

From satisfaction to Alumni relational commitment: the mediating role of organizational identification in Moroccan public higher education

De la satisfaction à l'engagement relationnel des Alumni : le rôle médiateur de l'identification organisationnelle dans l'enseignement supérieur public marocain

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Abstract:

This study is set in the context of Moroccan higher education and examines the determinants of alumni relational commitment to their university. To this end, a conceptual model was proposed and tested on a sample of 258 graduates from Moroccan public universities, divided between open-access and regulated-access institutions. The model articulates a triangular relationship between satisfaction, organizational identification, and relational commitment. Data were collected through a questionnaire and analyzed using structural equation modeling (SEM). The findings validate the proposed model, highlighting the pivotal role of organizational identification in alumni relational commitment. They also confirm the direct effect of satisfaction on commitment, while revealing that organizational identification acts as a mediating variable between satisfaction and commitment. Furthermore, a test was conducted to examine whether the admission modality (open vs. regulated) moderates the relationship between organizational identification and relational commitment. The interaction terms were not statistically significant, indicating that no moderation effect was found, and organizational identification similarly influences commitment in both contexts.

These results emphasize the importance for universities of building lasting relationships with their students by fostering a sense of belonging and ensuring the overall quality of their experience. By simultaneously strengthening satisfaction and identification with the institution, universities can encourage sustainable commitment behaviors among their alumni.

Keywords: Alma mater, alumni, higher education, relational commitment, organizational identification, satisfaction.

Classification JEL: M31, I23

Paper type: Empirical Research

1. Introduction

The fundamental human need to stand out within a group, as outlined in Maslow's hierarchy of needs, serves as a key driver in the formation of social relationships. These relationships are largely built on mutual recognition, a crucial factor in the development of a sense of belonging. This sense emerges when individuals feel valued within an interaction where each role is acknowledged (Drezner & Pizmony-Levy, 2021).

In this context, the university emerges as a privileged space where alumni reconnect, nurtured by memories imbued with nostalgia. It is often where they took their first steps into "adult life," gaining knowledge, guidance, and support. For many, this pivotal stage generates deep attachment and a sense of gratitude toward the institution (Rust & Uys, 2014). The bond maintained with their alma mater thus reflects a desire to belong to an affirming community. Graduates' identification with their university stems from the extent to which the institution has contributed to shaping their personal and social identity (Heffernan et al., 2018; Mael & Ashforth, 1992). This sense of identification may foster long-term commitment, potentially leading to future alumni involvement in various forms of contribution (Abdelmaaboud et al., 2021; Borja-Gil et al., 2024; Pinna et al., 2017). However, such a bond does not emerge spontaneously; it requires intentional efforts aimed at strengthening alumni identification with the institution.

The literature highlights several factors that can nurture this connection, among which satisfaction with the university experience holds a central role. A positively perceived experience can—even subconsciously—generate a lasting sense of attachment, extending the relationship beyond graduation and fostering continued commitment with the alma mater (Mael & Ashforth, 1992 ; Bass et al., 2012; Xianping, 2025). In a context marked by budgetary constraints, higher education institutions are called upon to more actively mobilize their alumni communities as strategic levers for support and outreach (Wilkins et al., 2015). Consequently, identification with the university emerges as a key driver likely to encourage alumni engagement as committed stakeholders (Borja-Gil et al., 2024 ; Mael & Ashforth, 1992).

Building on this understanding, we postulate that satisfaction experienced during university years can foster the emergence of this identification, which, in turn, would influence relational commitment. This study aims to address a gap in the literature by analyzing these interrelationships within the underexplored context of Moroccan public higher education. It draws on a survey conducted among Master's level graduates from scientific disciplines, trained in both open-access institutions (e.g., faculties of sciences, polydisciplinary faculties) and regulated-access institutions (e.g., faculties of sciences and technology, engineering schools, etc.).

Our proposed model articulates a triangular relationship between satisfaction, organisational identification, and relational commitment, incorporating both direct and mediating effects. Furthermore, the type of institutional access is introduced as a moderating variable. The perceived nature of the institution—whether selective or inclusive—may influence the intensity of organizational identification and, consequently, the strength of relational commitment. All hypotheses are tested using structural equation modeling (PLS-SEM), conducted via the SmartPLS software.

The article is structured as follows : the first section presents a review of the literature, outlining the key concepts ; the second section develops the research hypotheses; the third details the adopted methodology ; the fourth presents and interprets the results; and the final section offers a general conclusion along with suggestions for future research avenues.

2. The conceptual framework of the study

Strengthening the ties between alumni and their alma mater has emerged as a key strategy for higher education institutions, as it can lead to multifaceted, long-term, and potentially strategic support. In this context, it becomes essential to identify the mechanisms that foster lasting relational commitment. This research adopts such a perspective by examining two major determinants of this commitment : the satisfaction experienced during the university journey and the organizational identification developed toward the institution.

2.1. Relational commitment

In the field of relationship marketing, partnerships are built on mutual commitment, a foundational concept highlighted by Berry and Parasuraman (1991). In this context, Morgan and Hunt (1994) conceptualized relational commitment, drawing upon Blau's (1964) social exchange theory and the principles of relationship marketing. This approach posits that partners invest in a relationship to ensure its longevity, driven by the belief that a sustained connection warrants ongoing efforts to preserve it.

Grönroos (1997) consolidates this perspective by asserting that commitment is essential to building strong relationships with clients. Similarly, several studies describe commitment as the willingness to maintain a relationship, motivated by desire, necessity, or a sense of obligation (Allen & Meyer, 1990 ; Gundlach et al., 1995 ; Moorman et al., 1992).

In the context of higher education, relational commitment plays a pivotal role in strengthening the bond between alumni and their institutions. Numerous studies underscore its importance as a driver of long-term relationships, based on stable and continuous partnerships with the university (Adidam et al., 2004 ; Rojas-Méndez et al., 2009 ; Wong et al., 2018). This commitment is often rooted in a sense of belonging, shared values, and attachment with the alma mater (Adidam et al., 2004 ; Pedro et al., 2017).

Such attachment fosters alumni loyalty and predicts their intention to maintain active ties with the institution (Hennig-Thurau et al., 2001 ; Rojas-Méndez et al., 2009). This could materialize in various forms of support, such as positive word-of-mouth or participation in institutional initiatives (Cownie, 2019). Conversely, a low level of relational commitment tends to explain the gradual disengagement of alumni, and in some cases, their intention to cut ties with their university (Rojas-Méndez et al., 2009 ; Taecharungroj, 2013).

2.2. Satisfaction

Customer satisfaction is a central concept in marketing, recognized as a key predictor of purchasing behavior (Oliver, 1997). While its definition varies among scholars, it is often regarded as an affective or emotional response stemming from the evaluation of a consumption experience (Giese & Cote, 2000). It is based on the perceived gap between initial expectations and the actual performance of a product or service (Fornell et al., 1996).

A critical distinction is often drawn between transactional and relational satisfaction. The former is limited to a single, discrete interaction, whereas the latter is developed progressively over time, through a sequence of interactions and cumulative evaluations within the relationship (Anderson & Sullivan, 1993 ; Ganesan, 1994).

When applied to higher education, student satisfaction aligns more closely with relational satisfaction, as it results from an overall experience shaped by multiple interactions within the institution (Athiyaman, 1997). This experience covers teaching quality, faculty-student relationships, the relevance of the programmes studied, and the effectiveness of administrative services and facilities (Kieng et al., 2021). In this case, student satisfaction occurs when these elements meet or exceed their expectations (Lazibat et al., 2014).

Thus, in this context, satisfaction is not merely an isolated response but rather reflects a holistic perception, shaped by the continuity of experiences throughout the academic career.

2.3. Organizational identification

Social identity theory (Tajfel & Turner, 1979) posits that strong bonds between individuals and organizations arise when the latter contribute significantly to individuals' self-definition. Within this framework, organizational identification is understood as a specific form of social identification, in which individuals incorporate their affiliation with a particular organization into their own identity (Mael & Ashforth, 1992). Bhattacharya and Sen (2003) further develop this notion, noting that such identification often stems from a perceived alignment of values and attributes between the individual and the organization, thereby reinforcing the link between personal and organizational identity.

When applied to the university context, identification with the institution refers to the emotional attachment and sense of belonging that students develop toward their higher education institution (Balaji et al., 2016). It is seen as a set of central, enduring, and distinctive representations of the university—reflecting shared beliefs, values, and culture—that gradually shape metaphors of institutional uniqueness (Steiner et al., 2013).

When perceived as strong and coherent, this organizational identity stimulates a heightened desire for affiliation and strengthens individuals' psychological connection to the institution (Schlesinger et al., 2023). It thus serves as a catalyst for personal identification, enabling individuals to see themselves as part of a meaningful collective. This phenomenon is what Mael & Ashforth (1992) conceptualize as the "sense of oneness." From this perspective, the university is experienced as a genuine community, united by shared values and a collective sense of belonging (Wilkins et al., 2015).

3. Theoretical framework and hypothesis development

3.1. Relationship between satisfaction and relational commitment

Satisfaction constitutes a critical lever in establishing durable exchange relationships (Bowden, 2009; Hennig-Thurau & Klee, 1997). It directly strengthens relational commitment, as demonstrated by numerous studies. When repeated experiences are perceived positively, they cultivate an emotional bond that enhances commitment (Bowden, 2009; Garbarino & Johnson, 1999; Hennig-Thurau & Klee, 1997). Conversely, dissatisfaction strongly undermines the development of emotionally invested relationships (Wulf et al., 2001).

Within the context of higher education, extensive research has highlighted the close link between students' satisfaction and their relational commitment to their institution. Providing a satisfactory academic experience thus emerges as an essential condition to encourage alumni to recommend their university or sustain long-term involvement (Osman et al., 2019 ; I. Pedro et al., 2017; Taecharungroj, 2013; Aslan & Aslan, 2025).

Graduates who have had positive experiences are generally more willing to maintain ongoing relationships with their alma mater, notably by participating in events or engaging in alumni associations (Gaier, 2005; Monks, 2003). Their involvement fosters intergenerational ties and contributes to the vitality of the institution's community life (Clotfelter, 2003). Consequently, satisfaction can be regarded as a key determinant of post-graduation relational commitment, leading to the following hypothesis:

H1: Satisfaction has a positive and significant impact on alumni's relational commitment toward their higher education institution.

3.2. Relationship between satisfaction and organizational identification

Many organizations rely on satisfaction to retain their customers and attract new ones, using this indicator as a measure of their performance (Fornell et al., 1996). Satisfaction is essential for establishing enduring relationships by promoting customers' attachment to the organization

(Oliver & Swan, 1989), thereby playing a key role in enhancing organizational identification (Ashforth & Mael, 1989).

Numerous studies emphasize that satisfaction is an important predictor of organizational identification. Specifically, when individuals are satisfied that the organization positively contributes to achieving their personal goals, their sense of belonging is strengthened (Kazmi & Javaid, 2022). Similarly, Welbourne & Cable (1995) demonstrated that satisfaction, notably in terms of compensation, influences professional behaviors. The resulting positive emotions can reinforce the identity associated with the experienced interaction, thereby increasing its prominence within the individual's reference framework and, consequently, their degree of identification with the organization.

Within the context of higher education, students' identification with their university is closely linked to their overall level of satisfaction (Mael & Ashforth, 1992 ; Schlesinger et al., 2023). This relationship suggests that graduates who are satisfied with their academic experience attribute greater value to their affiliation with the institution (Bass et al., 2012). The university thus becomes an integral part of their identity construction, developing their sense of identification with the institution. Accordingly, we propose the following hypothesis:

H2: Alumni satisfaction with their academic experience has a positive and significant impact on their organizational identification with their higher education institution.

3.3. Relationship between organizational identification and relational commitment

In management studies, organizational identification is widely recognized for its capacity to cultivate positive attitudes toward the organization. It reinforces attachment, increases involvement, and encourages sustained engagement behaviors (Riketta, 2005; Yang & Mostafa, 2024). O'Reilly and Chatman (1986), as cited by Özer et al. (2021), argue that this link is rooted in psychological identification—namely, the internalization of the organization's values and goals into the individual's frame of reference—thus fostering stronger and more meaningful relational commitment.

In the context of higher education, several studies suggest that a strong identification with one's university can enhance students' engagement with the institution (Borja-Gil et al., 2024). Other research has highlighted that such identification increases students' propensity to adopt supportive behaviors toward their alma mater (Xianping, 2025).

According to Pomyalova et al. (2020), when the university environment aligns with students' expectations, identification emerges and contributes to conscious commitment. In other words, a perceived alignment between institutional and individual values promotes attachment and involvement (Mael & Ashforth, 1992).

This individual identification with the academic institution can give rise to favorable attitudes and behaviors, such as emotional attachment (Goh & Kim, 2023), and positive word-of-mouth (Özer et al., 2023). It also encourages advocacy intentions (Abdelmaaboud et al., 2021), leading former students to recommend their university and promote its image (Pinna et al., 2017; Wilkins et al., 2015), thereby contributing indirectly to its attractiveness. This may be reflected in increased affiliation with the university, active participation in campus activities, and suggestions for improvement (Arnett et al., 2003; Balaji et al., 2016).

Based on this theoretical foundation, we propose:

H3: Organizational identification has a positive and significant impact on alumni's relational commitment with their higher education institution.

However, the strength of this relationship may vary depending on the admission modality to higher education, particularly between institutions with selective admission and those with open access. In Morocco, the former are characterized by competitive entry requirements and higher academic standards, which establish a more structured environment often associated with better quality training and academic support (INE-CSEFRS, 2020).

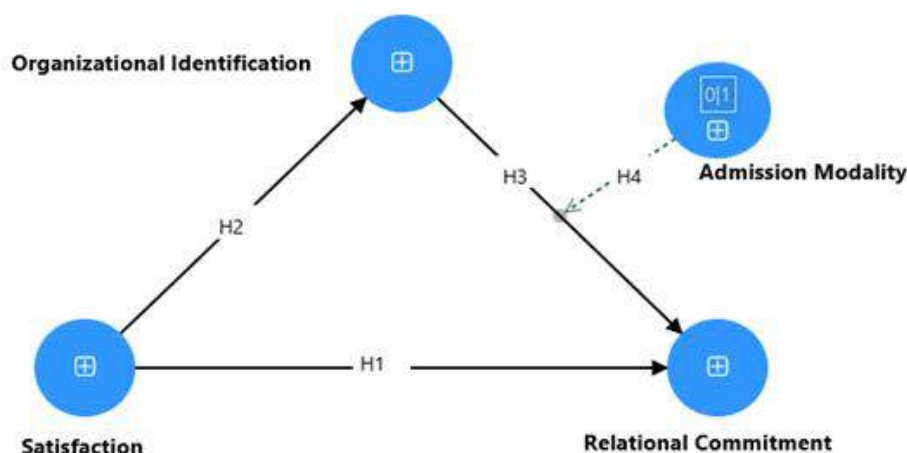
These characteristics can significantly shape students' overall experience. When an institution is perceived as demanding or prestigious, it tends to reinforce students' sense of affiliation and their willingness to maintain a long-term connection with the university after graduation (Heffernan et al., 2018). That said, perceived organisational support – i.e. the belief that the institution values individuals' efforts and cares about their well-being – promotes both identification with the organisation and emotional commitment (Eisenberger et al., 1986).

Within the context of higher education, this mechanism suggests that students enrolled in institutions perceived as supportive, such as those with selective admission modalities, are more likely to develop a strong sense of identification, which may, in turn, enhance their relational commitment to the institution. It is therefore plausible to hypothesize that the mode of admission may shape the effect of identification on post-graduation commitment. This leads to the following hypothesis:

H4. Admission modality moderates the relationship between organizational identification and alumni's relational commitment.

As illustrated in Figure 1, our conceptual model proposes that satisfaction is an antecedent of relational commitment, and that organisational identification is a mediator of this relationship. It also assumes the moderating role of admission modality in the relationship between organisational identification and relational commitment.

Figure 1: Conceptual model of the study



Source: Developed by the authors

4. Methodology

4.1. Measurement of variables

To assess alumni' satisfaction, a five-item scale was developed based on a synthesis of several previous studies. This scale incorporates dimensions from the research of Pedro et al. (2018), Rojas-Méndez et al. (2009), and Sultan & Wong (2012). It is designed to capture how graduates perceive and evaluate their overall experience within their higher education institution. For instance, items include statements such as "I am happy with my experience as a student in the faculty/school".

Organizational identification was measured using an adapted four-item scale derived from the works of Brady et al. (2002) and Mael & Ashforth (1992). These items were selected for their ability to reflect graduates' sense of belonging to their university. For example, the scale includes statements such as, "I am proud to tell others that I am a member of this institution",

which directly captures the bond of identity that former student may maintain with their alma mater.

Relational commitment was measured using a five-item scale constructed from various theoretical and empirical contributions (Encinas Orozco & Cavazos Arroyo, 2017 ; Hennig-Thurau et al., 2001 ; Rojas-Méndez et al., 2009 ; Taecharungroj, 2013 ; Wong et al., 2018). This scale is intended to capture graduates' emotional attachment to their institution as well as their willingness to maintain an active relationship with it after graduation. It reflects the extent to which alumni express intentions to stay attached, support future initiatives, or participate in ongoing institutional life, even after completing their studies.

Each construct was measured using a five-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree". All measures employed are reflective in nature, meaning that the items are considered to reflect the underlying latent construct being evaluated.

To complete the conceptual model, we included admission modality as a binary moderator variable, open access (0) versus regulated access (1), to evaluate whether it influences the relationship between organizational identification and relational commitment.

4.2. Sample and data collection

For this study, a convenience sample was selected. Data were collected through an online questionnaire sent to graduates at the Master's level from various higher education institutions, whether admission was selective or open, and affiliated with twelve Moroccan public universities. Data collection took place between March and April 2025, in faculties and schools covering scientific disciplines, including fundamental sciences, applied sciences, and engineering. After excluding responses from non-graduates, a total of 258 valid questionnaires were retained for analysis.

The questionnaire consisted of four distinct sections. The first collected demographic information to outline the participants' profiles. The second focused on graduates' satisfaction with their experience at their institution. The third measured their degree of organizational identification with the university. Finally, the fourth section assessed their relational commitment to the institution.

5. Analysis and findings

To analyze the data according to the conceptual model presented in Figure 1, we opted for Structural Equation Modeling using the SmartPLS software. This non-parametric method does not require data normality and primarily aims to explain the variance of variables through an iterative approach based on ordinary least squares (Hair Jr. et al., 2021). It also allows for the simultaneous evaluation of complex relationships between latent variables, thereby providing a better understanding of the model's structural links. Moreover, PLS-SEM ensures accurate parameter estimation while remaining accessible and widely adopted in social sciences.

• Demographic characteristics of respondents

Table 1 presents the demographic characteristics of the graduates who responded to the survey, focusing on gender distribution, age group, and type of admission to institutions. The results indicate a slight male predominance, with 51.16% men versus 48.84% women. Regarding age, the most represented category is 26-30 years, accounting for 37.60% of respondents, followed by 22-25 (29.46%) and 31-40 (28.29%). Furthermore, according to admission type, 60.46% of the graduates come from open-access institutions, while 39.54% are from selective-admission institutions.

Table 1 : Alumni profile

Characteristics	Category	Absolute Frequency	Relative Frequency
Gender	Female	126	48.84 %
	Male	132	51.16 %
Age Group	22–25 years	76	29.46 %
	26–30 years	97	37.60 %
	31–40 years	73	28.29 %
	Over 40 years	12	4.65 %
Admission modality	Open-access	156	60.46 %
	Regulated-access	102	39.54 %

Source: The authors' collected data analysis

- **Measurement model validation**

The overall model in our study is based on three reflective latent variables, measured through a total of fourteen manifest variables.

To assess reflective indicators, the first step involves verifying the reliability and validity of the measurement model. As shown in Table 2, all factor loadings, which indicate the strength of the relationship between each indicator and its latent variable, exceed the recommended threshold of 0.7 (Hair Jr. et al., 2021). Moreover, the composite reliability coefficients and Cronbach's alpha confirm strong convergent validity, with values above the critical threshold of 0.7. The analysis of Average Variance Extracted (AVE) further supports these results, with values exceeding 0.5, indicating that the indicators capture a significant portion of the variance of the latent constructs.

The second aspect concerns discriminant validity, which is essential to ensure that each construct measures a distinct dimension from the others. We assessed this validity using the Fornell-Larcker criterion, which is based on comparing the AVE with the squared inter-construct correlations. The results, detailed in Table 3, confirm this discriminant validity, as for each variable, the AVE is consistently higher than the square of its correlations with the other variables in the model.

Table 2: indicators of reflective measurement model

Variables	Items	Factor Loadings	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Organizational Identification	IO1	0.901	0.882	0.911	0.737
	IO2	0.905			
	IO3	0.848			
	IO4	0.774			
Satisfaction	S1	0.889	0.949	0.951	0.832
	S2	0.872			
	S3	0.928			
	S4	0.919			
	S5	0.950			
Relationnal Commitment	E1	0.864	0.942	0.944	0.812
	E2	0.926			
	E3	0.900			
	E4	0.925			
	E5	0.887			

Source: The authors' collected data analysis

Table 3. Discriminant validity between reflective constructs – Fornell-Larcker Criterion

	Admission Modality	Relational Commitment	Organizational Identification	Satisfaction
Admission Modality	1.00			
Relational Commitment	0.006	0.901		
Organizational Identification	-0.062	0.785	0.859	
Satisfaction	0.028	0.825	0.714	0.912

Source: The authors' collected data analysis

- **Structural model validation**

According to Hair et al. (2021), the assessment of the structural model is based on two main criteria: the model's explanatory power and the evaluation of the relevance of the structural relationships.

- **Assessment of the model's explanatory power**

The main objective of structural equation modeling using the PLS method is to maximize the explained variance of the endogenous latent variables. To evaluate this explanatory power, it is essential to consider the R^2 coefficient values for each endogenous variable, in accordance with the recommendations of Hair Jr. et al. (2021).

The results presented in Table 4 indicate that the R^2 coefficients obtained for the model's two endogenous variables are satisfactory. Specifically, satisfaction and organizational identification together explain 76 % of the variance in alumni's relational commitment, indicating a high explanatory power. Additionally, satisfaction alone accounts for 51 % of the variance in organizational identification, underscoring its central role in building a positive and lasting relationship with students. These R^2 values are considered strong according to the thresholds proposed by Chin (1998).

In addition to R^2 analysis, the effect size (f^2) assesses the relative contribution of each exogenous variable to the explanation of the endogenous variables. According to Cohen (1988), as cited by Hair et al. (2021), effect sizes are categorized as small (> 0.02), medium (> 0.15), or large (> 0.35). The results show a relatively small effect size for the relationship between organizational identification and relational commitment ($f^2 = 0.103$). In contrast, large effect sizes were observed for the relationships between satisfaction and relational commitment ($f^2 = 0.584$), and between satisfaction and organizational identification ($f^2 = 1.039$). These values highlight the significant impact of graduates' satisfaction on both their organizational identification and their relational commitment to the university.

Collectively, these findings—summarized in Table 5—confirm the model's explanatory power and emphasize the key role of satisfaction in fostering and sustaining relationships between graduates and their institution.

Table 4. Coefficients of determination (R^2) for endogenous variables

Variable	R^2	Explanatory Power
Relational Commitment	0.760	High
Organizational Identification	0.510	High

Source: The authors' collected data analysis

Table 5. Effect sizes (f^2) of the model

Predictor Variable	Relational Commitment	Organizational Identification
Organizational Identification	0.103	—
Satisfaction	0.584	1.039

Source: The authors' collected data analysis

• Hypothesis testing results

The PLS-SEM algorithm is used to estimate path coefficients, which reflect the strength of relationships between the model variables. The statistical significance of these coefficients depends on their standard error, which is calculated using the bootstrap method. This approach enables the computation of empirical t-values and associated p-values, thereby allowing the assessment of the significance of structural relationships.

The results, presented in Table 6, show that all direct structural relationships involving satisfaction, organisational identification and relational commitment, formulated through Hypotheses H1 to H3, are positive and statistically significant at the 5% level. More specifically, graduates' satisfaction emerges as a key determinant of relational commitment, with an estimated path coefficient of 0.538. This relationship is significant at the 95% confidence level, highlighting the strength of the link between these two dimensions. Additionally, satisfaction also exerts a positive and significant influence on organizational identification, with a coefficient of 0.714, confirming its central role in the model. In turn, organizational identification has a positive and significant effect on relational commitment, with a coefficient of 0.356.

On the other hand, it is important to highlight that the type of institutional access does not significantly moderate the relationship between organizational identification and relational commitment. Indeed, the observed interaction effect ($\beta = 0.062$; p-value = 0.384) is not statistically significant. This means that graduates' identification with their institution does not notably affect their relational ties post-graduation, regardless of whether the institution has regulated or open access. Consequently, the moderation hypothesis H4 is not supported by the empirical data.

In PLS-SEM, when modeling a moderating effect, it's essential to include a direct path from the moderator variable to the endogenous construct (relational commitment). This path is crucial for controlling the direct impact of the moderator; its omission would lead to an overestimation of the moderating effect (Hair Jr. et al., 2021).

In line with this methodological consideration, we evaluated the direct effect of the admission modality on relational commitment. This path likewise proved to be non-significant ($\beta = 0.029$; p=0.656). This observation suggests that the admission modality itself doesn't exert a measurable direct influence on relational commitment.

Table 6. Results related to the structural model hypotheses

<i>Hypothesized Relationship</i>	<i>Path Coefficient</i>	<i>t-value</i>	<i>p-value</i>	<i>Result</i>
Satisfaction → Organizational Identification	0.714	19.777	0.000	Supported
Satisfaction → Relational commitment	0.538	9.882	0.000	Supported
Organizational Identification → Relational Commitment	0.356	4.550	0.000	Supported
Admission Modality × Organizational Identification → Relational Commitment	0.062	0.871	0.384	Not supported

Source: The authors' collected data analysis

• Mediation test results

In addition to analyzing direct effects, our study also investigated indirect effects by examining the mediating role of organizational identification in the relationship between alumni satisfaction and their relational commitment with the institution.

The bootstrapping results, shown in Table 7, indicate that the product of the path coefficients is statistically significant ($p < 0.05$), thereby confirming the presence of an indirect effect. More precisely, organizational identification acts as a partial mediator between satisfaction and relational commitment, suggesting that satisfaction influences commitment both directly and indirectly through enhanced identification with the institution.

Table 7. Bootstrapping test of indirect effects

Indirect Pathway	Path Coefficient	t-value	p-value	Indirect Effect
Satisfaction → Organizational Identification → Relational Commitment	0.254	4.532	0.000	Significant

Source: The authors' collected data analysis

6. Discussion

The findings derived from the empirical test of the structural model confirm the robustness of the proposed theoretical framework. Conducted in the context of master-level scientific graduates from Moroccan public universities, the study highlights both a significant direct effect of satisfaction on alumni's relational commitment and an indirect effect mediated by organizational identification. Moreover, the type of institutional access—whether open or selective—does not moderate the effect, meaning that organizational identification influences commitment equally across both contexts.

Firstly, student satisfaction with their university experience emerges as a major determinant of their willingness to maintain ties with their alma mater. It plays a central role in the post-graduation commitment process. When the academic experience is perceived as positive and aligned with expectations, graduates are more inclined to actively support the institution. By valuing the benefits gained from their educational journey, they develop a lasting attachment to their university. These findings are consistent with previous research in the field (Aslan & Aslan, 2025 ; Osman et al., 2019 ; Pedro et al., 2017 ; Taecharungroj, 2013).

Furthermore, organizational identification acts as a mediating variable in the relationship between satisfaction and relational commitment. It is strongly influenced by the reported level of satisfaction, as indicated by a high path coefficient ($\beta = 0.718$). In other words, the more graduates feel satisfied with their educational experience and associated services, the more likely they are to identify with the institution, expressing emotional attachment, a sense of belonging, and pride in being associated with it (Schlesinger et al., 2023).

This identification subsequently serves as a catalyst for relational commitment. When strong, it encourages alumni to participate in university-organized activities (such as cultural or sporting events) and to become involved in projects led in the name of the institution. The sense of belonging it enhances not only promotes active involvement but also cultivates enduring support for the university. These results are in line with the findings of Arnett et al. (2003), Wilkins et al. (2015), Balaji et al. (2016), Özer et al. (2021), Abdelmaaboud et al. (2021), Goh & Kim, (2023), and Xianping, (2025), all of whom emphasize the essential role of organizational identification in strengthening and sustaining engagement behaviors toward higher education institutions.

Thus, for a graduate to develop a strong and lasting connection with their university, perceiving their academic experience as satisfying proves crucial. This initial satisfaction may create a favorable foundation for the emergence of a solid organizational identification, which can then foster sustained and active commitment.

Finally, it is important to note that the access modality to the institution does not significantly alter the relationship between graduates' organizational identification and their relational commitment. Our analysis shows that the interaction term between identification and access mode (open vs. regulated) is not statistically significant, indicating that this variable does not play a moderating role in the relationship. Consequently, regardless of the access modality, the relationship between identification with the institution and commitment to it remains stable. In other words, alumni who strongly identify with their institution demonstrate similar levels of relational commitment after graduation, whether the institution is selective or not.

In sum, graduates' willingness to maintain lasting relationships with their institution primarily depends on the level of satisfaction they associate with their experience and the degree of

identification they develop with it. It is therefore essential for higher education institutions to prioritize student satisfaction as a means of fostering strong organizational identification, which serves as the foundation for long-term relational commitment (Schlesinger et al., 2023).

7. Conclusion

Conducted within the context of Moroccan higher education, this study focused on the determinants of alumni's relational commitment with their university. Grounded in a conceptual model centered on satisfaction and organizational identification, and tested among graduates from scientific disciplines in public institutions with either open or regulated access, the analysis revealed several significant findings.

The results confirm that perceived satisfaction during the academic journey and the sense of belonging to the institution are key determinants of sustained commitment among Moroccan graduates. Organizational identification plays a critical mediating role between satisfaction and commitment, while the type of institutional access does not moderate the relationship between organizational identification and relational commitment.

This research offers a meaningful contribution at both theoretical and practical levels. Theoretically, it enriches the literature on higher education by highlighting the indirect impact of satisfaction on commitment via organizational identification and by introducing the potential moderating effect of access type in this process, thus enriching the literature on the subject. By targeting a specific and underexplored context such as Morocco, the study opens new avenues for understanding the expectations and needs of local graduates, while broadening the theoretical foundation concerning the links between satisfaction, organizational identification, and relational commitment.

From a practical perspective, the findings provide valuable guidance to higher education administrators seeking to strengthen long-term relationships with their future alumni. Students' satisfaction throughout their academic journey and the development of a strong sense of organizational identification emerge as essential levers for fostering robust engagement. Such relationships, cultivated from the early years of study, promote long-term attachment to the institution and encourage active alumni contributions to the development of their alma mater. Nevertheless, these conclusions should be considered with caution, bearing in mind a primary limitation. This study was conducted exclusively on master degree graduates in science and engineering disciplines from public universities, which may limit the generalizability of the findings across the country. Ensuring a broader validity of these conclusions would require extending the sample to other academic disciplines and degrees, including the bachelor degree. Also of interest would be comparing public and private higher education institutions in Morocco as far as their relationships with their alumni is concerned.

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