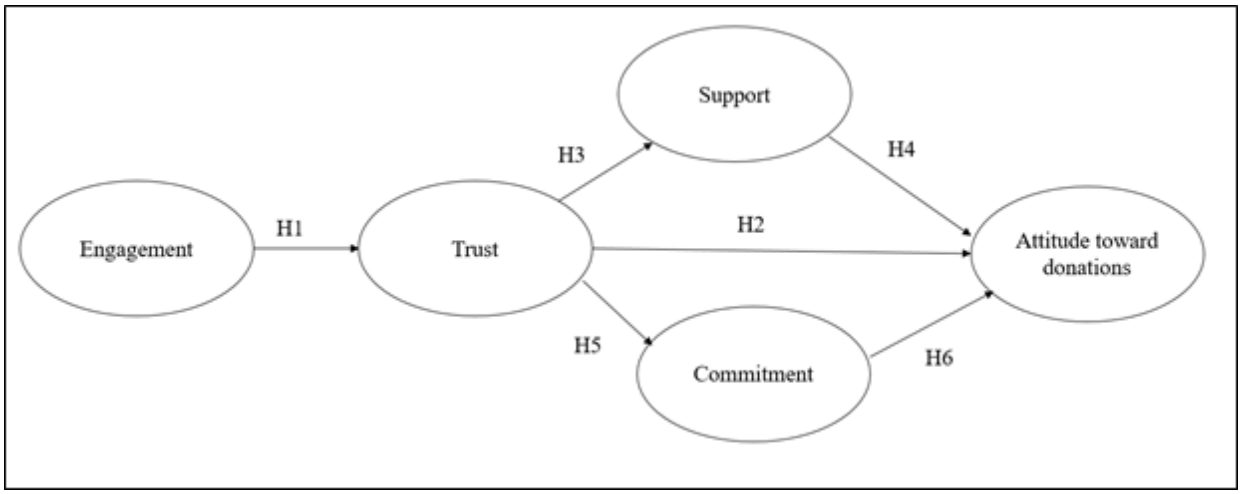
Previous literature (Balaji et al. 2016; Jillapalli and Jillapalli 2014) attempted to identify the main outcomes resulting from the development of committed relationships between alumni and their university. Notably, past studies provided evidence as to how commitment can create a strong sense of alumni identification with their university, thus motivating the alumni to maintain the relationship with their alma mater and to continue their postgraduate studies at the same institution (Perin et al. 2012). In addition,

commitment has been found to increase loyalty, relationships with the institution, participation, positive word-of-mouth, and volunteering (Jillapalli and Jillapalli 2014). Moreover, Poole (2017) detected how passionate and very committed graduates are generally more active supporters in different ways. In particular, by specifically focusing on the alumni intention to make donations, Baruch and Sang (2012) suggested that alumni commitment can contribute to this specific attitude. Starting from these findings, we expect that a higher level of commitment leads to a more positive attitude toward donations. Therefore:

H6. *Commitment to the university positively influences attitude toward donations.*

Figure 1 presents the conceptual model and the related hypotheses.

Fig. 1. Proposed conceptual framework



3. Research method

3.1 Data collection

The study was carried out in two countries, namely the US and Italy. Collecting data from more than one country to test a model is not necessary but, nevertheless, it helps to confirm the stability of the model (Cadogan 2010). The US and Italy were chosen in order to take advantage of the contrast in the HE contexts between the two countries (Clark and Cullen 2016). The US was selected as HEIs in this country have strong global brands, high levels of engagement, and very positive attitudes towards donation

(McDonald 2014; Drezner 2019). In particular, as regards the last aspect, the donation functions in US are among the leading ones in the world and universities usually pursue activities aimed at encouraging donations, like for instance the organisation of fundraising events, commonly named "days of giving"[1]. As such, the US offers a benchmark on which to compare and contrast findings from other countries, such as Italy (Baruch and Sang 2012; Sung and Yang 2009), in which alumni donations are not such a popular practice as in the US. Although we do not express our hypotheses in terms of cultural dimensions, we also note that the two countries in our sample vary substantially on Hofstede's (2003) cultural constructs, which might be relevant to our research topic. For example, Italy is higher on uncertainty avoidance and long-term orientation but lower on indulgence, so Italians may consider higher education more as a long-term investment compared to US counterparts. In addition, the Italian HE is more centrally controlled compared to the US and other G7 countries, such as the United Kingdom, that could have been chosen (De Feo and Pitzalis 2017). G7 countries, i.e. the seven most advanced economies in the world (Canada, France, Germany, Italy, Japan, the United Kingdom and the United States) offer a sufficiently homogenous group with regards to the size of their economies and the development of their HE systems.

The study employed an online survey. To prevent potential biases, different recommendations of MacKenzie and Podsakoff (2012) have been adopted. First, in order to reduce social desirability bias, the complete anonymity and confidentiality of responses have been assured through a statement included in the introductory part of the questionnaire. Second, we assured respondents that there are no right or wrong answers and that they could have different opinions about the issues examined. Finally, in the introduction section, we anticipated that some of the questions were personal, and, in order to be completed, they consequently required the absence of possible factors of disturbance.

[1] See for instance: https://www.umass.edu/giving/; https://dayofgiving.uni.edu/; https://louisianatechgivingday.org/giving-day/12228; https://givingday.uconn.edu.

In the USA, a market research company recruited participants in order to control quotas of gender, age, and area of residence. After sending the survey link, the market research company obtained 318 valid responses. In Italy, a pilot test was conducted and a preliminary version of the translated questionnaire into Italian was administered to five volunteer participants. The questionnaire was adapted and adjusted based on the comments of the respondents related to language, the order of the questions, and the understanding of the concepts. In order to ensure the consistency of the Italian and English versions of the questionnaire, translation and back-translation procedures (Behling and Law 2000; Brislin 1970) were adopted. When it came to recruiting participants, two of the authors and two external collaborators handled this phase. The data was collected via an online survey, obtaining 314 valid responses. Table 1 presents the profile of the two samples.

Table 1. Respondents' profile

Characteristic	Frequency USA	% USA	Frequency Italy	% Italy
Gender				
Male	141	44.3	103	32.8
Female	177	55.7	211	67.2
Age (years)				
20-29	126	39.6	250	79.6
30-39	185	58.2	39	12.4
40 or over	7	2.2	25	8.0
Area of residence				
Urbanised area	159	50	86	27.4
Urban cluster	120	37.7	184	58.6
Rural	39	12.3	44	14.0
Income				
$0 - $24,999	29	9.1	114	36.3
$25,000 - $49,999	82	25.9	117	37.3
$50,000 - $74,999	73	23.0	45	14.3
$75,000 - $99,999	70	22.1	31	9.9
More than $100,000	63	19.9	7	2.2
Education attainment				
Current university student	8	2.5	3	1,0
University graduate (e.g. Bachelor)	225	70.8	203	64.6
Graduate degree (e.g. Master)	74	23.3	100	31.8
Doctorate	11	3.5	8	2.5
Donating behaviour				
Donation since graduation	74	23.3	12	3.8
No donation since graduation	244	76.7	302	96.2

3.2 Construct measurement

For all constructs, we used the same question ("Please select the option that applies to each of the statements below") and a seven-point scale has been adopted (ranging from 1 = "Not likely at all" to 7 = "Extremely likely" for support, from 1 = "Strongly disagree" to 7 = "strongly agree" for engagement, trust, and commitment and from 1 = "do not agree" to 7 = "completely agree" for attitude/intention toward donations). More specifically, the statements concerning engagement were formulated through a revision of the scale proposed by Banahene (2017), while those related to trust were developed and validated by Jillapalli and Jillapalli (2014). The alumni support items were extracted and adapted starting from the study of Bellezza and Keinan (2014), while the scale proposed by Jillapalli and Jillapalli (2014) has been adapted to measure the concept of commitment. Finally, attitude/inclination toward donations was measured by adapting the items extracted from the study of Johnson et al. (2010).

Common method bias was assessed by employing Harman's single-factor test, which suggests that common method bias has affected the results of a study when a single factor containing all items included in a questionnaire explains over 50% of the variance (Podsakoff et al. 2003). In this study, the single factor explains 42.2% of the variance, therefore common method bias is not an issue.

The constructs in this study are reflective measures as specified by Jarvis, MacKenzie, and Podsakoff (2003). The authors develop a set of criteria for determining reflective models, which are fulfilled by the construct measurement in this study. The direction of causality is from construct to items and indicators are manifestations of the construct. Further, indicators share a common theme and covary with each other. Additionally, the nomological net for the indicators does not differ.

3.3 Data analysis

As constructs are measured reflectively with several items and the sample size is large enough, the authors apply covariance-based structural equation techniques (Hair et al.

2018). Testing the proposed model requires an operationalisation of the hypothesised latent constructs and associated indicators, which is only possible with SEM (Bagozzi and Yi 2012). When covariance-based structural equation modelling is performed, the error terms are modelled for each indicator and loadings of the specific indicator are obtained, thus the quality of the latent constructs modelled can be adapted and improved. Confirmatory factor analysis in SEM allows all latent constructs to covary and thereby permits evaluation of both convergent and discriminant validity for each construct (Bagozzi and Yi 2012; Hair et al. 2018). The fit between the observed and estimated models can be obtained and evaluated. Further, relationships including mediating variables can be measured in one model, which is a major improvement over multiple regression (Bagozzi and Yi 2012; Fabrigar, Porter, and Norris 2010; Schreiber 2008). AMOS (version 22.0) was used as it represents a user-friendly software package to model covariance-based SEMs (Byrne 2016).

The following steps for analysing the data in order to assess the relationships among the underlying constructs were taken: an exploratory factor analysis (EFA) was conducted to identify the underlying relationships between the measured variables. This was followed by confirmatory factor analysis (CFA), which was used to assess the validity of the constructs. In turn a multi-group structural equation model (SEM) was performed to test the hypothesised relationships between the constructs and to assess differences between the countries. Finally, an additional model was tested, including possible covarying variables.

4. Results

4.1. Measurement reliability and validity

With 318 respondents in the US and 314 in Italy, we were above the rule of 200 (Kline 2011) and the sample-to-item ratio was about 12.5, which is higher than the acceptable ratio of 5:1 (Gorsuch 1983) and this leads us to conclude that we have an adequate sample size. We calculated the Kaiser–Meyer–Olkin (KMO) as well as Bartlett's Test of

Sphericity to measure sampling adequacy (Hutcheson and Sofroniou 1999). The KMO is 0.957 (>0.5) and Bartlett's Test of Sphericity is significant ($p < 0.001$); therefore, the data are suitable for factor analysis. We used principle component analysis with varimax rotation. As hypothesised, all five constructs had eigenvalues > 1, explaining 79.3 per cent cumulative variance. Of the initial 25 items, no item had significant cross-loadings (>0.50) and all loaded on the original constructs.

Prior to testing the structural model with data for both countries, the requirements of instrument validity and reliability must be met. Confirmatory factor analysis (CFA) using AMOS 22.0 was performed to determine the discriminant and the convergent validity of the scales. Hair et al. (2018) recommend a factor loading (FL) value higher than .50 for an item to be significant. Table 2 presents the factor loading values for the individual items. Additionally, at construct level, Hair et al. (2018) proposed the calculation of composite reliability (CR) and average variance extracted (AVE) instead of Cronbach's alpha when using structural equation modelling (SEM).

Table 2. Factor loading values from the CFA for the different items measuring the research constructs

Constructs	Items	Factor Loadings
Prior engagement with the university	I really like to talk about this university with others.	.862
	I am always interested in learning more about this university.	.869
	I would be interested in merchandise with this university's brand name on it.	.787
	I am proud to have others know I study in this university.	.835
Commitment	I am very committed to this university.	.893
	This university is very important to me.	.920
	I really care about this university.	.873
	I believe that this university deserves my effort to maintain a relationship.	.841
	I feel a need to ensure the success of this university.	.768
Support	How likely are you to attend alumni events?	.812
	How likely are you to become a mentor for students in this university?	.871
	How likely are you to give a guest lecturer in this university?	.847
	How likely are you to volunteer for this university?	.867
	How likely are you to host a student project for this university?	.846
	How likely are you to engage with academic staff in this university?	.840
	How likely are you to take part in a research project in this university	.798
	How likely are you to attend a public lecture in this university	.824
Trust	This university can be trusted.	.869
	This university can be counted on to do what is right.	.858
	This university has high integrity.	.899

	This university keeps its promises.	.872
Attitude towards donation	Donating money to this university is a good idea.	.917
	I am favourable towards donating money to this university.	.931
	Donating money to this university is a wise idea.	.959
	I am positive about donating money to this university	.951

Convergent validity was examined by calculating the average variance extracted (AVE) and the construct reliability (CR). AVE needs to be >.50 (Fornell and Larcker 1981), while the CR should be >.60 (Bagozzi and Yi 1988). All our AVE and CR values are above the recommended thresholds. To test for discriminant validity, all AVE values need to be higher than the squared inter-construct correlation estimates (SIC). Details for AVE, CR, and SIC values are provided in Table 3.

Table 3. Validity results for the model

			SIC				
	AVE	**CR**	**Engagement**	**Commitment**	**Support**	**Trust**	**Attitude**
Engagement	.70	.91	1.00				
Commitment	.74	.93	.60	1.00			
Support	.70	.95	.40	.39	1.00		
Trust	.77	.93	.39	.49	.18	1.00	
Attitude	.88	.97	.41	.32	.30	.28	1.00

Note: all correlations are significant, $p < .01$

4.2. Fit of the measurement model

A multi-group structural equation model was conducted to assess the relationships among the underlying constructs. The measurement model was tested to determine its fit to the research data. An acceptable model fit was achieved with $Chi^2 = 777.15$; $df = 249$; $p < .01$; $Chi^2/df = 3.12$; IFI = .97, TLI = .96, CFI = .97; and RMSEA = .06. For a meaningful comparison of the model for both countries, the instrument measuring the various constructs has to possess cross-country equivalence. To meet the requirement of equivalence, configural and, at least partial, metric or scalar invariance has to be confirmed to compare the findings for the two groups of consumers (Hair et al. 2018; Steenkamp and Baumgartner 1998; Vandenberg and Lance 2000).

Metric invariance was tested by means of nested multiple-group CFA. We found a significant difference between the free and the restricted model (i.e. factor loadings restricted to being equal across countries) ($\Delta\chi^2=59.41$, $df = 20$, $p < .01$). However, a

partial metric invariance model, in which two factor loadings of the construct support were constrained to be equal, leads to a non-significant difference between the constrained and the unconstrained model ($\Delta\chi^2$=20.59, df = 18, p = .08) compared to the unconstrained model. Hence, the assumption of partial metric invariance has been met (Thøgersen et al. 2015).

4.3. Test of the structural model

We conducted a structural equation model by using SPSS AMOS to assess the relationships among the underlying constructs. The results suggest an acceptable model fit (Chi^2 = 1191.02; df = 253; Chi^2/df = 4.70; IFI = .94, TLI = .93, CFI = .94; RMSEA = .08). By examining the equality of structural weights, the significance of the overall difference in the factors influencing attitude towards donations of both Italian and US alumni was determined. The path coefficients, as well as the critical ratios for significant differences on the individual paths between the samples, are reported in Table 4.

Table 4. Standardised parameter estimates of the structural model

Parameters	Overall Sample n=632	Italian Alumni n=314	US Alumni n=318	Critical Ratio
Engagement → Trust	$.68^{***}$	$.62^{***}$	$.74^{***}$	$.15^{ns}$
Trust → Support	$.48^{***}$	$.33^{***}$	$.54^{***}$	3.66^{**}
Trust → Commitment	$.74^{***}$	$.75^{***}$	$.75^{***}$	$.61^{ns}$
Trust → Attitude	$.30^{***}$	$.26^{**}$	$.30^{***}$	$.12^{ns}$
Commitment → Attitude	$.16^{**}$	$.13^{ns}$	$.26^{***}$	2.37^{*}
Support → Attitude	$.31^{***}$	$.16^{**}$	$.35^{***}$	1.48^{ns}

*** p <.001; ** p <.01; * p <.05; ^{ns} not significant

In the overall model, all hypothesised relationships are confirmed. The multi-group analysis reveals that for both samples the influence of engagement on trust is statistically significant. The same holds true for the influence of trust on commitment. Trust significantly influences attitude towards donations both directly and indirectly in both countries. One significant difference between the Italian sample and the US sample is found in relation to the influence of trust on support. This influence is stronger for US respondents (β = .54, p<.001) compared to Italian respondents (β = .33, p<.001). A second significant difference between the two countries refers to the path between

commitment and attitude towards donation. Again, the influence of commitment on attitude towards donations is stronger for US respondents (β = .26, p<.001) than for Italian respondents (β = .13, p=.12). No significant differences between Italian and US respondents were detected for the relationship between trust and attitude towards donations, or for support and attitude towards donations. An additional model was tested including gender, age and years since the graduation as covariates. In the Italian sample none of these variables is significant. In the US sample, only years since graduation (β = -.15, p=.003) are significant. Figure 2 and 3 present the findings from the structural model.

Figure 2: Structural model (ITA)

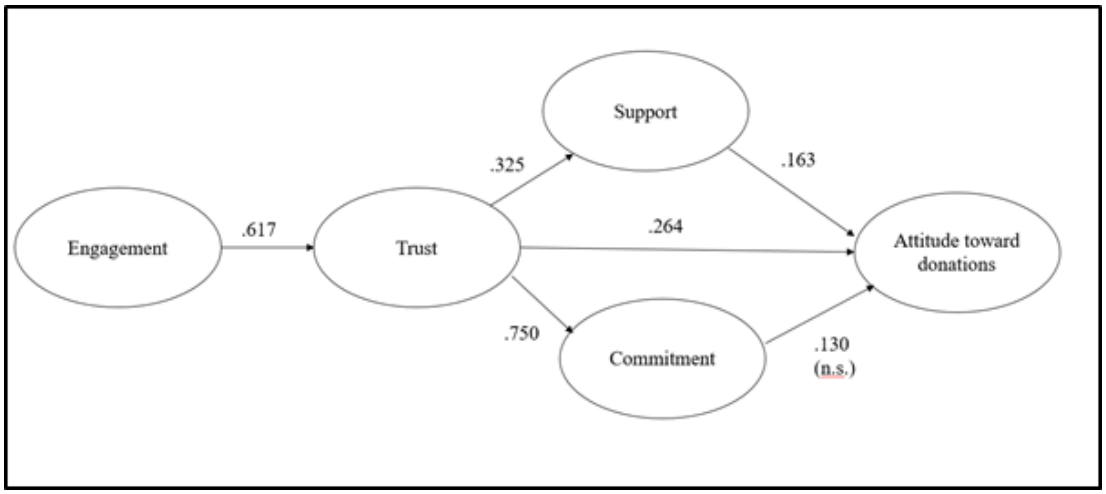
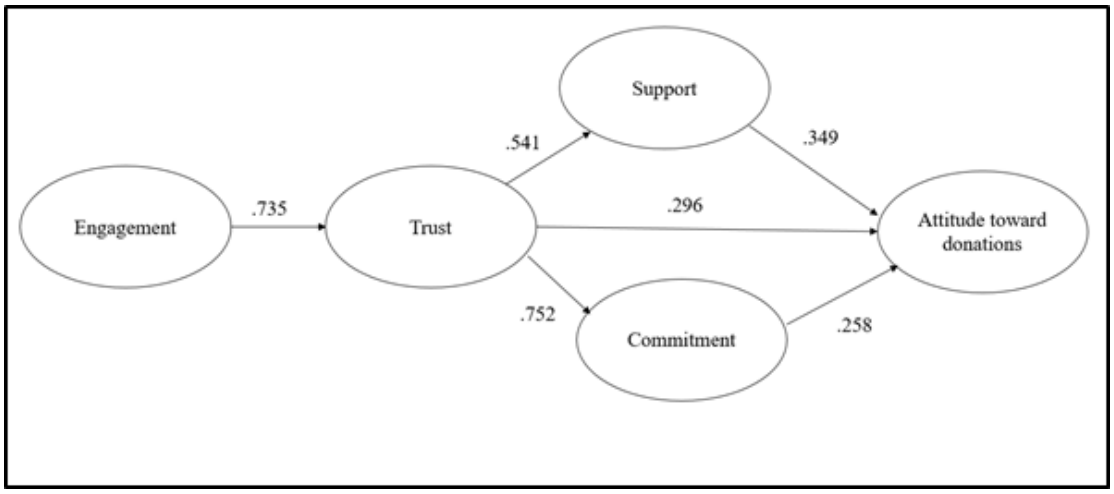


Figure 3: Structural model (USA)



5. Discussion and conclusions

5.1 Discussion of the results

The empirical results support H1 since, in both countries, a positive relationship was confirmed between engagement and trust. This finding confirms how, in both HE contexts, prior engagement with the university represents a significant antecedent of trust toward it. By confirming this relationship, the results corroborate the relevance of the engagement construct as a key factor in the building of students' trust toward the alma mater. Overall, this outcome strengths prior studies (Hennig-Thurau et al. 2001; Komljenovic 2019; Weerts and Ronca 2008 Wong and Ho 2011) that claim that students' trust in the university is also influenced by their emotional connection with it.

With respect to H2, data confirmed a positive relationship between trust and attitude toward donations, for both countries. Such a finding is in line with recent findings suggesting that alumni trust is a predictor of self-reported giving and attitudes, even when controlling for socio-demographic characteristics (Drezner et al, 2020). In this way, it has been possible to corroborate how significant this tie is, not only in the charity and non-profit sectors (Melendez 2001; Sargeant and Lee 2004), but also in the HE context. Notably, the confirmation of this positive relationship has made it possible to detect the role of trust as a key factor leading alumni to donate to their alma mater (Baruch and Sang 2012), thus enriching the literature focused on the identification of social exchange factors able to stimulate alumni attitude toward donation.

The positive relationship between trust and commitment (H5) confirms, for both countries, how commitment represents an outcome of trust, thus corroborating previous studies (Dass et al. 2020; Dennis et al., 2016; Helen and Ho 2011; Hennig-Thurau et al. 2001; Jillapalli and Jillapalli 2014; Pedro et al. 2020; Pinar et al. 2020; Rojas-Mendez et al. 2009; Schlesinger et al. 2017; Yousaf et al. 2020). In detail, the development of students' trust toward their institution can lead to the building of committed student-university relationships, which may continue beyond graduation.

Conversely, a significant difference between the two samples emerges concerning the influence of trust on support (H3) and commitment on attitude toward donations (H6), which are stronger for US respondents. In other terms, in the American context, not only does the trust construct represent a more significant factor leading to the establishment of supportive alumni-university long-term relations, but commitment also plays a more active role in the formation of alumni attitude toward donations. Therefore, these results allow us to corroborate and enrich the extant studies analysing the role of trust as an antecedent of student support (Ghosh et al. 2001) as well as those examining the role of commitment as a factor leading to the formation of alumni attitude toward donations (Baruch and Sang, 2012; Jillapalli and Jillapalli 2014; Poole 2017).

Although much less significant, a difference in favour of the American sample also emerges for the relationship between support and attitude toward donation (H4).

More specifically, this result underlines how supportive alumni-university relationships represent, for the American HEIs, a more significant predictor in the development of alumni inclination to donate to their alma mater, thus confirming previous studies analysing this connection (Diaz Vidal and Pittz 2019; Newman and Petrosko 2011).

Overall, these results underline how the American universities are more able to trigger a virtuous cycle in the relations with their students, since when students enter the American HEIs, they become involved in the university's life to the point of transforming this engagement status into trust and then into support and affective commitment, which in turn leads to positively influencing attitudes toward donation, once studies are over. In contrast, Italian universities appear to be less able to activate this process, failing to transform their alumni commitment into a more marked inclination to support them with donations. In regards to the insignificance of the relationship between commitment and attitude toward donations in the Italian context, this result may appear at first sight to be in contrast to what might be expected in light of Italy's higher scores for uncertainty avoidance and long-term orientation (Hofstede 2003), which might have been expected to lead to Italians investing in higher education for the future. On the other hand, we

speculate that perhaps alumni spending on donations might be considered as indulgent, and thus in line with the US's higher scores on indulgence (Hofstede 2003). As noted earlier, collecting data from more than one country was intended primarily to help confirm the stability of the model (Cadogan 2010). In this respect, it appears that Italy and the US have similar models of engagement through trust to commitment and also in the direct and indirect influence of trust on attitude towards donations. Nonetheless, there are differences in the "support" arm of the model, particularly in turning commitment into donations, which may be down to cultural differences and possibly due to the fact that Italians may consider higher education as a long-term investment, which is not the case for the Americans. The influence of differences in sampling cannot be eliminated but gender and age are non-significant as covariates.

5.2 Theoretical and managerial implications

Theoretically, the study aimed to address a gap concerning the role of trust in the HE context (Yousaf et al. 2018; Carvalho and De Oliveira Mota 2010). In particular, the relationship between engagement and trust has been analysed, thus enriching the literature focused on the analysis of the antecedents of trust (Dennis et al 2016; Jillapalli and Jillapalli 2014). The study also investigates the connections between trust and (i) support, (ii) commitment, and (iii) alumni's attitude to donating. Concerning the first two relationships, the study corroborates the findings of previous studies (Dennis et al 2016; Ghosh et al. 2001; Jillapalli and Jillapalli 2014), by identifying the influence of trust on both constructs. As regards the relationship between trust and attitude to donating, the present research underlines the significance of this tie in the HE context too, thus enriching previous findings which have analysed this relationship in different sectors, such as the charity and non-profit ones (Melendez 2001; Sargeant and Lee, 2004). Moreover, starting from the key role currently assumed by alumni contributions in the HE context (Durango-Cohen and Balasubramanian 2015), the paper identifies three outcomes leading alumni to become more inclined to donate to their alma mater, namely trust,

support, and commitment, although with different results for the two investigated samples. Overall, the study provides relevant contributions to the extant HE literature by analysing the influence of trust on the formation of alumni's attitudes and behaviours and by identifying a possible process leading alumni to change their attitude towards donating to their universities. Testing in more than one country helped to confirm the stability of the model. The main difference between the countries is in the US being more successful at turning commitment into donations. In this respect, the results highlight how the American universities are more able to manage this virtuous cycle since students who are engaged with them will probably become more confident and committed alumni, supporters, and donors. Such findings may need to be contextualised more, though, as both the student and the HE education context in which they operate can affect alumni loyalty and in turn support (Iskhakova et al, 2020).

Managerially, the study provides significant implications for universities that want to change alumni attitude toward donations. In particular, both Italian and American HEIs should encourage students to become more engaged in their university, by instilling a sense of affinity between students and their alma mater. Notably, Dennis et al (2016) recommended that universities build marketing and student recruitment by creating and nurturing relationships in novel ways with students, for example using networking events, social media (Dyson et al. 2015), campaigns, customised clothing, regalia, and so on. Moreover, all these activities could make the university experiences, as lived by students, ever more positive, thus transforming them into more confident individuals, beyond their graduation too. For this reason, alumni's trust should be nourished over time by universities since it is becoming fundamental in order to build committed and supportive relationships with their alumni. Therefore, by continuing beyond graduation, this sense of belonging could stimulate alumni's attitudes toward volunteering and donations. Overall, the results confirm the key role of trust in shaping alumni attitudes toward donations. It is thus crucial for American and Italian HEIs to make every effort, for example, to organise extra-curricular activities, which can help to enhance the quality of their educational

experiences. On the other hand, affective commitment represents a significant predictor of attitude toward donation only for American universities. This means that Italian universities should do more to stimulate the alumni level of commitment with their alma mater from an emotional point of view. In particular, universities could adopt different tools (e.g. university's merchandising, social media communities, official websites) in order to stimulate the level of alumni's commitment, thus making it possible to develop and maintain continuous and direct contacts with them.

Finally, the identification of a virtuous cycle able to increase the inclinations of alumni to donate to their alma mater represents a further implication provided by the study. The more positive the experiences undergone by students during their degree course are, the more they will become confident alumni in the future. This trust, built and nourished over time, could be translated into emotional attachment (commitment) and supportive behaviours (support), which in turn can also lead to a more marked alumni inclination to donate. Faced with this possible process, universities are recommended to organise specific activities for each phase in order to: (i) allow students to have positive experiences during their degree course (not only experiences related to their academic career, but also linked to moments of leisure and interaction between each other); (ii) maintain and constantly nurture the trust of their alumni, by adopting activities aimed at reminding them that the university has not forgotten its students after their graduation (e.g., organisation of events dedicated to ex-students; submission of newsletters or online surveys with the final aim of learning more about their work path after graduation, or in order to inform them about new educational opportunities such as Masters, which could allow them to build upon their previous studies); (iii) adopt multiple tools able to strengthen the alumni's emotional attachment (e.g., related to the university's merchandising); (iv) stimulate the alumni's supportive behaviours, thus transforming them into active stakeholders (e.g., management of the social media communities, forums, blogs, creation of online groups specifically targeting ex-students with the aim of encouraging them to participate in university life even after their graduation).

6. Limitations and future research

This paper is subject to some limitations. First, we focused our attention only on the engagement, trust, support, and commitment constructs as antecedents of attitude toward donations. In the future, it could be interesting to analyse additional constructs such as attachment strength, reputation, satisfaction, and perceived quality (Dennis et al 2016; Jillapalli and Jillapalli 2014). Similarly, future studies could also focus attention on additional outcome variables, such as the actual behaviours of alumni giving instead of their attitude toward donations. Second, we employed a convenience sample, which compromises the ability to generalise to the population. Future studies could use the insights emerging from this work as a basis for developing studies on the same or extended target populations by drawing on probability samples. Third, only two countries (USA and Italy) have been selected and analysed. As there are differences between these two countries, additional countries should be investigated in a cross-national study. In particular, cultural differences should be investigated, not least to explore the possible influence of indulgence. In addition, future studies could focus their attention on more countries, showing differences in terms of marketisation of HE, fees, or systems (for instance, public versus private). Samples could not be representative of each country, but rather aimed to provide a reasonable distribution among demographic characteristics. The differences that we report between the samples might be cultural differences surrounding the idea of donating to higher education, but might also arise from the uncontrolled nature of the schools represented, the degrees awarded, the ages of the participants, or something else not measured. Cross-cultural research with more controlled samples is recommended to resolve these issues. Finally, since only the point of view of alumni has been investigated in this work, future research could examine the specific actions adopted by the management of American and Italian universities, in order to identify how the former manage to create the virtuous cycle, and why the latter are not able to create it.

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