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Student's Co-Creation Behavior in a Business and Economic Bachelor's Degree in Italy: Influence of Perceived Service Quality, Institutional Image, and Loyalty

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Abstract: Universities play a significant role in the economic development of society as they provide knowledge and skills that are essential for social sustainability. In recent years, universities shifted their focus towards student-centered education and need to reconsider their sustainable strategies to become more competitive by encouraging student co-creation behaviors. To create a unique experience, universities aim to involve students in creating and delivering their educational experiences. The purpose of this paper is to investigate how the perceived quality of educational service and the institutional image of a university influence students' value co-creation behavior, and the role of loyalty in this process. The study is based on two complementary studies conducted in an Italian public university. The first study involved 720 undergraduate students with one business management bachelor's degree who completed a questionnaire to collect primary data. The second study used six focus groups to identify which specific students' experiences and university activities stimulated co-creation behaviors. The results show that student loyalty plays an important mediating role between university image, students' quality perception, and co-creation behavior. Additionally, only three dimensions of quality, namely quality non-academy aspects, quality reputation, and quality access have an impact on students' loyalty. Therefore, only two dimensions of brand image, university brand knowledge (UK), and university brand prestige (UPR) have a direct effect on value co-creation behavior. These findings have important implications for higher education institutions (HEIs) to develop managerial strategies that increase students' co-creation behavior. The co-creation process should be considered as part of HEIs' image-building and quality policy-enhancing strategy. Despite the value co-creation approach being overlooked in studies on HEIs governance, this study highlights its potential as a strategic approach for improving service quality and university image.

Keywords: social sustainability; higher education; students' co-creation behavior; quality of educational services; institutional image; students' loyalty

1. Introduction

In recent years, higher education faced challenges due to global trends such as budgetary constraints and greater student mobility. Universities play a vital role in social development by empowering people through critical thinking and providing them with the necessary skills for a rapidly changing job market [1,2]. Education has a significant responsibility to promote independent thinking among students, as reflected in the sustainable development goals. While 40% of young people in Europe have a higher education degree, Italy has only 28.9% of students with a higher education degree in the last three years, compared to the EU average of 40.5%. Therefore, retaining students is just as important as attracting and enrolling them. Universities became more student-oriented in response to these changes, and they must rethink their sustainable strategies to encourage

student participation in creating and delivering their university experience [3–5]. In the field of service-dominant marketing, it is widely acknowledged that interactions between organizations and their customers can create and enhance the value of the service being provided [5]. The idea of co-creation is applicable in a university setting where students are active participants in the learning process and can collaborate with the institution to improve the quality of service. Students, in this context, can be seen as consumers who are likely to interact with the institution, provide feedback and suggestions, share information and experiences with others, and promote the university's image inside and outside. One of the challenges to be faced is to make the transition from the traditional paradigm to a new perspective focused on students, implying higher levels of collaboration and student engagement since the initial phase of service ideation. By involving students in the learning process, co-creation can help universities to improve the quality of their services, enhance their brand image, and attract more students. For the university, it is important to reinforce the relationship among students, teachers, staff, and other stakeholders to improve the learning experience and satisfy the student's expectations.

The study was conducted in the context of higher education (HE) in Italy, where recent changes in the university system aim to improve service quality and increase competition among universities. In the last decade, many initiatives were developed to satisfy the needs of stakeholders in general, and students in particular. However, in the last year, Italian universities experienced a 2.8% decrease in enrollment, with the worst data (-5.1%) recorded by universities in the south of Italy, which is equivalent to more than 4900 new students. Therefore, universities need to understand which factors of students' experience are crucial and the degree to which they affect students' co-creation behaviors. Therefore, the principal research questions are: What are the consequences of positive perceptions from students about the university's service quality and institutional image on loyalty and co-creation behavior? What is the role of loyalty in this process?

To address these research questions, two complementary studies were conducted. The first study involved the development of a conceptual model, which was tested using structural equation modeling. A survey based on a questionnaire administered to 720 undergraduate students from one business management program in an Italian university. Specifically, the purpose of this paper is to quantitatively explore the relationship between five dimensions of quality service (non-academic aspects, academic, reputation, access, and program issue), institutional image, loyalty, and co-creation behavior such as advocacy, suggestions for improvement, and participation in future activities.

In addition, a second study was conducted in which students of the same business management program were involved in six focus groups to investigate what are, in their university experience, the specific mechanisms or activities that can reinforce students' loyalty toward the university and promote co-creation behavior. This research fills a literature gap because no previous research on students' co-creation considered the influence of these variables.

The results of this research have practical implications for university policymakers, who should consider the co-creation process as an integral part of their strategy for building a sustainable image and enhancing quality policies.

The paper is structured as follows: First, we present the literature review and theoretical background of the research and develop the main hypotheses tested. Then, the conceptual model is presented before explaining the methodology and presenting the results of the two studies. Finally, the paper concludes with a summary of the key findings and a discussion of their implications for higher education institutions.

1.1. Students' Co-Creation Behaviors in Higher Educational Context

The concept that the customer is always a collaborator is a foundational premise of service-dominant logic (SDL) and in the contemporary value co-creation literature [6–11]. An important concept in this area is that value creation is not limited to the service provider creating value for the customer, but it is a mutual process where both parties contribute to creating value during their interaction. In the context of service-dominant logic, customers are no

longer seen as passive recipients of services, but rather as active participants who play a crucial role in co-creating the service experience. [12,13]. Prahalad and Ramaswamy [6,7] are recognized for their significant contribution to the literature on value co-creation. They argued that the experience created through co-creation becomes a critical foundation for value. Similarly, Vargo and Lusch [11,12] emphasized that the process of value co-creation happens when customers or users interact with a product or service, rather than during the production process. This implies that customer behavior, such as providing feedback to enhance the service experience, supporting service employees, and recommending the service to others, are all part of the process of customer value creation. The concept of customer co-creation behavior was conceptualized by previous research [14,15] as a multidimensional construct consisting of two main factors. The first factor is customer participation behavior, which pertains to the active involvement of customers in co-creating products or services with the company. The second factor is customer citizenship behavior, which is voluntary behavior that goes beyond what is typically expected and provides additional value to the company [14–16]. Bove et al. [14] define customer citizenship behavior as "the voluntary behaviors outside of the customer's required role for service delivery, which aim to provide help and assistance, and are conducive to effective organizational functioning". Over the past decade, research on customer co-creation behavior became a top priority in the education sector [4,5,17–20]. Universities are striving to offer unique and sustainable experiences to their students by encouraging their participation in creating and delivering their education. Students, in turn, are interested in playing an active role in their higher education institutions (HEIs) as partners. Involving students in the creation of university education can help tailor educational services to their needs and wants, thereby enhancing their satisfaction [21]. The concept of customer citizenship behavior gained increasing attention in the managerial and marketing literature [16,22] as it explains how students contribute to the success of their university and how they affect service quality perception. Extra-role behavior dimensions, such as advocacy, suggestions for improvement, and participation in future activities, were defined in managerial literature studies [23–25]. Advocacy or word of mouth refers to recommending the university to others, such as friends or family, which can positively impact the university's reputation and encourage new students to join and cooperate with the university during and after their studies [26,27]. Students' advocacy behaviors consist in promoting the university to outsiders, sharing the experience among family and friends, recruiting for the university, and supporting and defending the university. Positive word of mouth communication is an expression of a student's loyalty to the university and is highly influential in shaping a positive university reputation, promoting the institution's services, and enhancing evaluations of service quality. On the other hand, suggestions for improvement are freely shared information, opinions, ideas, or recommendations that students offer to the university's employees, which helps in the service creation process and improves the quality of service provided to students [16]. From the perspective of value co-creation, students play a critical role in sharing information with university employees to enhance the quality of the educational service. Without students' input and suggestions for improvement, employees may struggle to perform their duties effectively, resulting in a subpar value co-creation experience. Therefore, it is essential for students to actively participate in the co-creation process by sharing their ideas and feedback to help improve the overall quality of the educational service. Beaudoin [28] suggests that students act as consumers of the educational service, hence their voice plays a crucial role in university improvement and students who have strong loyalty will provide high levels of feedback to the university. "Participation in future university activities" refers to the willingness of students to take part in university-sponsored events and activities. The organization of extra and curricular activities is more important for HEIs for their public image, adding to their prestige and reputation. The extra-curricular activities generally do not involve academic credit and participation is voluntary for the students. In the context of HEI, some scholars argue that students' strong loyalty to the university influences their intention to attend future events and courses [29].

1.2. Students' Loyalty

Students' loyalty is one of the most important keys to determining which facets of the university experience are crucial to promote students' co-creation behaviors. Research suggests that student loyalty is a significant predictor of their willingness to attend future events and courses at the university [29]. According to the literature, student loyalty is typically measured after a student's time at the educational institution [30–34]. According to Webb and Jagun [27], loyalty in the higher education context can be described as the student's willingness to promote the university to others, speak positively about their experiences at the institution, and return to the university to continue their studies. Athiyaman [30] suggests that loyalty is a combination of students' willingness to speak positively about the institution and provide information to prospective students. The concept of student loyalty in higher education is multidimensional and involves both attitudinal and behavioral aspects, according to various definitions in the literature [35,36]. The attitudinal aspect involves emotional attachment, trust, and willingness to support the alma mater through actions such as helping graduates and recommending the university to others through word of mouth [37]. On the other hand, the behavioral aspect of student loyalty is related to the intention of students to continue their studies in the same university where they were previously enrolled [35,36]. Both behavioral and attitudinal loyalties are important in understanding long-term relationships between students and their universities. It should be noted that student loyalty extends beyond the duration of their enrollment in the university and can continue even after their graduation [38,39].

In recent years, the importance of students' loyalty increased for higher education institutions. This is due to the global competition among these institutions, which highlights the need to retain matriculated students as well as attract new ones. Therefore, institutions need to focus on understanding and promoting student loyalty, as it is positively related to attracting and retaining students [35,37,40,41]. Strategic management should prioritize student retention and loyalty to ensure long-term successful performance for public institutions.

Furthermore, students who are loyal to their HEIs showed an interest in taking an active and participatory role in collaborating with their universities. Even after graduation, they continue to co-create value through word of mouth promotion to other prospective, current, or former students and some form of cooperation. Collaborative participation is an important aspect of co-creation, which involves the cooperation of all stakeholders [6,7,42]. Loyal graduates can continue to support their academic institutions, whether it is financially, through word of mouth, or some form of cooperation. By engaging in continuous activities, graduates can interact and collaborate with the university, thus enhancing its brand image and helping it improve its services in the long term [17]. The above discussion frames the following hypothesis:

H1: *Students' loyalty has a positive impact on advocacy intentions.*

H2: *Students' loyalty has a positive impact on suggestions for improvement.*

H3: *Students' loyalty has a positive impact on participation in future university activities.*

1.3. Perceived Service Quality

Service quality can be defined as the difference between what students expect to receive and their perception of the service provided (i.e., their educational experience). Perceived service quality by students is an important factor influencing their decision to choose an educational institution. Therefore, scholars recognized the significance of perceived service quality in higher education for building and maintaining relationships with students [43–48]. Guaranteeing and improving the quality of higher education became a major concern in the international higher education sector [49].

Despite multidimensional aspects of service quality, the importance given by students to different aspects of service quality is not the same and some aspects are more important than others. There are several factors that influence the specific perception of service quality dimensions, such as tangibles, reliability, responsiveness, assurance, and empathy [50]. A conceptual model of service quality in educational settings was developed by Abdullah [51,52]. Abdullah identified five dimensions of service quality in education, which are non-academic aspects, academic, reputation, access, and program issue. The constructs in the HedPERF scale mainly focus on the interactions between students and university personnel, which highlights the significance of the human dimension in service relationships within higher education institutions.

Based on previous studies, students' perception of service quality is highly associated with their loyalty to the institution [32,37,46,48,53,54]. Therefore, higher education institutions, in order to ensure long term student loyalty, have to understand and satisfy students' needs and preference.

Various studies [3,55–60] pointed out different dimensions of service quality that mostly influence the students' loyalty and co-creation behaviors. The finding of these studies reveals that the quality of teaching, program quality, reputation, non-academic aspects such as employees' knowledge and courtesy, and quick and timely response of the employees have a strong significant effect on students' loyalty. Several other examples of research [59,60] in the context of higher education show that the quality of teaching faculty and staff is crucial in defining service quality in education. For example, the behaviors and attitudes of university contact employees determine the students' perception of service quality. Therefore, the performance of employees during service transactions plays a vital role in determining the perceived service quality (PSQ) in education. The above discussion frames the following hypothesis:

H4: *University's service quality perception has a positive effect on loyalty and co-creation behaviors.*

1.4. Institutional Image

In educational service management, university image is a strategic managerial issue that affects the HEI's ability to recruit students and to retain motivated students [43,61–67]. According to Barich and Kotler [67], perceived institutional image is defined as "a personal impression of an organization, which is formed immediately based on their knowledge, experiences, emotions, feelings, and beliefs". The definition shows that image is an important component of individual behavior because it is the sum of beliefs, ideas, attitudes, and impressions that a person holds regarding an object, person or organization. It represents how most people express their feelings, creating emotional attachment and loyalty. A good number of research in the field of public relations and management [62,68] point out that corporate image has a great influence, as it attracts both present and potential publics, and develops a loyalty relationship. Similarly, in the higher educational context, the image could be defined as all the sensations and impressions that a student feels toward a particular university, and it is used as a positioning instrument to influence students' choice of a higher education institution [3,17,69,70]. Consequently, the university's image is important because it informs how students feel about the institution. This feeling is formed through tangible objects, such as infrastructure, teaching quality and tuition fees [71], and symbolic and affective qualities, such as fun, excitement, and passion [72]. In a study conducted by Sung and Yang [61], university image attractiveness was measured through three variables: university personality, external prestige, and reputation. University personality is the set of human characteristics associated with the university, such as friendly, stable, practical, or warm, which are developed based on students' direct or indirect experiences with the university. The authors show that when students evaluate the university personality as congruent with their self-concept, they are more likely to develop supportive behaviors towards their university. External prestige is commonly viewed as an individual-level variable since it is based on individual perceptions of an organization's prestige, which may
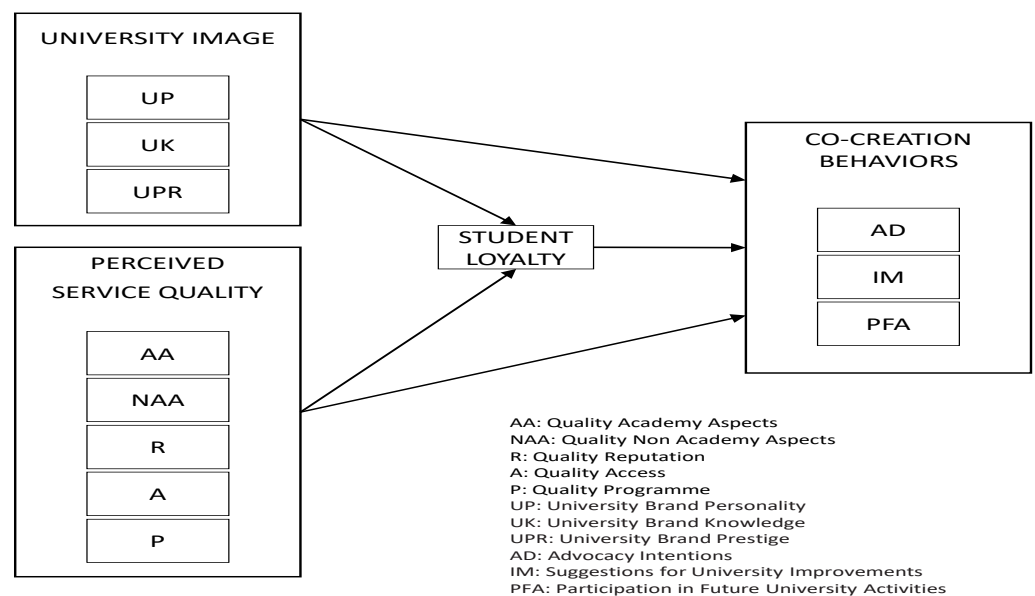
vary depending on the individual's exposure to information about the organization. As a result, students from the same institution may have different perceptions of its external prestige. Higher education institutions need to evaluate the quality of their programs and consider rankings and ratings generated by third parties to attract and retain potential students. University reputation refers to the assessment made by multiple stakeholders about the university's ability to meet its expectations over time. If students perceive their university to have a unique culture, strategy, structure, or other distinctive characteristics, they are more likely to have a higher level of perceived institutional image, which in turn can impact their loyalty and supportive behaviors [31,42].

The above discussion frames the following hypothesis:

H5: *Students' perception of the university image has a positive effect on students' loyalty and co-creation behaviors.*

The hypothesized relationships between the key variables are depicted in our model shown in Figure 1.

AA: Quality Academy Aspects
NAA: Quality Non Academy Aspects
R: Quality Reputation
A: Quality Access
P: Quality Programme
UP: University Brand Personality
UK: University Brand Knowledge
UPR: University Brand Prestige
AD: Advocacy Intentions
IM: Suggestions for University Improvements
PFA: Participation in Future University Activities

Figure 1. Path diagram of the hypothesized model.

2. Material and Methods

The purpose of this paper is to investigate how the perceived quality of educational service and the institutional image of a university influence students' value co-creation behavior and the role of loyalty in this process. In addition, the study wants to investigate what are, in students' university experience, the specific mechanisms or activities that can reinforce their loyalty toward the university and to promote co-creation behavior. To address these research questions, two complementary studies were conducted. In a first study, we administered a questionnaire to collect primary data. Initially, for the first study, a questionnaire was distributed to students anonymously in a supervised classroom setting for one month. Initially, we piloted the questionnaire on 20 students before conducting the main survey to ensure readability and clarity. This pilot was used for us to see if the questionnaire was written understandably and to understand what difficulties there might be in filling it out. The instructor was instructed not to reveal the research topic to the students to avoid biased responses. Students were informed that their participation in the questionnaire was voluntary and were assured of anonymity. In the second study, six focus groups, each with 8 undergraduate business students of the same business management program, were conducted in order to explore which specific students' experiences and university activities stimulated co-creation behaviors. Previous studies utilized focus

groups as a part of a triangulation strategy where the results from each group were used to validate the findings obtained from other methods. Focus groups are useful tools for capturing students' viewpoints on the role of loyalty in the co-creation process [73–76]. The participants, who have certain characteristics in common, share their perspectives in a discussion in which a moderator facilitates the exchange of opinions, feelings, experiences, and attitudes toward a topic or phenomenon. No previous studies exploited focus groups as a research method to investigate the mechanisms through which loyalty could be ensure, reinforce, and sustain across time in order to promote students co-creation behaviors.

2.1. Study 1 (Questionnaire)

2.1.1. Participants

Data were collected from undergraduate students of a business and economic bachelor's degree at an Italian university. We distributed 800 questionnaires in random classrooms between the third and the final semesters of their studies because those students had a high degree of experience in the service offered by the university. In total, 90 percent of questionnaires were returned, resulting in 720 usable questionnaires. The data analysis was conducted only on those participants who had fully answered the survey. Of the 720 respondents, 310 (43.1%) were male and 410 (56.9%) were female; the average age was 23 years. Our gender split is fairly representative of enrolments at the Italian public higher education institutions. For example, at the Italian university, females account for 55% of the student population (MIUR, 2021).

2.1.2. Measures

Our measurements were adapted from existing scales validated in the literature to measure the four constructs: perceived service quality, university brand image, students' loyalty, and co-creation behaviors. Items were answered using a five-point Likert scale, which ranged from 1 = strongly disagree to 5 = strongly agree.

Perceived Service Quality

The perceived service quality was measured using the higher education performance (HEdPERF) scale from Abdullah (2006) [51,52]. This scale includes five dimensions (see Table 1): non-academic aspect (QNAA), academic aspect (AA), reputation (QR), access (QR), and program issue (QPI).

Table 1. Higher education performance (HEdPERF) dimensions and items.

Dimensions	Definition	No Items	Example of Items
Non-academic aspects	Quality service does not include the academic aspect, but can significantly depend on the provision of non-academic support of the service delivery. This dimension contains variables such as adequate space in the university building for the number of students enrolled; a nondiscrimination policy followed by all faculty and staff members; provision of extra-curricular activities; friendliness of the administrative staff; and recreational facilities.	12	The institution's staff provides individual attention.
Academic aspect	This dimension refers to the duties and responsibilities of the academics. The main duty of academic staff is to transmit knowledge through research; provide more attention to students' needs; sufficient resources to assist with teaching and learning; and the feedback that teachers give to students about their progress.	9	The teaching staff is highly qualified and experienced in its respective field or knowledge.

Table 1. *Cont.*

Dimensions	Definition	No Items	Example of Items
Reputation	This dimension denotes the image of the institution perceived by the students compared to others in the area.	9	The institution location is ideal, and the layout and appearance of campuses are excellent.
Access	This dimension is related to the easy of contact, approachability, and availability of items.	7	The institution has a standardized and simple procedure for providing services.
Program issue	The dimension program issue concentrates on the importance of specialization offered by the HEI.	2	The institution provides programs with flexible structures and study plans.

University Brand Image

The construct analyze how students perceived institutional image, which is formed on the basis of their knowledge, experiences, emotions, feelings, and beliefs. It was measured through three dimensions (Table 2): university personality (UP), which was measured with items selected from [61], university knowledge (UK), which was measured using four items selected from [77], and university external prestige (UEP), which was measured with three items selected from the [78] organizational prestige scale.

Table 2. University brand image dimensions and items.

Dimensions	Definitions	No Items	Items
University personality (UP)	It is the set of human characteristics associated with the university, which are developed based on students' direct or indirect experiences with the university.	4	This university is: friendly, stable, practical, and warm.
University knowledge (UK)	It is the students' perception of how the knowledgeable he or she has about the communications, values, and benefits associated with the university.	4	I am aware of the [university] goals. I have sound knowledge about the values represented by the [university]. I understand how students can benefit from the [university]. I know how [university] differentiates us from the competitors.
University external prestige	External prestige is commonly viewed as an individual-level variable since it is based on individual perceptions of an organization's prestige, which may vary depending on the individual's exposure to information about the organization.	3	The [university] maintains a high standard of academic excellence. It is considered prestigious to be an alumnus of the [university]. [University] has a rich history.

Students' Loyalty

The variable of students' loyalty was measured with six items (Table 3) selected from [37].

Table 3. Dimensions and items of students' loyalty.

	Definition	No Items	Items
Students' loyalty	Student loyalty refers to the loyalty of a student during and after his or her time at the university.	6	I would recommend my course to someone else. I would recommend my university to someone else. I am very interested in keeping in touch with "my faculty". If I was faced with the same choice again, I would still choose the same course. If I was faced with the same choice again, I would still choose the same university. I would become a member of any alumni organizations at my old university or faculty.

Co-Creation Behaviors

Co-creation construct analyzes how students were involved in the different administrative or academic activities, and it was measured through three dimensions adapted from [29] (Table 4): advocacy intentions (AD) refers to positively speaking about the university, university improvements (IM) refers to providing the university with ideas and suggestions that can develop improvements, and participation in future activities (PFA) is related to the participation of students in events and in other university-sponsored activities.

Table 4. Co-creation dimensions and items.

Dimensions	No Items	Items
Suggestions for university improvement	4	I would make suggestions to [university] as to how it can be improved. I would let the [university] know of ways that could make it better serve my needs. I would share my opinions with my [university] if I felt they might be of benefit. I would contribute ideas to my [university] that could help it improve service.
Advocacy intention	4	I will recommend [university] to others. I will recommend [university] to those who ask or seek my advice. I will recommend others on the [university] social media (e.g., Facebook or Twitter). I will post positive comments about the [university] on my social media (e.g., Facebook).
Participation in future university activities	2	I would attend future events being sponsored by my [university]. I would attend future functions held by my [university].

2.1.3. Data Analysis

For each variable, we calculated means and standard deviations. The factorial structure of each scale was already tested in previous studies [37,60,61,79]. Scale reliability was tested with Cronbach's alpha. The associations among all the variables were verified through Pearson's correlation coefficient. Analysis of variance (ANOVA) by gender, age, and nationality was conducted for the variables under study. SPSS 24 was used for these analyses. Path analysis was conducted using structural equation models (SEM) for testing our hypothesized model, with the maximum likelihood solution method, by the structural equations program (EQS 6.3; [80,81]). Concerning fit indexes, the comparative fit index (CFI; [80,81]) and the non-normed fit index (NNFI; [82,83]) were considered within 0.90 and 1.00, respectively. Additionally, $\chi 2$ values were observed including those of degrees of freedom and *p*-value [79,80]. With regards to root mean square error of approximation (RMSEA), values equal to or less than 0.08 were considered acceptable [79,80]. Furthermore, values within 0.90 and 1.00 of the goodness of fit index (GFI) and within 0.85 and 1.00 for

the adjusted goodness of fit index (AGFI) [79,80] were considered acceptable. The Sobel test was used in the analysis to verify the mediator role of variables [84].

2.1.4. Findings

Table 5 shows the descriptive statistics and the reliability scales. The reliability indices are good, ranging from 0.71 to 0.90.

Table 5. Descriptive statistics.

Dimensions	Mean	St.Dev.	Cronbach's Alpha
University Brand Personality	2.80	0.78	0.74
University Brand Knowledge	2.62	0.84	0.73
University Brand Prestige	2.84	0.82	0.76
Advocacy Intentions	2.93	0.98	0.83
Suggestions for University Improvements	2.30	0.89	0.87
Participation in Future University Activities	2.44	0.99	0.84
Student Loyalty	2.60	0.88	0.82
HedPERF Academy Aspects	2.70	0.71	0.86
HedPERF Non Academy Aspects	2.94	0.77	0.90
HedPERF Reputation	3.02	0.65	0.73
HedPERF Access	2.57	0.62	0.76
HedPERF Programme	2.85	0.86	0.71

An overview of the relationships between variables in the sample of students is shown in Table 6, which shows Pearson's correlations. The variables examined are almost positively correlated. In particular, student loyalty is positively correlated ($0.14 < r < 0.72$.) with all the variables concerning university brand image, perceived quality, and co-creation behavior.

Table 6. Pearson's correlation.

		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1.		1										
2.	University Brand Personality	0.48 ***	1									
3.	University Brand Knowledge	0.51 ***	0.40 ***	1								
4.	University Brand Prestige	0.55 ***	0.48 ***	0.62 ***	1							
5.	Advocacy Intentions	0.03	0.20 ***	−0.08	0.06	1						
6.	Suggestions for University Improvements	0.33 ***	0.26 ***	0.31 ***	0.35 ***	0.26 ***	1					
7.	Participation in Future University Activities	0.55 ***	0.46 ***	0.59 ***	0.72 ***	0.14 *	0.39 ***	1				
8.	Student Loyalty	0.45 ***	0.31 ***	0.37 ***	0.45 ***	0.08	0.29 ***	0.51 ***	1			
9.	HedPERF Academy Aspects	0.41 ***	0.30 ***	0.32 ***	0.40 ***	0.03	0.27 ***	0.41 ***	0.60 ***	1		
10.	HedPERF Non Academy Aspects	0.52 ***	0.50 ***	0.54 ***	0.57 ***	0.05	0.20 ***	0.54 ***	0.48 ***	0.47 ***	1	
11.	HedPERF Reputation	0.41 ***	0.42 ***	0.34 ***	0.42 ***	0.19 **	0.27 ***	0.46 ***	0.50 ***	0.50 ***	0.54 ***	1
12.	HedPERF Access	0.35 ***	0.30 ***	0.33 ***	0.33 ***	0.01	0.16 *	0.38 ***	0.30 ***	0.26 ***	0.44 ***	0.43 ***

* = $p < 0.05$; ** = $p < 0.01$; *** = $p < 0.001$.

To establish the overall fit of our proposed model, and to test the hypothesized relationships within the research model, we ran the full structural equation modeling (SEM). The results of the SEM are shown in Table 7 and in Figure 2. The indexes show the validity of the empirical model. The results indicate that the data have a good fit with the proposed model and show that four of our six hypotheses are supported.

Table 7. Fit index of the empirical model.

| Fit Index	χ^2 (df)	p	CFI	RMSEA	NFI	NNFI	GFI	AGFI
Values	104.48 (37)	0.01	0.98	0.07	0.97	0.95	0.95	0.89
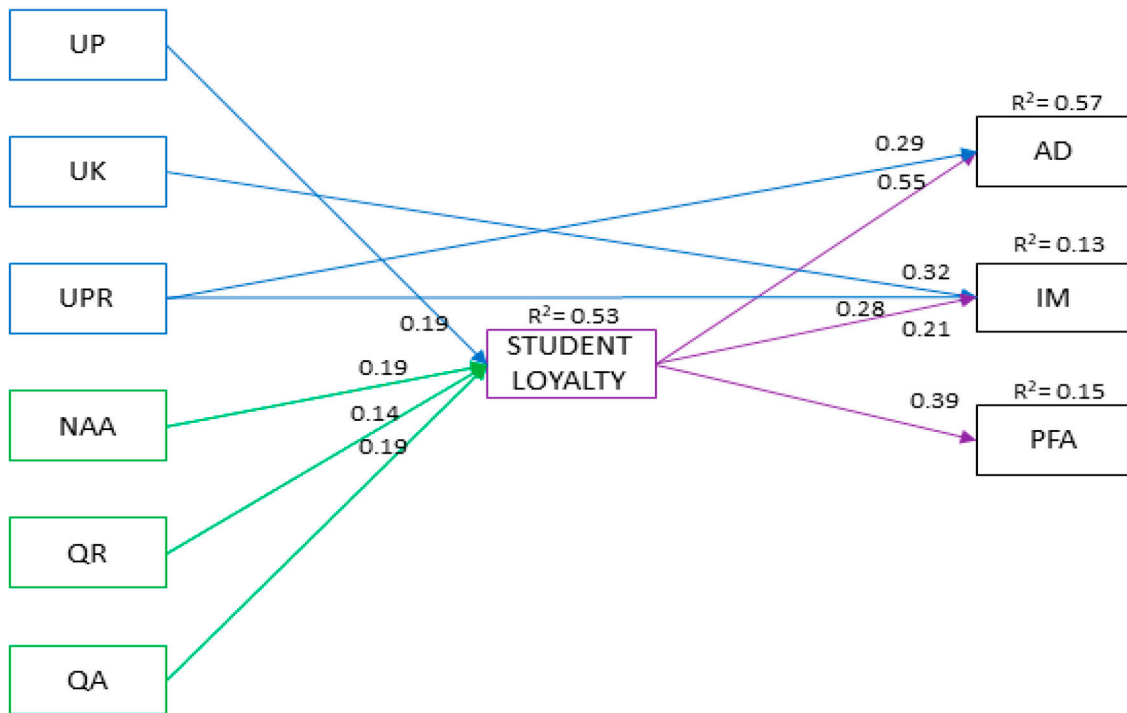
NAA: Quality Non Academy Aspects; QR: Quality Reputation; QA: quality Access; UP: University Brand Personality; UK: University Brand Knowledge; UPR: University Brand Prestige; AD: Advocacy Intentions; IM: Suggestions for University Improvements; PFA: Participation in Future University Activities.

Figure 2. Path diagram of the empirical model.

Quality non-academy aspect, reputation, access, and prestige are significant predictors of students' loyalty. It is interesting to note that university brand knowledge (UK) and university brand prestige (UPR) have a direct effect on value co-creation behavior. In particular, UK influences suggestions for university improvement (IM), while UPR influences both advocacy intentions (AD) and suggestions for university improvements (IM).

Rather more interesting is the strong relationship in our model between student loyalty and value co-creation behavior. From the analysis of the path diagram and corresponding regression coefficients (Figure 2), we obtain some significant data to understand the mediating role of student loyalty. To test this mediating role, the Sobel test was conducted (see Figure 3 and Table 8).

The analysis showed that student loyalty has an important mediator role between university personality, quality non-academy aspects, quality reputation, quality access, and some value co-creation behavior.
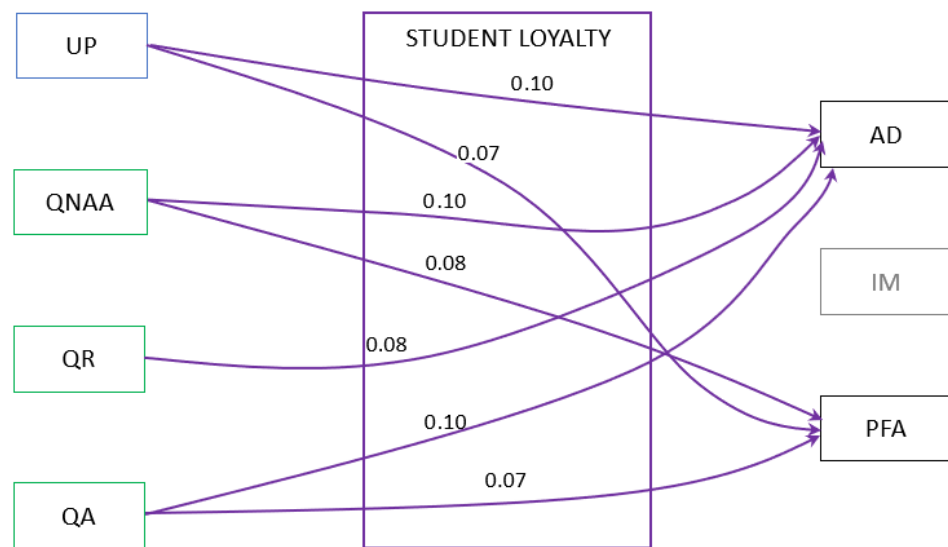
Figure 3. β values of the student loyalty mediations.

Table 8. Student loyalty's mediations.

Variables	β	z	p
UP → AD	0.10	9.71	<0.01
UP → IM			ns
UP → PFA	0.07	4.30	<0.01
QNAA → AD	0.10	6.96	<0.01
QNAA → IM			ns
QNAA → PFA	0.07	4.50	<0.01
QR → AD	0.08	6.91	<0.01
QR → IM			ns
QR → PFA			ns
QA → AD	0.10	6.46	<0.01
QA → IM			ns
QA → PFA	0.07	3.85	<0.01

ns = not significant.

2.2. Study 2 (Focus Groups)

The results of Study 1 show that student loyalty has an important mediator role between university personality, quality non-academy aspects, quality reputation, quality access, and some value co-creation behavior. With the second study, we explored which specific mechanisms or activities in their university experience can reinforce students' loyalty toward the university and promote co-creation behavior. The focus group method was chosen as the most appropriate data collection because it encourages interaction among participants, and enhances the richness of the data. This approach allows for developing an understanding about why people feel the way they do [74–76]. Six focus groups, each with 8 undergraduate business students of the same degree program, were organized. The students were recruited on a voluntary basis. No first-year students were included because of their limited experience as university students. A total of 43 students participated: 17 men (39.5%) and 26 women (60.5%). Each focus group lasted 90 min and was conducted by a researcher and an observer. The discussions were kept confidential and recorded through written notes and a tape recorder. According to recommended

focus group methodology [73–76], a semi-structured question guide was developed by the research team. After a brief introduction, the researcher outlined the objectives and stimulated the debate about interest so that everyone took part in the conversation. Three independent researchers were asked to analyze the transcripts and provided a classification of the representations that were substantially in line with what was observed by the academics and observers. Each information unit was classified into thematic categories by two independent researchers. Once the relevant thematics were identified, participants were asked to organize them based on their perceived importance.

2.2.1. Results

The analysis of the conversations identified three thematic groups that explain the principal drivers of students' loyalty and co-creation behavior. The drivers that emerged were dialogue and trust, quality of academic and non-academic aspects, as well as image and reputation.

Dialogue and Trust

During the discussion, it emerged that there is an unwillingness to participate in university policies because they believe that student opinion is not important, and the university staff does not have trust towards students. Therefore, they delegate to the representatives the task of providing suggestions and proposals for improvement. In their opinion, the decision-makers do not give importance to dialogue with students. Typical expression:

"We students aren't account to improve the university quality".

"For the decision-makers, the students have not skills and information appropriate to give suggestions. Their opinion has been taken as such, as an opinion".

"At the moment, our HEI provides for the administration by all students of the teaching evaluation forms. The problem is that the students don't know how much their suggestions and criticism are considered for quality improvement. Students have an interest in adopting active and participatory roles that allow them to interact and work collaboratively with teachers and institutions".

The students interviewed complained that it is difficult to adopt co-creation behaviors if there is no willingness among the actors to work together for improved service quality and university image. In their opinion, co-creation can emerge if relationships are developed between actors based on trust, dialogue, and information sharing. To meet the students' needs and expectations and discover the quality gaps, it is essential to have an ongoing interaction based on open dialogue; in particular:

"The collaboration needs the availability by the university to share information, resources, decisions, and to operate transparently so as to make students understand that there is an interest in building a relationship based on mutual trust".

"In my opinion, trust is the most important driver in developing a strong relationship between students and university".

Quality of Academic and Non-Academic Aspects

In the students' opinion, there are different factors that affect positive word of mouth: higher service quality (for example, university campus, university internship, and financial resources, etc.), a wide variety of choices about specialization offered by the HEI, and a higher quality of academic and staff members.
Typical expression:

"I would recommend it because the professors are capable, and the programs are interesting. Moreover, my university is one of the largest institutions in the region of Sardinia due to its international policy and studies, and its agreements with prestigious universities in Europe and the world".

"A very positive aspect is the variety of teachings in the degree program. There are excellent student facilities including halls of residence, libraries, sports facilities, and museum".

"University taxes are determined based on profit and income".

"The courtesy of the university staff was an important element for me. The university staff provided all the information to improve the university experience".

The students expressed that they are motivated to engage in activities that the university organize outside of their classroom learning experience. They may include sports, social, and cultural activities. The main reason for students to participate in extra-curricular activities is that they are expected to enrich their experience and to increase their employability.

Typical expression:

"I'm proud to be part of my university because it offers a unique and memorable student experience. By engaging in continuous activities, we can interact and collaborate with the university and thus enhance the university's brand image. Students' participation in the extra-curricular activities demonstrates their brand commitment".

Image and Reputation

Other important drivers of students' loyalty and co-creation behavior for the focus group participants are the image and reputation that the university has in the territory. During the discussion, the participants spoke of the relevant relationship with the territory and stakeholders. The university has an important third mission.

Typical expression:

"I have a positive image of my university because, in recent years, Universality's public engagement policies have increased enormously. My department is committed to communicating and spreading knowledge through direct relationships with territory and stakeholders".

"Differents are the initiative organized by my university, such as public events (inauguration ceremony of the academic year, researchers' night), concerts, health safety initiatives, urban development, and enhancement of the territory".

"I'm very proud of my university because it has a century-old history. It was founded in the 1620s by Filippo III of Spain. Today it is in the top 600 universities of the world".

"My decision to enroll in my university is influenced by its positive brand image. In the last years, the website of the university emphasized its competencies. For example, the institution strongly communicates the competence of its research staff and the achievement of international results".

3. Discussion

The purpose of this paper is to investigate how the perceived quality of educational service and the institutional image of a university influence students' value co-creation behavior, and the role of loyalty in this process. In addition, the study wants to investigate what are, in students' university experience, the specific mechanisms or activities that can reinforce their loyalty toward the university and to promote co-creation behavior.

Taking into consideration the principal objective of the research, the positive connection existing between loyalty and co-creation behaviors, institutional image, and service quality perception on loyalty and co-creation behavior in the undergraduate context were verified. Overall, the findings of this study confirm the results of previous research and reinforce the importance of service quality perception, institutional image, and loyalty in co-creation behaviors.

In line with Hypothesis 1, 2, and 3, the results emphasize that loyalty plays an important role in the intention of co-creation by students, such as advocacy, participation

in future university activities, and suggestions for university improvement. The study's results suggest that highly loyal students are more likely to engage in extra-role behaviors that promote or benefit the university. In this way, students play a crucial role in co-creating the value and quality of the university brand, and they serve as a channel for sharing the university's image with other stakeholders. Previous studies found a positive correlation between attitudinal loyalty and co-creation [17,37,85], increased word of mouth, advocacy, and suggestions for service improvement. Thus, potential students' perception of a university may be shaped by actual students' perception, as positive word of mouth is a significant indicator of customer loyalty and contributes to promoting the university's services and higher service quality evaluations. Therefore, our findings support the mediating relationship that student loyalty has between university image and some dimensions of students' quality perception and co-creation behavior. The study's findings align with prior research [21,37,75,86] indicating that students' supportive attitudes toward the university are heavily influenced by factors such as prestige and perceived quality. Students' loyalty to their institution appears to stem from their perception of it as prestigious and reputable within their local community. Consistent with similar findings [65,83–87], and in line with Hypothesis 4 and 5, the results of this study provide evidence of the importance of institutional image and service quality perception to student loyalty. However, it is important to highlight that only three dimensions of quality affect students' loyalty, such as quality non-academy aspects, quality reputation, and quality access. Furthermore, the study reveals that university brand knowledge (UK) and university brand prestige (UPR) have a direct effect on students' co-creation behavior. More importantly, the prestige influences directly the advocacy intentions (AD) and suggestions for university improvements (IM). The findings from Study 2 are linked to those of Study 1. Indeed, from focus group discussion, it comes to light that dialogue and trust, quality of the academic and non-academic, image, and reputation have a significant influence on students' loyalty and co-creation behaviors. In the university context, students' perception of a dialogue based on trust is derived from their experience with the staff, academics, and administrators when delivering promises. Students can provide feedback, work collaboratively with staff and other stakeholders, and work as co-creators in the curriculum design, as well as participate in policy and strategy development. In this way, students have a positive perception of the university image and promote a positive attitude towards it, which in turn provides the motivation underlying students' co-creation behavior. Therefore, they have the desire to remain at their university, even after completing the period of study. Consistent with similar findings [17,32,37,48,49,73,88] the level of service quality and university image and reputation are other dimensions that contribute to reinforcing loyalty and co-creation behaviors. When the quality of service is high, students are likely to generate positive recommendations about their university. As some studies point out [89–92], when students are more satisfied with their academic experience, they tend to transmit a positive image of the university and are led to contribute to the improvement of the service offered.

The results of our study have both theoretical and practical implications for higher education institutions. Similar to other organizations, the new paradigm of co-creation presents an opportunity for HEIs to differentiate themselves from competitors and to be more attractive. Consequently, it becomes more important not only to understand, manage, and leverage a strong brand image, but also to improve the service quality [89] through a continuous dialogue with the students. Students' supportive behaviors, such as advocacy, participation in future university activities, and suggestions for university improvement, may contribute to strengthening the university's brand image and improving the quality of services. Dialogue is an interactive communication necessary to co-create value with students and leads to sustainable competitive advantage. Students not only need to know what happens during their education process, but also must want to collaborate and take part in the system. When students are involved in different activities developed by institutions, they are engaged to become protagonists within the university processes in which they are immersed. The implication of these findings suggests the need for

the university to rethink how it interacts with students to make them involved in the co-creation process [15]. In practice, this means developing a new and innovative approach from the university, incorporating in institutional and departmental strategies the value of the co-creation, and communicating the importance of student engagement in all levels. To instill a culture of student co-creation, a university may consider the following activities: students' co-creation strategies that detail how the university will involve students in the decision-making process; a partnership agreement between the student representative body and university detailing how they will work together in decision-making and the quality assurance. In addition, in order to ensure that students are engaged in the development of quality processes and procedures, the university need to have equal student representation in the relevant decision-making committees at all levels, including senior committees and faculty or department level. At the University of Edimburgh, the staff works in partnership with the Edimburgh University Students' Association to ensure that the students are central to governance, decision-making, quality assurance, and enhancement, providing opportunities for them to become active participants in the co-creation process. For example, it is more important to engage students in some units, such as the Joint Commission, whose goal is to carry out continuous monitoring activities of educational offerings, teaching quality, as well as providing student service activities by professors and researchers. In this way, the students perceive that not only their opinions are important to improve the quality of the service, but also that knowledge must be co-created among the different actors involved.

To ensure effective student collaboration and participation, and to receive feedback on their experience, it is necessary to have a communication system that encourages an open dialog, giving a voice to the students in different processes. It is through dialogue that it is possible to understand if the service meets students' expectations. In this way, the information exchange can help HEIs to understand clearly what exactly students want, and thus it is essential for co-created services. In this perspective, universities have to encourage dialogue through engagement platforms [91,92] where the students can interact and share their experiences in a very informal and easy way. For example, universities, through social media or blogs, can encourage student participation in improvement processes, such as program and curriculum design, and social projects related to the community, services, and activities. In addition, university institutions should inform students about the student-proposed improvement actions that were implemented and the results achieved. Some positive results of these interactions are that students can contribute to process improvement through participation in the service life cycle from the early stages.

4. Conclusions

Universities are widely recognized as key contributors to economic development due to their role in producing and disseminating knowledge and skills that are essential for sustainable growth. One of the primary ways in which universities contribute to regional innovation is by educating students and preparing them for future professional roles. Through their teaching activities, universities provide not only the necessary training for high-level jobs, but also the personal development that is crucial for success in any field. For this reason, in recent years, student retention became as important as student recruitment for universities, and improving students' perceptions of the services they receive became a strategic priority for enhancing competitiveness. To achieve this goal, universities are increasingly involving students in the co-creation and delivery of their educational experience [93]. The participation of university stakeholders, particularly students, is crucial in the process of value co-creation, and is viewed as a potential source of competitive advantage for higher education institutions (HEIs) to improve their offerings. Researchers pointed out that the concept of co-creation is a unique competitive strategy for education [89,90]. They suggest that universities need to shift their perspective from serving education to students to co-creating it with them by actively involving them in the creation of the education service.

The use of both a questionnaire and focus group methodologies in this study provided a more comprehensive understanding of the factors influencing students' co-creation behavior. The questionnaire allowed for the measurement of variables such as university image, quality service perception, and students' loyalty, while the focus group discussions provided insight into the specific mechanisms or activities in their university experience can reinforce students' loyalty toward the university and promote co-creation behavior. The consistency between the findings from the two methods further strengthens the validity of the study's results.

Overall, this study's contribution to the literature is significant as it empirically demonstrates the positive effects of university image, quality service perception, and students' loyalty on co-creation behavior. This highlights the importance for universities to focus on building and maintaining a positive image, delivering high-quality services, and fostering a sense of loyalty among their students to encourage their active participation in value co-creation process. In particular, the study shows that the level of student's engagement in the university activities will vary depending on the context and aspect of the student's experience. For them, it is important to build a relationship based on dialogue, trust, and mutual respect between students and academic and non-academic staff. Therefore, as previous studies examined, an online platform represent a useful tool for participating students in co-creation activities [94]. Through these platforms, the students are involved in a dialogue with academic and non-academic staff, and work together to improve the student experience and to operate as partners. Because value co-creation is a process whereby students' resources are integrated with organizational resources, the online platform encourages exchange and the interactions that can lead to better practice and innovation [6,7].

This research has limitations, as the data were only collected from a single business management course at an Italian public university. Therefore, the findings may only be applicable to this specific institution. To understand the impact of other factors, such as national culture, future studies should be conducted in multiple institutions outside of Italy. Furthermore, the results may differ for graduate and postgraduate students since this study only focused on undergraduate students. Additional research could be carried out in various student categories and settings.

References

1. Raza, H.; Ali, A.; Rafiq, N.; Xing, L.; Asif, T.; Jing, C. Comparison of Higher Education in Pakistan and China: A Sustainable Development in Student's Perspective. *Sustainability* **2023**, *15*, 4327. [CrossRef]
2. Bao, C.; Li, Y.; Zhao, X. The Influence of Social Capital and Intergenerational Mobility on University Students' Sustainable Development in China. *Sustainability* **2023**, *15*, 6118. [CrossRef]
3. Masserini, L.; Bini, M.; Pratesi, M. Do Quality of Services and Institutional Image Impact Students' Satisfaction and Loyalty in Higher Education? *Soc. Indic. Res.* **2019**, *146*, 91–115. [CrossRef]
4. Faham, E.; Rezvanfar, A.; Mohammadi, S.H.M.; Nohooji, M.R. Using System Dynamics to Develop Education for Sustainable Development in Higher Education with the Emphasis on the Sustainability Competencies of Students. *Technol. Forecast. Soc. Change* **2017**, *123*, 307–326. [CrossRef]
5. Yu, Q.; Asaad, Y.; Yen, D.A.; Gupta, S. IMO and Internal Branding Outcomes: An Employee Perspective in UK HE. *Stud. High. Educ.* **2018**, *43*, 37–56. [CrossRef]

6. Prahalad, C.K.; Ramaswamy, V. Co-creation Experiences: The Next Practice in Value Creation. *J. Interact. Mark.* **2004**, *18*, 5–14. [CrossRef]
7. Prahalad, C.K.; Ramaswamy, V. *The Future of Competition: Co-creating Unique Value with Customers*; Harvard Business Press: Boston, MA, USA, 2004. [CrossRef]
8. Grönroos, C. Service Logic Revisited: Who Creates Value? And Who Co-creates? *Eur. Bus. Rev.* **2008**, *20*, 298–314. [CrossRef]
9. Payne, A.F.; Storbacka, K.; Frow, P. Managing the Co-creation of Value. *J. Acad. Mark. Sci.* **2008**, *36*, 83–96. [CrossRef]
10. Ramaswamy, V.; Gouillart, F.J. *The Power of Co-Creation: Build It with Them to Boost Growth, Productivity, and Profits*; Simon and Schuster: New York, NY, USA, 2010; ISBN 978-1439181041.
11. Vargo, S.L.; Lusch, R.F. Evolving to a New Dominant Logic for Marketing. In *The Service-Dominant Logic of Marketing*; Routledge: New York, NY, USA, 2014; pp. 21–46. [CrossRef]
12. Vargo, S.L.; Lusch, R.F. Evolving to a New Dominant Logic for Marketing. *J. Mark.* **2004**, *68*, 1–17. [CrossRef]
13. Lusch, R.F.; Vargo, S.L.; O'brien, M. Competing through Service: Insights from Service-Dominant Logic. *J. Retail.* **2007**, *83*, 5–18. [CrossRef]
14. Bove, L.L.; Pervan, S.J.; Beatty, S.E.; Shiu, E. Service Worker Role in Encouraging Customer Organizational Citizenship Behaviors. *J. Bus. Res.* **2009**, *62*, 698–705. [CrossRef]
15. Yi, Y.; Gong, T. Customer Value Co-Creation Behavior: Scale Development and Validation. *J. Bus. Res.* **2013**, *66*, 1279–1284. [CrossRef]
16. Groth, M. Customers as Good Soldiers: Examining Citizenship Behaviors in Internet Service Delivers. *J. Manag.* **2005**, *31*, 7–27. [CrossRef]
17. Foroudi, P.; Yu, Q.; Gupta, S.; Foroudi, M.M. Enhancing University Brand Image and Reputation through Customer Value Co-Creation Behaviour. *Technol. Forecast. Soc. Change* **2019**, *138*, 218–227. [CrossRef]
18. Dollinger, M.; Lodge, J.; Coates, H. Co-Creation in Higher Education: Towards a Conceptual Model. *J. Mark. High. Educ.* **2018**, *28*, 210–231. [CrossRef]
19. Chemi, T.; Krogh, L. *Co-Creation in Higher Education: Students and Educators Preparing Creatively and Collaboratively to the Challenge of the Future*; Springer: Cham, Switzerland, 2017. [CrossRef]
20. Dollinger, M.; Lodge, J. Student-Staff Co-Creation in Higher Education: An Evidence-Informed Model to Support Future Design and Implementation. *J. High. Educ. Policy Manag.* **2020**, *42*, 532–546. [CrossRef]
21. Elsharnouby, T.H. Student co-creation behavior in higher education: The role of satisfaction with the university experience. *J. Mark. High. Educ.* **2015**, *25*, 238–262. [CrossRef]
22. Bettencourt, L.A. Customer voluntary performance: Customers as partners in service delivery. *J. Retail.* **1997**, *73*, 383–406. [CrossRef]
23. Fowler, J.G. Customer citizenship behavior: An expanded theoretical understanding. *Int. J. Bus. Soc. Sci.* **2013**, *4*, 5.
24. Bove, L.; Robertson, N.; Pervan, S. Customer citizenship behaviours: Towards the development of a typology. In *ANZMAC 2003: A Celebrations of Ehrenberg and Bass: Marketing Discoveries, Knowledge and Contribution, Conference Proceedings*; University of South Australia: Adelaide, Australia, 2003; pp. 331–338.
25. Gong, T.; Yi, Y. A review of customer citizenship behaviors in the service context. *Serv. Ind. J.* **2021**, *41*, 169–199. [CrossRef]
26. Wilkins, S.; Huisman, J. Student evaluation of university image attractiveness and its impact on student attachment to international branch campuses. *J. Stud. Int. Educ.* **2013**, *17*, 607–623. [CrossRef]
27. Webb, D.; Jagun, A. Customer care, customer satisfaction, value, loyalty and complaining behavior: Validation in a UK university setting. *J. Consum. Satisf. Dissatisfaction Complain. Behav.* **1997**, *1*, 139–151.
28. Beaudoin, N. *Elevating Student Voice: How to Enhance Student Participation, Citizenship and Leadership*; Routledge: New York, NY, USA, 2013. [CrossRef]
29. Balaji, M.S.; Roy, S.K.; Sadeque, S. Antecedents and consequences of university brand identification. *J. Bus. Res.* **2016**, *69*, 3023–3032. [CrossRef]
30. Athiyaman, A. Linking student satisfaction and service quality perceptions: The case of university education. *Eur. J. Mark.* **1997**, *31*, 528–540. [CrossRef]
31. Helgesen, Ø.; Nesset, E. What accounts for students' loyalty? Some field study evidence. *Int. J. Educ. Manag.* **2007**, *21*, 126–137. [CrossRef]
32. Mohamad, M.; Awang, Z. Building corporate image and securing student loyalty in the Malaysian higher learning industry. *J. Int. Manag. Stud.* **2009**, *4*, 30–40.
33. Thomas, S. What drives student loyalty in universities: An empirical model from India. *Int. Bus. Res.* **2011**, *4*, 183. [CrossRef]
34. Kunanusorn, A.; Puttawong, D. The Mediating Effect of Satisfaction on Student Loyalty to Higher Education Institution. *Eur. Sci. J.* **2015**, *11*, 83–96.
35. Oliver, R.L. Whence Consumer Loyalty? *J. Mark.* **1999**, *63*, 33–44. [CrossRef]
36. Vianden, J.; Barlow, P.J. Showing the Love: Predictors of Student Loyalty to Undergraduate Institutions. *J. Stud. Aff. Res. Pract.* **2014**, *51*, 16–29. [CrossRef]
37. Hennig-Thurau, T.; Langer, M.F.; Hansen, U. Modeling and Managing Student Loyalty: An Approach Based on the Concept of Relationship Quality. *J. Serv. Res.* **2001**, *3*, 331–344. [CrossRef]

38. Giner, G.R.; Rillo, A.P. Structural Equation Modeling of Co-Creation and Its Influence on the Student's Satisfaction and Loyalty towards University. *J. Comput. Appl. Math.* **2016**, *291*, 257–263. [CrossRef]

39. Schlesinger, W.; Cervera, A.; Pérez-Cabañero, C. Sticking with Your University: The Importance of Satisfaction, Trust, Image, and Shared Values. *Stud. High. Educ.* **2017**, *42*, 2178–2194. [CrossRef]

40. Chandra, T.; Ng, M.; Chandra, S.; Priyono, P. The Effect of Service Quality on Student Satisfaction and Student Loyalty: An Empirical Study. *J. Soc. Stud. Educ. Res.* **2018**, *9*, 109–131.

41. Borishade, T.T.; Ogunnaike, O.O.; Salau, O.; Motilewa, B.D.; Dirisu, J.I. Assessing the Relationship among Service Quality, Student Satisfaction and Loyalty: The Nigerian Higher Education Experience. *Heliyon* **2021**, *7*, e07590. [CrossRef]

42. Lee, S.M.; Olson, D.L.; Trimi, S. Co-innovation: Convergenomics, Collaboration, and Co-creation for Organizational Values. *Manag. Decis.* **2012**, *50*, 817–831. [CrossRef]

43. Mulyono, H.; Hadian, A.; Purba, N.; Pramono, R. Effect of Service Quality toward Student Satisfaction and Loyalty in Higher Education. *J. Asian Finance Econ. Bus.* **2020**, *7*, 929–938. [CrossRef]

44. Dinh, H.V.T.; Nguyen, Q.A.T.; Phan, M.H.T.; Nguyen, T.; Nguyen, H.T. Vietnamese Students' Satisfaction toward Higher Education Service: The Relationship between Education Service Quality and Educational Outcomes. *Eur. J. Educ. Res.* **2021**, *10*, 1397–1410. [CrossRef]

45. El Alfy, S.; Abukari, A. Revisiting Perceived Service Quality in Higher Education: Uncovering Service Quality Dimensions for Postgraduate Students. *J. Mark. High. Educ.* **2020**, *30*, 1–25. [CrossRef]

46. Annamdevula, S.; Bellamkonda, R.S. Effect of Student Perceived Service Quality on Student Satisfaction, Loyalty and Motivation in Indian Universities: Development of HiEduQual. *J. Model. Manag.* **2016**, *11*, 488–517. [CrossRef]

47. Silva, D.S.; de Moraes, G.H.S.M.; Makiya, I.K.; Cesar, F.I.G. Measurement of Perceived Service Quality in Higher Education Institutions: A Review of HEdPERF Scale Use. *Qual. Assur. Educ.* **2017**, *25*, 325–345. [CrossRef]

48. Martínez-Argüelles, M.J.; Batalla-Busquets, J.M. Perceived Service Quality and Student Loyalty in an Online University. *Int. Rev. Res. Open Distrib. Learn.* **2016**, *17*, 264–279. [CrossRef]

49. Meng, Q.; Zhang, Q. The Influence of Academic Self-Efficacy on University Students' Academic Performance: The Mediating Effect of Academic Engagement. *Sustainability* **2023**, *15*, 5767. [CrossRef]

50. Parasuraman, A.; Zeithaml, V.A.; Berry, L.L. A Conceptual model of service quality and its implications for future research. *J. Mark.* **1985**, *49*, 41–50. [CrossRef]

51. Abdullah, F. HEdPERF versus SERVPERF: The Quest for Ideal Measuring Instrument of Service Quality in Higher Education Sector. *Qual. Assur. Educ.* **2005**, *13*, 305–328. [CrossRef]

52. Abdullah, F. Measuring Service Quality in Higher Education: HEdPERF versus SERVPERF. *Mark. Intell. Plan.* **2006**, *24*, 31–47. [CrossRef]

53. Rojas-Méndez, J.I.; Vasquez-Parraga, A.Z.; Kara, A.L.I.; Cerda-Urrutia, A. Determinants of Student Loyalty in Higher Education: A Tested Relationship Approach in Latin America. *Lat. Am. Bus. Rev.* **2009**, *10*, 21–39. [CrossRef]

54. Annamdevula, S.; Bellamkonda, R.S. The Effects of Service Quality on Student Loyalty: The Mediating Role of Student Satisfaction. *J. Serv. Manag.* **2016**, *11*, 446–462. [CrossRef]

55. Sembiring, M.G. Determinants of Students' Loyalty at Universitas Terbuka. *Asian Assoc. Open Univ. J.* **2013**, *8*, 47–59. [CrossRef]

56. Devinder, K.; Datta, B. A Study of the Effect of Perceived Lecture Quality on Post-Lecture Intentions. *Work Study* **2003**, *52*, 313–319. [CrossRef]

57. Randheer, K. Service Quality Performance Scale in Higher Education: Culture as a New Dimension. *Int. Bus. Res.* **2015**, *8*, 29. [CrossRef]

58. Hatziconstantis, C.; Kolympari, T. Student Perceptions of Academic Service Learning: Using Mixed Content Analysis to Examine the Effectiveness of the International Baccalaureate Creativity, Action, Service Programme. *J. Res. Int. Educ.* **2016**, *15*, 181–195. [CrossRef]

59. Jiewanto, A.; Laurens, C.; Nelloh, L. Influence of Service Quality, University Image, and Student Satisfaction toward WOM Intention: A Case Study on Universitas Pelita Harapan Surabaya. *Procedia-Soc. Behav. Sci.* **2012**, *40*, 16–23. [CrossRef]

60. Mwiya, B.; Bwalya, J.; Siachinji, B.; Sikombe, S.; Chanda, H.; Chawala, M. Higher Education Quality and Student Satisfaction Nexus: Evidence from Zambia. *Creat. Educ.* **2017**, *8*, 1044–1068. [CrossRef]

61. Sung, M.; Yang, S.U. Toward the Model of University Image: The Influence of Brand Personality, External Prestige, and Reputation. *J. Public Relat. Res.* **2008**, *20*, 357–376. [CrossRef]

62. Tarus, D.K.; Rabach, N. Determinants of Customer Loyalty in Kenya: Does Corporate Image Play a Moderating Role? *TQM J.* **2013**, *25*, 303–317. [CrossRef]

63. Alves, H.; Raposo, M. The Influence of University Image on Student Behaviour. *Int. J. Educ. Manag.* **2010**, *24*, 73–85. [CrossRef]

64. Brown, R.M.; Mazzarol, T.W. The Importance of Institutional Image to Student Satisfaction and Loyalty within Higher Education. *High. Educ.* **2009**, *58*, 81–95. [CrossRef]

65. Avram, E.M. The Relationship between the University Image and Students' Willingness to Recommend It. *Cross-Cult. Manag.* **2016**, *18*, 115–123.

66. Hassan, S.; Shamsudin, M.F.; Mustapha, I. The Effect of Service Quality and Corporate Image on Student Satisfaction and Loyalty in TVET Higher Learning Institutes (HLIs). *J. Tech. Educ. Train.* **2019**, *11*, 16–24.

67. Barich, H.; Kotler, P. A Framework for Marketing Image Management. *MIT Sloan Manag. Rev.* **1991**, *32*, 94–104.

68. Kotler, P.; Andreasen, A.R. *Strategic Marketing for Nonprofit Organizations*; Prentice Hall: Upper Saddle River, NJ, USA, 1996; ISBN 9780132345545.

69. Singh, U.; Sahin, O. A Literary Excavation of University Brand Image Past to Present. *Int. J. Soc. Sci. Educ. Stud.* **2017**, *3*, 174–187. [CrossRef]

70. Ali-Choudhury, R.; Bennett, R.; Savani, S. University Marketing Directors' Views on the Components of a University Brand. *Int. Rev. Public Nonprofit Mark.* **2009**, *6*, 11–33. [CrossRef]

71. Alwi, S.F.S.; Kitchen, P.J. Projecting Corporate Brand Image and Behavioral Response in Business Schools: Cognitive or Affective Brand Attributes? *J. Bus. Res.* **2014**, *67*, 2324–2336. [CrossRef]

72. Alves, H.; Raposo, M. Conceptual Model of Student Satisfaction in Higher Education. *Total Qual. Manag.* **2007**, *18*, 571–588. [CrossRef]

73. Cyr, J. The Pitfalls and Promise of Focus Groups as a Data Collection Method. *Sociol. Methods Res.* **2016**, *45*, 231–259. [CrossRef]

74. Easterby-Smith, M.; Jaspersen, L.J.; Thorpe, R.; Valizade, D. *Management and Business Research*; Sage Publications: Thousand Oaks, CA, USA, 2021.

75. Bell, E.; Bryman, A.; Harley, B. *Business Research Methods*; Oxford University Press: Oxford, UK, 2022.

76. Krueger, R.A. *Developing Questions for Focus Groups*; Sage Publications: Thousand Oaks, CA, USA, 1998.

77. Baumgarth, C.; Schmidt, M. How strong is the business-to-business brand in the workforce? An empirically-tested model of 'internal brand equity'in a business-to-business setting. *Ind. Mark. Manag.* **2010**, *39*, 1250–1260. [CrossRef]

78. Mael, F.; Ashforth, B.E. Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *J. Organ. Behav.* **1992**, *13*, 103–123. [CrossRef]

79. Bentler, P.M. *EQS Structural Equations Program Manual*; Multivariate Software: Encino, CA, USA, 1995.

80. Bentler, P.M. *EQS, Structural Equations, Program Manual, Program Version 3.0*; BMDP Statistical Software: Los Angeles, CA, USA, 1989.

81. Bentler, P.M. Comparative Fit Indices in Structural Models. *Psychol. Bull.* **1990**, *107*, 238–246. [CrossRef]

82. Bentler, P.M.; Bonett, D.G. Significance Tests and Goodness of Fit in the Analysis of Covariance Structures. *Psychol. Bull.* **1980**, *88*, 588–606. [CrossRef]

83. Tucker, L.R.; Lewis, C. A reliability coefficient for maximum likelihood factor analysis. *Psychometrika* **1973**, *38*, 1–10. [CrossRef]

84. Sobel, M.E. Asymptotic confidence intervals for indirect effects in structural equation models. *Sociol. Methodol.* **1982**, *13*, 290–312. [CrossRef]

85. Albuquerque, R.P.; Ferreira, J.J. Service quality, loyalty, and co-creation behaviour: A customer perspective. *Int. J. Innov. Sci.* **2022**, *14*, 157–176. [CrossRef]

86. Sweeney, J.C.; Soutar, G.N. Consumer perceived value: The development of a multiple item scale. *J. Retail.* **2001**, *77*, 203–220. [CrossRef]

87. Cronin, J.J., Jr.; Taylor, S.A. Measuring service quality: A reexamination and extension. *J. Mark.* **1992**, *56*, 55–68. [CrossRef]

88. Cronin, J.J.; Taylor, S.A. SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *J. Mark.* **1994**, *58*, 125–131. [CrossRef]

89. Wilkins, S.; Huisman, J. The components of student–university identification and their impacts on the behavioural intentions of prospective students. *J. High. Educ. Policy Manag.* **2013**, *35*, 586–598. [CrossRef]

90. Ribes-Giner, G.; Perello-Marín, M.R.; Dıaz, O.P. Co-creation in Undergraduate Engineering Programs: Effects of Communication and Student Participation. *Int. J. Eng. Educ.* **2018**, *34*, 1.

91. Fagerstrøm, A.; Ghinea, G. Co-creation of value in higher education: Using social network marketing in the recruitment of students. *J. High. Educ. Policy Manag.* **2013**, *35*, 45–53. [CrossRef]

92. Ribes-Giner, G.; Perello-Marín, M.R.; Díaz, O.P. Co-creation impacts on student behavior. *Procedia-Soc. Behav. Sci.* **2016**, *228*, 72–77. [CrossRef]

93. Díaz-Méndez, M.; Gummesson, E. Value co-creation and university teaching quality: Consequences for the European higher education area (EHEA). *J. Serv. Manag.* **2012**, *23*, 194–219. [CrossRef]

94. Krishna, A.; Lazarus, D.; Dhaka, S. Co-creation channel: A concept for paradigm shift in value creation. *J. Manag. Sci. Pract.* **2013**, *1*, 14.