

Understanding Alumni loyalty from a relational marketing approach

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Abstract

Iskhakova, Hoffmann and Hilbert (2017) identify the benefits of a close university-Alumni relationship. On the one hand, material benefits are donations or financial contributions and repurchase behavior based on the lifelong learning theory. On the other hand, non-material benefits are levels of commitment and loyalty of Alumni towards the university. Some of these benefits are: (a) the professional profile of the university's graduates for the accreditation processes, (b) the positioning of the university in the labor market, (c) the direct connection with organizations, and (d) voluntary participation in aspects such as teaching, mentoring and tutoring that provide a better learning experience for students (Hummel, 2010; López & Jaramillo, 2020). It is safe to recognize Alumni as one of the university's main stakeholders. That is why managing the relationship and communication with them is critical. Faced with this need, many educational institutions use relationship marketing to resolve it. Relationship marketing is the creation of a strategy that seeks to attract and retain relationships with the main stakeholders (Mallada & Colom, 2010; Palacio & Rondón, 2018; Schlesinger, Cervera & Iniesta, 2012).

This article seeks to understand the university-Alumni relationship by applying the Alumni-University Identification Model proposed by Schlesinger, Cervera, Iniesta & Sánchez (2014) and Schlesinger et al. (2012). This model is based on relationship marketing and seeks to understand the quality of interactions between the university and its Alumni. In the same way, the level of identification Alumni has with their alma mater. Furthermore, how this affects their commitment and loyalty to the university. The case study is in the Pontificia Universidad Católica del Perú (PUCP university) and Alumni from its School of Management.

This research will use a quantitative approach to seek to test the hypotheses of the relationship between factors raised by Schlesinger et al. (2014). The estimation of the relationships will be done under the structural equation model using the partial least squares regression method. The information collected to meet the research objectives will be through a questionnaire based on Schlesinger et al. (2014), whose constructs present high levels of reliability, aimed at students who graduated between the periods 2010 - 2019 from the School of Management of the PUCP.

Keywords: relationship marketing; higher education; loyalty; Alumni-university relationship; commitment.

I. Introduction and Aim

The relationship between the university and its Alumni⁴ is becoming an increasingly strategic element for universities as it improves the quality of their education, prestige, and reputation. On the other hand, it is a way to counteract factors such as globalization, technology in education, growing competition, reduction in enrollment, and the financial, social, and political crisis resulting from the pandemic. For example, in Peru, the universities were in the process of massification. In addition, the differences in access and quality of university higher education impact the levels of employability of university graduates and the research and knowledge produced. Finally, a new university law forced a considerable reform process. However, the effects of the pandemic exacerbated these problems and increased a decrease in enrollment, an increase in student dropout,

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⁴ Men and women who have completed their higher education, graduated from a university or institute (plural). The masculine singular is *alumnus* and feminine is *alumna*.

and a profound change in the study modality toward virtual distance education (Benites, 2021; Dalangin, 2021; Iskhakova, Hilbert & Hoffmann, 2016; Iskhakova, Hoffmann & Hilbert, 2017; Pedro, Mendes & Pereira, 2021).

In the last 20 years, the panorama of university education in Peru has changed drastically. Since 2000 the number of universities and the student population has doubled. All this happens while the ministry of education struggles to have quality supervision of the universities. This situation leads the oldest universities to modify their management, moving from working in a controlled, uncompetitive and supply-driven environment to a broader, highly competitive and dynamic market. In this situation, the Pontifical Catholic University of Peru (PUCP), founded in 1917, begins to understand that, like any competitive organization, it needs to identify and work together with its stakeholders to maintain its leadership, attractiveness, and relevance in the country. In addition, two current challenges also force universities such as PUCP to identify their priority stakeholders; the first, the accreditation systems that have become essential for competitiveness. Secondly, the university is called to provide lifelong learning for its current and potential students; in the age of knowledge, as professionals, we understand the need for it as a way to stay employable and up-to-date in a changing and dynamic labor market (Benites, 2021; Cajahuanca, Franco & Vásquez, 2021; Cevallos Becerra, 2014; Díaz, 2020; SUNEDU, 2020).

Authors recognize the importance of Alumni's loyalty to their university or alma mater and the impact they can have on academic and economic results. This is the reason Alumni are identified as critical stakeholders. Different authors propose a first classification into material and non-material benefits of a close relationship with Alumni. Regarding material benefits, they are donations in money, products from their companies, or property. This is a widespread practice in countries like the United States but not widely used in Latin American universities. The authors recognize the repurchase behavior as another of the material benefits; it refers to the repurchase of continuous education and training services to continue with their academic and professional development. Additionally, the recommendation of the alma mater to family or friends is also a repurchase process. Finally, the authors also recognize the payment of memberships to Alumni associations as a material benefit (Dalangin, 2021; Iskhakova, Hilbert & Hoffmann, 2016; Iskhakova, Hoffmann & Hilbert, 2017; Pedro, Pereira & Carrasqueira, 2018; Pedro, Mendes & Pereira, 2021; Snijders, Wijnia, Rikers & Loyens, 2019).

Regarding the non-material benefits that a good relationship and involvement of the Alumni with its alma mater can have, the authors identify it as the behavior of the Alumni towards the university. First of all, there is the voluntary work of the Alumni. This voluntary work may consist of the active participation of Alumni in:

- teaching courses;
- participating at events for potential applicants and their families, for students and professors;
- mentoring and tutoring students;
- providing academic feedback with a view of the labor market;
- generating direct connections with surrounding organizations to develop research, case studies, internships for students, collaborative projects, among the main ones;
- influencing decisions and actions for the positioning of the university;
- having a role as part of advisory committees and councils.

All these actions allow the university to provide a better learning experience to students while keeping its approach to the degrees offered, updated and aligned with the labor market. Even more, due to the importance that accreditation processes have gained for universities in recent years, the profile and positioning of the Alumni are evaluated, as well as that of the university and degrees in the labor market (Dalangin, 2021; Hummel, 2010; Iskhakova, Hilbert & Hoffmann, 2016; Iskhakova, Hoffmann & Hilbert, 2017; López & Jaramillo, 2020; Pedro, Pereira & Carrasqueira, 2018; Pedro, Mendes & Pereira, 2021; Snijders, et al., 2019).

In this way, to respond to the current national and international situation and obtain the benefits presented, the universities identify the fundamental role that their Alumni have in their current and future sustainability, competitiveness, growth and development. Therefore, it is safe to recognize Alumni as one of the

university's main stakeholders. Thus, managing this relationship and managing communication with this group is key to the strategic objectives of universities (de Macedo Bergamo, Giuliani, Zambaldi & Ponchio, 2012; Iskhakova, Hoffmann & Hilbert, 2017; Pedro, Mendes, & Pereira, 2021; Schlesinger et al., 2012). Additionally, authors such as Snijders et al. (2019) recognize higher education as an experiential asset and the university as a unique service provider. Under this position, the authors propose that students are consumers of their higher education experience. As a result, the concept of customer is introduced to university education management. Furthermore, for this research, we also introduce the concept of customer loyalty.

Relationship marketing consists of the orientation of an organization towards its clients, which, as previously mentioned, would be Alumni and students. However, universities apply relational strategies with more stakeholders because they are complex organizations seeking society's education over transactions focused on obtaining an academic degree (Khashab, Gulliver & Ayoubi, 2020; Schlesinger et al., 2014; Schlesinger et al., 2012). These relationships are built over time and strategically managed by one of the parties through various communication tools and actions. Shared knowledge, shared goals, and mutual respect are essential aspects (Lacayo-Mendoza & Pablos-Heredero, 2016). Finally, when applying relationship marketing actions and strategies, what a university seeks is to increase its stakeholders' trust, commitment, and loyalty (Schlesinger et al., 2012). Something to consider in the management of these relationships is the evolution these stakeholders may have (e.g. applicants become students to become Alumni) and the interconnection between them (e.g. Alumni who may be professors or an employer company).

II. Theoretical Model

Wilkie and Moore (2003) point out the changes marketing has had as a discipline since 1980. As a result, this discipline has positioned itself within the management sciences and organizational decision-making research in its fourth stage. In this stage, the introduction of relationship marketing happened as a response to a more transactional approach from previous years. The impact of satisfaction, trust, and commitment on customer relationship management is analyzed (Garbarino & Johnson, 1999). In a competitive and globalized environment, those responsible for organizations' marketing need to properly maintain and manage relationships with their stakeholders (Hunt & Morgan, 1994). Although education is a right and universities have a fundamental role in developing societies, increasing supply and competitiveness has led many higher education institutions to apply aggressive marketing strategies (Hartley, 2008).

We have previously mentioned the importance of Alumni for a university and why managing relations with this stakeholder is necessary. Along these lines, Schlesinger et al. (2014) carried out research based on the Alumni - University identification. This identification focuses on the relationship between an educational organization and one of its primary stakeholders, framed within the concept of relationship marketing (Schlesinger et al., 2014). We based this research on the model developed by these authors. Next, we present the model variables.

A. Quality of student-professor interaction

In the context of service management, there is the process of interaction between the service provider and its user; this interaction is a pivotal element in analyzing and evaluating the quality of said experience (Girard & Pinar, 2020; Kotler & Keller, 2016; Vargo & Lusch, 2004). It is no different when the context is educational. The interaction between the professor and their students during the education experience is essential in perceiving the quality of said interaction (Schlesinger et al., 2014).

B. Satisfaction

When mentioning satisfaction, the relationship with the previously generated expectations must be understood (Gallarza & Saura, 2006; Schlesinger et al., 2014). It consists of an evaluation, mainly subjective, of the lived experience that considers the value received compared to the value delivered (Kotler & Keller, 2016). It is even possible to speak of levels of satisfaction since an experience can meet or exceed the expectations set; the second will generate a higher level of satisfaction, which will have an impact on other variables such as

loyalty, image and identification with the institution (Schlesinger et al., 2014). Alumni evaluate satisfaction by comparing their expectations before entering the university as applicants, and the experience lived as a whole (Schlesinger et al., 2014).

C. Identification Alumni-University

From a relational marketing approach, the identification of stakeholders with the organization is an essential aspect of the generation of promoters, that is, members of the various interest groups that will proactively recommend the organization (Schlesinger et al., 2014; Schlesinger, Cervera & Wymer, 2021). The level of identification that an individual will have with a specific institution has its basis on the lived experiences in the relationship with the institution. Likewise, the Alumni's identification with their alma mater is influenced by the quality of the interaction and satisfaction (Schlesinger et al., 2014).

D. Loyalty

This variable is one of the most relevant in marketing management and the relational approach since a high level of loyalty will generate material and non-material benefits for the institution (Kotler & Keller, 2016). A loyal user tends to maintain a close relationship with the institution, preferring it and recommending it over other options (Schlesinger et al., 2014).

E. Image

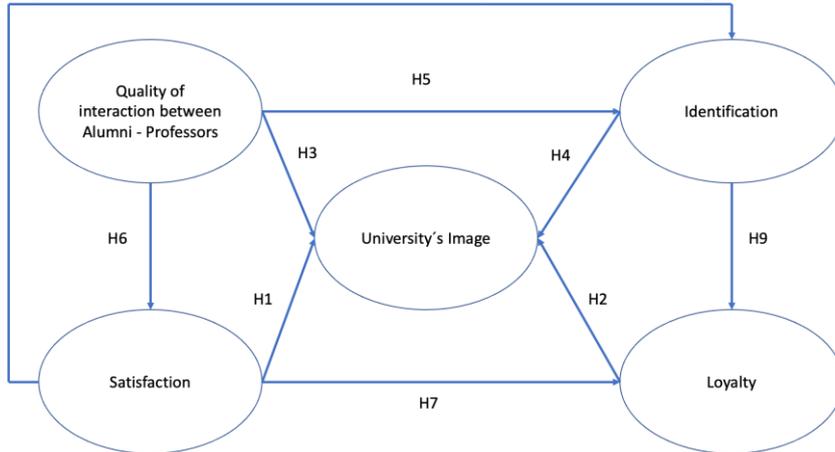
The image is recognized as a brand or organization's notion from a person's or market's perspective. So, image is closely related in research to brand value (Aaker, 1991; Faircloth, Capella, & Alford, 2001; Keller, 1993; Mourad, Ennew, & Kortam, 2011; Syed Alwi & Kitchen, 2014). The image, therefore, has a high component of consumer perception, as it is an active entity in the construction of the brand image of an educational institution (Mourad, Meshreki, & Sarofim, 2020; Pinar, Girard, & Basfirinci, 2020; Syed Alwi & Kitchen, 2014). Both the cognitive and affective aspects of the experience must be considered for the construction of said image by a specific public (Bielefeld, 2009; Schlesinger et al., 2014; Syed Alwi & Kitchen, 2014).

III. Research Methodology

The study chose a purely quantitative approach to verify the proposed research problem empirically. The reason is that the theoretical model to be used, presented by Schlesinger et al. (2014), requires performing a hypothesis test for each of the relationships proposed between the variables already mentioned above. Thus, based on the proposed model, nine hypotheses are proposed:

- H1: The satisfaction (S) of the Alumni influences the image (I) of the university perceived by them.
- H2: The perceived image (I) of the university influences the loyalty (L) of Alumni towards their institution
- H3: The image (I) perceived by university Alumni influences their identification (ID) with the institution
- H4: The quality of the interaction between student and professor (CI) influences the university's image (I) perceived by the Alumni.
- H5: The quality of the interaction between student-professor (CI) influences the Alumni identification (ID) with the university.
- H6: The quality of the interaction between student-professors (CI) influences the Alumni satisfaction (S) with the university.
- H7: The Alumni satisfaction (S) influences the loyalty (L) of the Alumni towards their institution.
- H8: The Alumni satisfaction (S) with the university influences their identification (ID) with the institution
- H9: The identification (ID) between the Alumni and the university influences the loyalty (L) towards it.

Figure 1: Theoretical model of the University-Alumni relationship



Source: Based upon Schlesinger et al. (2014)

As can be seen, the model variables are non-observable. Therefore, we applied multidimensional scales for measurement and validated the study by Schlesinger et al. (2014). The study measured the model variables through 9-point items (Appendix 1)

The study applied a structured questionnaire to 173 Alumni members from the School of Management of the PUCP, a private associative university based in Metropolitan Lima. It is worth mentioning that the results obtained are partly because the collection of information continued until the cut-off date of the writing of this article.

Finally, for the estimation of the model, the relationship coefficients and its adjustment, the partial least squares method was used under structural equation modeling (PLS-SEM) using version 28 of the IBM SPSS AMOS software.

IV. Results and Implications

Prior to estimating the model, we carried out a reliability analysis. As a result, the reliability index for each variable measured by Cronbach's alpha was favorable.

The study made two estimates of the model because, in the first estimate, the relationship between the variable "Quality of the interaction between student and the professor" and the variable "Identification between Alumni and the university" was not significant. Therefore, for the second estimate, this relationship was omitted, which, in turn, implied the rejection of H5. In this second estimate, all the relationships supported by the other hypotheses were not rejected. Therefore, the estimated coefficients and their significance are below.

Table 1. Obtained Estimates

VARIABLE 1	RELATION	VARIABLE 2	ESTIMATED COEFFICIENT	P
S	<---	CI	0.871	***
I	<---	CI	0.365	***
I	<---	S	0.444	***
ID	<---	I	0.566	0.025
ID	<---	S	0.461	0.022
L	<---	ID	0.325	***
L	<---	I	0.291	0.028
L	<---	S	0.557	***

Source: self-made

According to the obtained results, we can observe that all the variables that give an effect positively influence the variables that receive it. This finding agrees with what was proposed and found by Schlesinger et al. (2014).

Specifically, the magnitude of the relationship between the perception of the quality of interaction between professor-student (CI) and satisfaction (S) is highlighted because it is the highest (0.871) of all the estimated relationships by far. It suggests that the interaction between the professor and the student is positive and high in the short term, as it affects satisfaction. However, rejecting H5 shows that it does not affect identification with the university, which is a longer-term result.

On the other hand, we estimated the indirect effects of those variables that play a mediating role within the model. The results obtained show that all the mediating variables add (increase) to the direct effect of other variables. Therefore, this presence is fundamental for deciding policies or relational strategies with the students.

Table 2. Indirect effects

	CI	S	I	ID	L
S	0.000	0.000	0.000	0.000	0.000
I	0.387	0.000	0.000	0.000	0.000
ID	0.827	0.251	0.000	0.000	0.000
L	0.973	0.361	0.184	0.000	0.000

Source: self-made

Finally, regarding the final model's adjustment measures of the estimation, it was possible to obtain favorable indicators (CFI= 0.94 and RMSEA= 0.071). This result indicates that the model can explain the phenomenon studied since the variables and relationships proposals make up a good part of what was identified, minimizing the proportion of the error or the unexplained component.

It is worth mentioning that these findings were obtained from a partial sample since it is an investigation that is still in its development phase.

V. Conclusions

The results show that the model improves when rejecting the hypothesis that the interaction between the student and professor impacts the identification of Alumni with the university. This result allows us to deduce that the relationship between professors and their students is positive during the educational experience, but it is not necessarily relevant over time. This conclusion does not mean that the relationship has no impact on identification, but instead that it happens through the positive image of the university, where this relationship does have a considerable impact. This is why future research with a qualitative approach can help better understand the reality of these relationships.

It is interesting that Schlesinger et al. (2014) study also rejected the hypothesis that states the interaction between the student and professor impacts the identification of Alumni with the university. It is essential to mention, in this regard, that although the quality of the interaction between professor and student does not affect identification directly, it does affect it indirectly through the perception of the image of the university.

The most robust relation in this study is between the quality of the interaction between professors and students and the positive effect on the student's satisfaction. We have already mentioned that it is a short-term result. However, it is critical to understand and propose that alumni management and its relational marketing strategy start before students graduate. We want this level of satisfaction to continue after the students become

part of the School's alumni. This result highlights the importance of professors to the School's relational marketing strategy; now, the School of Management has not identified this relationship, so this is an innovative view for them. Also, it becomes critical since more than half of the School's professors are not full time dedicated to the university. Furthermore, satisfaction is recognized by this study and Schlesinger et al. (2014) as impacting loyalty, image and identification.

The results obtained show that all the mediating variables add (increase) to the direct effect of other variables. Therefore, this presence is fundamental for deciding policies or relational strategies with the students. These results conclude the importance of managing the students' educational experience to generate the link between alumni and the university. Both the professor-student relationship and satisfaction are variables that analyze the experience lived as students. It cannot expect a solid institutional link or high loyalty if there is no work on the educational experience. This is why the School must consider working on this issue.

One of the most critical limitations identified in this research is related to the fact that it is a work in progress, meaning we have only managed to work with a partial sample. Therefore, even though we got very positive results, future research should expand the sample to work with a representative sample from the School of Management. Furthermore, we are analyzing this model in just one degree, management in one university and a particular type of university, private and associative, with more than a hundred years of foundation. Future research needs to expand to understand the situation in public and private universities in Peru and study other joint degrees in the country, such as law, engineering, and medicine. Another limitation is that we have worked with a sample of graduates until 2019, which means we have not analyzed the situation of alumni finishing their studies during the pandemic.

Complementarily, future research could also propose analyzing demographic elements to identify differences in gender, age and time of graduation. In the same way, with a larger and more representative sample, the study could develop clusters with common characteristics related to students' experiences and the variables under study.

Finally, we began to investigate relational marketing and Alumni management from a quantitative point of view. However, because we are trying to understand how the relationships are developed through time, analyzing individual, subjective factors such as loyalty and satisfaction, it is necessary to include a qualitative methodological strategy to deepen the knowledge of the topics. An example could be a netnography because the Alumni network in the School of Management has a Facebook fan page where the School and Alumni interact.

References

- Aaker, D. (1991). *Managing Brand Equity* (1st ed.). N.Y.: The Free Press.
- Benites, R. (2021). *La Educación Superior Universitaria en el Perú post-pandemia*. PUCP. <https://repositorio.pucp.edu.pe/index/handle/123456789/176597>
- Bielefeld, W. (2009). Issues in social enterprise and social entrepreneurship. *Journal of Public Affairs Education*, 15(1), 69–86. <https://doi.org/10.2307/40215838>
- Cajahuanca, J. E. V., Franco, A. C. L., & Vásquez, J. A. G. (2021). Educación universitaria en Perú: un escenario de compromisos y desafíos ante la globalización. *Revista de filosofía*, 38(2), 292-306.
- Cevallos Becerra, D. (2014). La calidad educativa en la realidad universitaria peruana frente al contexto latinoamericano. *Flumen*, 7 (1). <http://www.usat.edu.pe/files/revista/flumen/2014-I/ponencia4.pdf>.
- Dalangin, E. M. L. (2021). Alumni Engagement and Alumni Marketing Strategies of one Higher Educational Institution (HEI) in Batangas. *Asia Pacific Journal of Academic Research in Business Administration*, 7(1).
- De Macedo Bergamo, F. V., Giuliani, A. C., Zambaldi, F., & Ponchio, M. C. (2012). Student loyalty based on relationship quality: an analysis on higher education institutions. *Brazilian Business Review*, 9(2), 26-46.

- Díaz, H (Ed.). (2020). Universidad en el Perú: situación y perspectivas. *Cuadernos de Nueva Revista* 4. <https://www.nuevarevista.net/estudio-sobre-la-universidad-en-el-peru/>
- Faircloth, J. B., Capella, L. M., & Alford, B. L. (2001). The Effect of Brand Attitude and Brand Image on Brand Equity. *Journal of Marketing Theory and Practice*, 9(3), 61–75. <https://doi.org/10.1080/10696679.2001.11501897>
- Gallarza, M. G., & Saura, I. G. (2006). Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behaviour. *Tourism Management*, 27(3), 437–452. <https://doi.org/10.1016/J.TOURMAN.2004.12.002>
- Garbarino, E., & Johnson, M. S. (1999). The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships. *Journal of Marketing*, 63(2), 70–87.
- Girard, T., & Pinar, M. (2020). An empirical study of the dynamic relationships between the core and supporting brand equity dimensions in higher education. *Journal of Applied Research in Higher Education*. <https://doi.org/10.1108/JARHE-04-2020-0097>
- Hartley, D. (2008) Education, Markets and the Pedagogy of Personalisation, *British Journal of Educational Studies*, 56:4, 365-381
- Hummel, R. (2010). *Factors influencing Alumni connection and commitment* (Doctoral dissertation, Lethbridge, Alta.: University of Lethbridge, Faculty of Arts and Science, c2010).
- Hunt, S. D., & Morgan, R. M. (1994). Relationship marketing in the era of network competition. *Marketing Management*, 3(1), 18.
- Iskhakova, L., Hilbert, A., & Hoffmann, S. (2016). An integrative model of Alumni loyalty—An empirical validation among graduates from German and Russian universities. *Journal of Nonprofit & Public Sector Marketing*, 28(2), 129-163.
- Iskhakova, L., Hoffmann, S., & Hilbert, A. (2017). Alumni loyalty: Systematic literature review. *Journal of Nonprofit & Public Sector Marketing*, 29(3), 274-316.
- Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1), 1. <https://doi.org/10.2307/1252054>
- Khashab, B., Guilliver, S.R., & Ayoubi, R.M. (2020) A framework for customer relationship management strategy orientation support in higher education institutions. *Journal of Strategic Marketing*, 28(3), 246-265.
- Kotler, P., & Keller, K. (2016). *Dirección de Marketing* (15th ed.). Retrieved from <http://books.google.com/books?id=CoHT8SmJVDQC&pgis=1>
- Lacayo-Mendoza, A., & Pablos-Herrero, C. (2016) *Managing relationships and communications in higher education efficiently through digital social networks: The importance of the relational coordination model*. DYNA, 83(195) 138-146.
- López Upequi, P. L., & Jaramillo Posada, J. (2020). *La influencia de los elementos de la lealtad en el proceso de toma de decisión de los estudiantes de la línea metro EAFIT, para continuar con sus estudios de posgrado en esta Universidad* (Doctoral dissertation, Universidad EAFIT).
- Mallada Martínez, C., & Colom Gorgues, A. (2010). Análisis de la estructura y coordinación relacional entre stakeholders del cluster de frutas dulces en la región Lleida-huesca, España. *Agroalimentaria*, 16(30), 95-114.
- Mourad, M., Ennew, C., & Kortam, W. (2011). Brand equity in higher education. *Marketing Intelligence & Planning*, 29(4), 403–420. <https://doi.org/10.1108/02634501111138563>
- Mourad, M., Meshreki, H., & Sarofim, S. (2020). Brand equity in higher education: comparative analysis. *Studies in Higher Education*, 45(1), 209–231. <https://doi.org/10.1080/03075079.2019.1582012>
- Palacio De La Cruz, S., & Rondón Rodríguez, C. A. (2018). Marketing relacional para la internacionalización en instituciones de educación superior. *Revista ESPACIOS*, 39(23).
- Pedro, I. M., Mendes, J. D. C., & Pereira, L. N. (2021). Understanding Alumni-alma mater commitment relationships upstream and downstream. *Journal of Marketing for Higher Education*, 31(2), 175-196.
- Pedro, I. M., Pereira, L. N., & Carrasqueira, H. B. (2018). Determinants for the commitment relationship maintenance between the Alumni and the alma mater. *Journal of Marketing for Higher Education*, 28(1), 128-152.

- Pinar, M., Girard, T., & Basfirinci, C. (2020). Examining the relationship between brand equity dimensions and university brand equity: An empirical study in Turkey. *International Journal of Educational Management*, 34(7), 1119–1141. <https://doi.org/10.1108/IJEM-08-2019-0313>
- Schlesinger, W., Cervera Taulet, A., & Iniesta Bonillo, M. A. (2012). La identificación egresado-universidad: un modelo desde un enfoque de marketing relacional. *Revista de ciencias sociales-Universidad del Zulia*, 18(1), 118-135.
- Schlesinger, W., Cervera Taulet, A., Iniesta Bonillo, M. Á., & Sánchez Fernández, R. (2014). A relationship marketing approach to education as a service: An application to the University of Valencia. *Innovar*, 24(53), 113–126. <https://doi.org/10.15446/INNOVAR.V24N53.43919>
- Schlesinger, W., Cervera Taulet, A., & Wymer, W. (2021). The influence of university brand image, satisfaction, and university identification on Alumni WOM intentions. *Journal of Marketing for Higher Education*. <https://doi.org/10.1080/08841241.2021.1874588>
- Snijders, I., Wijnia, L., Rikers, R. M., & Loyens, S. M. (2019). Alumni loyalty drivers in higher education. *Social Psychology of Education*, 22(3), 607-627.
- Superintendencia Nacional de Educación Superior Universitaria (SUNEDU). (2020). *Informe Bienal sobre la Realidad Universitaria*. <https://www.gob.pe/institucion/sunedu/informes-publicaciones/606251-informe-bienal-sobre-la-realidad-universitaria-2018>
- Syed Alwi, S. F., & Kitchen, P. J. (2014). Projecting corporate brand image and behavioral response in business schools: Cognitive or affective brand attributes? *Journal of Business Research*, 67(11), 2324–2336. <https://doi.org/10.1016/J.JBUSRES.2014.06.020>
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, 68(1), 1–17. <https://doi.org/10.1509/jmkg.68.1.1.24036>
- Wilkie, W. L., & Moore, E. S. (2003). Scholarly Research in Marketing: Exploring the “4 Eras” of Thought Development. *Journal of Public Policy & Marketing*, 22(2), 116–146.

Appendix 1. Variables and measurement scales of the model

Variables	Scales
Quality of student-professor interaction	CI2 The professors showed interest in giving more than just the academic
	CI3 They established a good relationship with the students
	CI4 There was a close relationship with the students
Satisfaction	S1 Your decision to have selected it was correct
	S2 Has satisfied your expectations
	S3 In general you are satisfied
Image	Or2 It is a university oriented and concerned about its students
	Or3 It has good professors
	Or4 It is close to society
	Or5 Provides good education
	Or6 Close to companies
	Or7 Provides hands-on training
	Or8 Is very demanding
	R 2 They have a good reputation
	R 3 It is a modern university
	R 4 It has good facilities
	R 6 It is an innovative university
	Acc1 It is easy to enter to study in it
	Acc2 It is accessible to all people
	est-af1 Is nice
	Est-ff2 Is cheerful
est-ff3 Is young	
Identification Alumni-University	ID1 When someone criticizes the university you take it as an insult
	ID2 You are interested in what people think of the university
	ID3 When you talk about the university you usually say "we"
	ID4 When the university succeeds, you feel like it's your success
	ID5 When someone praises the university you take it as a compliment
	ID6 It bothers you that some news from a media outlet criticizes the university
Loyalty	L2 If you had to take other courses, studies, you would consider the university as your first option
	L3 If someone asks you for advice, you would recommend the university
	L4 If the opportunity arose, you would comment positive things about the university with your family and friends
	L5 You would encourage others to study at the university