

Article

Student Advocacy in Higher Education: The Roles of Institutional DEI, Online Brand Community Engagement, and Service Quality

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Abstract

This study examines how perceived institutional diversity, equity, and inclusion, online brand community engagement, and service quality shape student advocacy in higher education through brand attitude and student-university identification. Drawing on the S-O-R framework and social identity theory, the study develops a model in which institutional signals influence student advocacy through evaluative and identity-based mechanisms. Data were collected from 217 students enrolled at a university in Greece and analyzed using partial least squares structural equation modeling. The findings show that perceived institutional diversity, equity, and inclusion, online brand community engagement, and service quality all positively influence brand attitude. Perceived institutional diversity, equity, and inclusion and online brand community engagement also positively influence student-university identification, whereas the effect of service quality on student-university identification is not significant. Both brand attitude and student-university identification positively influence student advocacy, with student-university identification emerging as the stronger predictor. In addition, brand attitude mediates the effects of all three institutional signals on student advocacy, whereas student-university identification mediates only the effects of perceived institutional diversity, equity, and inclusion and online brand community engagement. The study highlights the importance of inclusive institutional values and digitally mediated engagement in shaping supportive student behavior in higher education.



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1. Introduction

In the past few decades, the higher education sector has been trending towards a market-driven orientation, whereby institutions of higher learning compete for reputation, students, as well as long-term relational outcomes. This shift has unfolded alongside the rapid expansion and internationalization of higher education worldwide, with the

number of students enrolled in tertiary education rising from about 100 million in 2000 to 269 million in 2024, average global participation reaching 43%, and the number of internationally mobile students increasing to nearly 7 million (UNESCO, 2026). As part of the overall marketization of higher education, students are no longer simply considered the targets of higher education services but are more similar to customers who assess institutions based on their perception of value, experience, and relational benefits (Goi et al., 2018). In this regard, institutions are not only expected to provide quality services but to promote the underlying organizational values that appeal to the identities of students. In line with this paradigm shift, the concept of service quality and its significance in the context of higher education marketing has been thoroughly explored within the existing literature. For example, the adoption of HEdPERF frameworks has explored the significance of perceived service performance on students' attitude and behavior towards the university (Nagoya et al., 2021). However, the thrust of this paradigm remains on the quality aspects and does not address institutional signals, with more emphasis on social aspects.

Emerging concurrently, however, has been the role of diversity, equity, and inclusion (DEI) as a key institutional value within the context of higher education. There has been a growing recognition by institutions of higher education to consider DEI initiatives as part of their institutional identity, communication, or branding strategy. However, the lack of investigation on the behavioral aspect of DEI initiatives toward students, as consumers, within the marketing body of knowledge remains a void. Current studies on DEI are mainly conceptualized based on the human resource approach, focusing on the outcomes of employees, the internal environment, and workplace diversity (Abdelmaaboud, 2020; Cupido, 2023).

Today, closing this gap is particularly important, as students' interactions with universities are not limited to a transactional relationship. Students are embedded in a set of organizational values, peer networks, and social media interactions, where they form identity-linked affiliations influencing their evaluations of and representations about their universities (Alhamad et al., 2024). Previous literature has indicated that students' actions are not directly a product of organizational signals but are filtered by cognitive-intellectual and affective-identity processing internally within students themselves (Han et al., 2022; Bai & Lai, 2025;). However, existing literature has not integrated a behavioral framework regarding DEI efforts aimed at explaining those value-laden signals' impact on students' advocacy efforts. Prior research has shown that student-university identification is an important antecedent of students' advocacy intentions, both directly and indirectly through student satisfaction and student trust (Abdelmaaboud et al., 2021). This suggests that advocacy in higher education is not only a consequence of functional evaluations but also develops through relational and identity-based mechanisms. Building on this insight, the present study extends the student advocacy literature by examining how perceived institutional DEI, online brand community engagement, and service quality operate as institutional stimuli that shape student advocacy through both brand attitude and student-university identification.

To fill this gap, this particular research utilizes both Stimulus-Organism-Response (S-O-R) Theory and Social Identity Theory (SIT) to analyze how institutional DEI efforts, online brand engagement, and university service quality impact student advocacy together. According to S-O-R framework (Mehrabian & Russell, 1974), institutional DEI efforts, university services, and online engagement are considered institutional stimuli that impact student responses indirectly via institutional organismic processes, such as brand consumer attitude and university identification (Duong & Vu, 2023; Han et al., 2022). On the other hand, Social Identity Theory (SIT) puts forward student university identification as a particular psychological process that allows institutional values and branding to be incorporated

into the personal concept, promoting loyalty and advocacy behaviors (Pinna et al., 2017; Wilkins et al., 2016).

Through the integration of DEI within a marketing-oriented framework of behavior, this present study offers three contributions. Firstly, this present study contributes to existing studies on service quality within higher education by introducing a pertinent university element, namely, DEI, which has a formative influence on student attitudes and behaviors. Secondly, this present study contributes to existing studies on identities within a framework of customer loyalty by exploring university and student identification as a mediator. Thirdly, through the integration of S-O-R and Social Identity Theory, this present study contributes to existing studies on university branding through an inclusive framework. Based on the S-O-R framework and Social Identity Theory, this research raises the following questions:

- RQ1. To what extent do perceived institutional DEI efforts, online brand community activity, and university service quality impact students' brand attitudes towards their institution?
- RQ2. How are perceptions of university-led DEI activities, engagement with the online brand community, and university service quality associated with university and student identification?
- RQ3. To what degree do attitudes towards brands, and student-university identification, contribute towards student advocacy behaviors?
- RQ4. Are brand attitude and student-university identification mediating variables in the following relationships: (a) perceived institutional DEI, (b) engagement in online brand communities, and (c) service quality and student advocacy?

2. Theoretical Framework and Hypotheses' Development

2.1. S-O-R Framework

The S-O-R model of behavior views behavior as the result of internal cognitive and affective processes triggered by external stimuli, as opposed to responses being seen as reflexively driven by external cues. In its traditional form, exposure to external environments (S) was assumed to lead to changes within the internal state of the individual (O), which then generate responses (R) (Chang et al., 2011; Mehrabian & Russell, 1974; Mishra et al., 2022). This pattern of thinking has been found incredibly useful in service and organizational environments where people process, appraise, and emotionally experience external stimuli before any intentions or behavior occur.

The stimuli serve to represent cues or context outside the individual, the organism represents the internal processes of perception, evaluation, emotion, or attitudes, and the response serves to capture processes that are intentional or behavioral (Han et al., 2022; Mishra et al., 2022). Across various fields, there has been evidence showing that often, the cues outside the individual cannot sufficiently explain the responses or behaviors unless the processes within the organism are modeled explicitly (Duong & Vu, 2023; Han et al., 2022; Sugiarto et al., 2022). In other words, the usefulness of the S-O-R model relies upon the notion that the stimuli can only be given behavioral significance after appraisal or evaluation (Díaz-Tautiva et al., 2023; Han et al., 2022; López-Felices et al., 2023).

More specifically, the "stimulus" element is not necessarily confined to tangible real-world settings; rather, it is also possible to conceptualize broader contextual elements as stimuli that indirectly drive behavioral outcomes through subjective interpretation (Díaz-Tautiva et al., 2023; López-Felices et al., 2023). More specifically, as concerns higher education settings, students need to assess and subjectively interpret various institution-related unseen elements such as institution signals, covering quality cues, image cues, and

institution-reported value-laden messages, in engaging with such settings over time (Goi et al., 2018; Nagoya et al., 2021).

Following the S-O-R model, the organism is no longer seen as an undifferentiated mediator but as having psychological significance in terms of internal processing that could be multi-dimensional and staged. The idea that the organism has stages that process the stimuli before respondents react to the stimulation was conceptualized by the integration of the S-O-R theories by Bai and Lai (2025) as having three stages: cognitive evaluation, emotional feelings, and affective feelings, suggesting that the stages are in sequence and are initiated by the stimuli. The empirical finding further strengthens the theory that the states in the S-O-R model interact and function in harmony (Duong & Vu, 2023; Le et al., 2023).

The response component of the S-O-R model also requires careful scrutiny. In most institutional and value-oriented scenarios, responses as behaviors are not always immediate reactions but rather outcomes of intentional processing. The existing literature clearly confirms the important role of intention as an essential organismic path mediating behavior in response to stimuli, thus underlining the sequenced process in S-O-R (Han et al., 2022; Sugiarto et al., 2022). In the context of higher education, the S-O-R model has been directly validated for its appropriateness in understanding student outcome constructs. Previous research has also shown that college stimuli, such as service environment, interactions with staff, facilities, image, and perception of quality, impact student responses in terms of internal states of mind, including emotions, experience, and attitude, respectively (Nagoya et al., 2021). In general, the S-O-R model provides a strong conceptual framework for specifying the process of external institutional cues being processed and internalized before being linked to student intentions and behaviors.

2.2. Social Identity Theory

SIT explains attitudes and behaviors as partly derived from individuals' identification with social groups through which they define their self-concept and sense of belonging. In higher education, this process manifests as students' identification with their university, academic units, peer communities, and institutional values, shaping how they evaluate and relate to the institution (Alhamad et al., 2024).

Empirical research clearly indicates that non-academic outcome variables cannot be adequately accounted for by functional considerations alone. Instead, students' sense of belonging and social integration is crucial in establishing student satisfaction and supportive orientations toward the organization (Alhamad et al., 2024). Social identification related to student life and peer groups coexists and is accompanied by organizational identification related to the university, which generally has more powerful and long-lasting effects related to commitment, satisfaction, and performance achievement (Cupido, 2023; Wilkins et al., 2016; Özer et al., 2023). Students at the institutional level rely on the crucial role of student-university identification as a basic psychological mechanism that bridges institutional identity cues related to prestige, image, distinctiveness, and congruence and behaviors focused on institutional loyalty (Bakirtas & Gulpinar Demirci, 2022; Pinna et al., 2017; Rauf & Abbasi, 2024).

Signals coming through the brand also have additional identity-formation functions. Empirical research reveals that brand identification is reached as institutional characteristics such as prestige, distinctiveness, perceived social responsibility, mission, and symbolic storytelling are aligned with self-constitutions and self-definitional perspectives (Abdelmaaboud, 2020; Kountouridou, 2022). Empirical analysis also indicates that more stable institutional organization-based identifications are more effective than brand-based identity support and emphasize the importance of organization or institutional sense-belonging (Bui, 2025; Wilkins et al., 2016).

Supportive outcomes appear most distinctly when identification is behaviorally articulated through actions of promotion, including positive word-of-mouth, which enables students to express their affiliation with their groups (Aslan & Aslan, 2025; Schlesinger et al., 2023). Online spaces further enhance these outcomes, allowing for co-created identity through social media brand communities, socializing, and storytelling, thus enhancing student-university identification, as well as supportive behavior (Aydın, 2026). Online brand communities play a critical role in strengthening cognitive and relational ties, which in turn significantly enhances members' commitment and advocacy behaviors towards the institution (Wong, 2025). Overall, SIT explains student loyalty, promotion, and engagement in higher education settings. Within these contexts, SIT would function in harmony with the S-O-R framework, especially through specifying identity-based identification as an essential organismic mechanism through which institutional cue internalization occurs, resulting in action responses in settings of higher education.

Taken together, the literature reviewed above indicates three interrelated gaps. First, higher education marketing research has predominantly emphasized service quality, satisfaction, image, and loyalty, while giving less attention to value-laden institutional signals such as perceived DEI. Second, although student-university identification has been recognized as an important driver of student support and advocacy, fewer studies have examined how DEI perceptions and online brand community engagement contribute to this identification process. Third, prior studies on student advocacy have often focused on satisfaction, trust, or loyalty-related mechanisms, whereas less is known about how evaluative and identity-based pathways operate simultaneously. The present study addresses these gaps by integrating the S-O-R framework and Social Identity Theory to explain student advocacy through both brand attitude and student-university identification.

2.3. Hypotheses' Development

2.3.1. Direct Relationships

The perceived institutional DEI reflects how strongly students feel that their university genuinely values and practices diversity, equity and inclusion via its policies, behaviors and culture. Students' university perceptions, not at academic level solely but socially as well, are being shaped when institutions demonstrate elements of justice, support to diverse communities and a sense of belonging. With contemporary higher education research, institutional-level DEI is able to improve student perception towards the university brand image alongside affecting after-graduation involvement propensity (T. D. Nguyen et al., 2024). The latter implies that DEI serves as more than a policy requirement. It ultimately becomes institutional identity and a brand asset.

Communicated values such as fairness, inclusion and social responsibility strengthen perceived brand legitimacy, moral credibility and emotional connection (Ferraro et al., 2023). Inclusive and socially conscious behaviors facilitate the alignment of stakeholders to brand values, resulting in the elevation of brand evaluations and attitudes. Empirical data also demonstrate that brands that exhibit social responsibility, particularly those emphasizing fairness and inclusion, are able to enhance consumer trust, brand image and brand attitude (Fatma & Rahman, 2016). In higher education, the perception of a university as dedicated to DEI is likely to promote more positive brand sentiments, as students are increasingly expecting institutions to represent fair and inclusive ideals. Taken together, this body of evidence suggests that DEI serves as both a symbolic and functional component of institutional branding. Therefore, the following hypothesis is proposed:

H1. *Perceived institutional DEI has a positive effect on brand attitude.*

Online brand community engagement (OBCE) is typically defined as consumers' intrinsically motivated, positively valenced cognitive, emotional and behavioral activity directed toward a brand and other members during interactions in an online brand community (Dessart et al., 2015; Habibi et al., 2014). It incorporates elements of attention or absorption, enthusiasm or enjoyment, as well as actions such as sharing, learning and endorsing (Dessart et al., 2015). The total assessment of a brand, derived from brand-related thoughts and emotions, is known as brand attitude. There is a plethora of theoretical mechanisms that link OBCE to more favorable brand attitudes. The online community's engagement is an interactive, experiential process where consumers learn, share, advocate and co-develop around the brand (Brodie et al., 2013). Recent bibliometric evidence on brand-related social media content also indicates that digital brand interactions constitute an important research stream within branding and consumer engagement studies (Yaparak, 2024). These practices generate value alongside potential enjoyment, resulting in the generation of positive related emotions and satisfaction that constitute core drivers of favorable brand evaluations (Dessart et al., 2015). In addition, exposure and regular interactions increase brand trust, while positive brand attitudes and actions are largely predicated on trust (Habibi et al., 2014; Laroche et al., 2012). Thus, the following hypothesis is proposed:

H2. *Online brand community engagement has a positive effect on brand attitude.*

Perceived quality of service functions as a cognitive evaluation. It precedes and in parallel influences with significance emotional responses such as customer satisfaction (Cronin et al., 2000). Favorable service evaluations are widely regarded as the primary cause of a positive corporate image or brand perception, acting as a mental filter for subsequent judgments (Lai et al., 2009). In the higher education framework, this linkage is explicitly modeled, with perceived service quality being crucial in shaping the overall model of the institutional brand image. Student satisfaction and trust, at institutional level, are affected by service quality and mediate the image formation process of the institution (Sultan & Wong, 2013). According to these findings, the following hypothesis is proposed:

H3. *Service quality has a positive effect on brand attitude.*

Student-university identification has been conceptualized as being aligned with students' sense of belonging. It encompasses the sense of acceptance, respect and inclusion in the institutional community as well as the university experience of a place to be yourself (Allen et al., 2024; Di Battista et al., 2023). The two-decade systematic review devoted to the sense of belonging in higher education from Allen et al. (2024) has identified core definitional themes such as the institution, peer and staff connectedness, acceptance and one's value, alongside safety and inclusion. In complementarity, Dost and Mazzoli Smith (2023), conducting a qualitative meta-ethnography that synthesized students' accounts, defined belonging as "feeling part of somewhere". They highlighted this essence with a focus on where individuals showcase authenticity and confidence when it comes to their identities in ethnically heterogeneous communities and learning spaces on and off campus. Several studies link institutional diversity, equality, and inclusion initiatives to the formation of identity and belonging within this conceptual framework. An experimental study from Shaheed and Kiang (2021) resulted in the conclusion that multicultural messaging increased students' comfort with interracial interactions. Top-down diversity communication, DEI-oriented curricula as well as a welcoming institutional climate are positively significant predictors of university belongingness, while experiences of microaggressions significantly undermine it, according to the survey research of Chattopadhyay (2022). Equality, diversity and inclusion are similarly framed as a strategic priority that

shapes institutional culture, with inclusive processes and cultures emphasized as necessary to provide equality of opportunity across gender, ethnicity, social class, sexual orientation, ability and other identities (Siri et al., 2022). Other complementary studies around the institutional image in higher education context portray that students' perceptions of the institution as an organization are powerful antecedents of value, satisfaction and loyalty outcomes that are conceptually close to identification and are likely to be influenced by how strongly the institution signals commitment to equality and inclusion (R. M. Brown & Mazzarol, 2009). In light of these findings, the following hypothesis is proposed:

H4. *Perceived institutional DEI has a positive effect on student-university identification.*

Online brand communities provide students with ongoing and rich interactions around the university brand that both express and shape their identities at a social level. The community engagement therein is an intrinsically motivated form of interaction and cooperation with other members. It is fueled from perceived value congruence and recognition, and it leads members to assist others in supporting collective goals (Martínez-López et al., 2021). Social media brand communities foster shared consciousness and a sense of belonging, increasing identification with the brand and community (Habibi et al., 2014; Laroche et al., 2012). In the context of higher education, social media engagement with institutional content is many times explained with Social Identity Theory. With students interacting with posts and related messages, other online students build connections with the university brand itself. These touchpoints of interaction conducted on repeat, synthesize a form of institutional engagement, collectively strengthening the way students relate to and identify with their university (Perera et al., 2023). In addition, studies on university branding indicate that students' identification with their university, shaped with brand reputation and lived social experiences, drives brand-supportive behaviors (Xiao et al., 2023). Social media initiatives of universities that cultivate trusted digital communities target the fostering of a sense of community, inclusion and emotional wellbeing, which pose core components of feeling part of, and identifying with, the institution (Galioto et al., 2025). Hence, the following hypothesis is proposed:

H5. *Online brand community engagement has a positive effect on student-university identification.*

Extant research on the quality of services in higher education shows that when students perceive high quality across academic, administrative and facility dimensions, they report higher satisfaction, trust and favorable brand-related evaluations of their institution. Sultan and Wong (2013) find that perceived service quality has direct positive effects on student satisfaction and trust, while university brand performance and behavioral intentions are driven indirectly through these attitudinal consequences. Along similar lines, studies show that qualitative academic services increase satisfaction and the intention to remain enrolled at the university, whereas poor institutional facilities and quality gaps erode satisfaction (Mattah et al., 2018). More comprehensive models verify that perceived service quality enhances perceived value and corporate or institutional image, which in turn promote satisfaction and loyalty-like results (R. M. Brown & Mazzarol, 2009). Student-university identification can therefore be positioned as a higher-order attitudinal state that emerges when repeated high-quality service encounters lead students to trust the university, feel satisfied and proud of membership, and evaluate its image positively. Evidence from higher education specific models indicates that service quality drives not only satisfaction and trust but also favorable brand performance and future behavioral intentions, including positive word-of-mouth and intentions to study further with the same institution (Sultan & Wong, 2013). In parallel, structural models in other service settings show that service

quality enhances corporate image and perceived value, which then translates into stronger loyalty, an outcome conceptually close to identification as an enduring bond with the provider (Lai et al., 2009). Based on these findings, the following hypothesis is proposed:

H6. *Service quality has a positive effect on student-university identification.*

Positive brand-related evaluations are frequently found to be important motivators of loyalty and referral behaviors in higher education and services research. In the university setting, student loyalty behaviors, including institutional promotion, return and contact maintenance, are strongly shaped by institutional image and perceived value, which significantly influence satisfaction and reinforce intentions for advocacy (R. M. Brown & Mazzarol, 2009). Students' loyalty is similarly driven by satisfaction and perceived reputation, with loyalty operationalized as the probability of college recommendation to friends together with re-enrolling or taking further courses at the same institution (Helgesen & Nasset, 2007). Related attitudinal constructs, such as perceived brand orientation and overall image, have also been shown to influence satisfaction, loyalty and post-enrolment communication, indicating that favorable university brand evaluations cascade into supportive behaviors (Yaprak, 2025). Research on university image attractiveness similarly highlights the strategic importance of positive student word-of-mouth in influencing prospective students (Wilkins & Huisman, 2013b). Therefore, the following hypothesis is proposed:

H7. *Brand attitude has a positive effect on student advocacy.*

Grounded in Social Identity Theory, student-university identification reflects students' perceived oneness and belongingness to their institution, whereby they define themselves at least partly in terms of membership and feel psychologically intertwined with its fate (Mael & Ashforth, 1992). Mael and Ashforth (1992) argue that when identification is prominent, individuals are more likely to choose congruent behaviors and to support the institutions that embody it. This pattern is consistent with broader evidence showing that attractive organizational images and strong identification foster supportive behaviors, including recommending the organization to others (N. Nguyen & LeBlanc, 2001; Wilkins & Huisman, 2013a). Accordingly, students who strongly identify with their university are expected to be more willing to engage in advocacy behaviors, recommending the institution, speaking positively about it and promoting it within their networks (Mael & Ashforth, 1992; Naheen & Elsharnouby, 2024). Therefore, the following hypothesis is proposed:

H8. *Student-university identification has a positive effect on student advocacy.*

2.3.2. Mediation Effects

Perceived institutional DEI signals fairness, respect and inclusion, which are used by students as key cues when they evaluate their university as a brand. Within the higher education context, university-level DEI initiatives enhance students' perceptions of brand image with significance, alongside their identification with the university, resulting in postgraduation engagement behaviors (T. D. Nguyen et al., 2024). Considering this pattern, DEI does not translate directly into advocacy but rather first shapes the positive way students see the institution as a brand-like object. In the behavioral theory framework, the Theory of Reasoned Action posits that attitudes are proximal determinants of intentions and behaviors (Kang & Ki, 2025). Evidence from DEI-focused branding work and diversity-climate studies shows that inclusive practices and representation tend to strengthen brand-related evaluations, including brand image, trust and satisfaction, which contribute to the prediction of supportive behaviors (Ferraro et al., 2023; T. D. Nguyen et al., 2024).

Considering that brand attitude is the central evaluative summary of the university as a brand, it is theoretically coherent to expect it to mediate the link between perceived institutional DEI and student advocacy. Hence, the following hypothesis is proposed:

H9. *Brand attitude mediates the relationship between perceived institutional DEI and student advocacy.*

Online brand community engagement has been shown to drive strategic outcomes, including willingness to co-create, brand loyalty and positive word of mouth, which constitute core advocacy manifestations (Martínez-López et al., 2021). Bibliometric evaluations similarly identify participation in online brand communities as a key predictor of outcomes that encompass attitudinal constructs such as brand attitude and brand attachment, as well as loyalty, electronic word of mouth and other advocacy actions (Rao et al., 2022). In higher education, social brand engagement on institutional social media strengthens students' knowledge of the brand, feelings and associations, resulting in the enhancement of customer-based brand equity and highlighting the pathway from interactive engagement to a more favorable brand-related evaluation (Perera et al., 2023). Brand community research also emphasizes that engaged members often become advocates and actively promote the brand to others; however, these behaviors typically arise once a positive evaluative stance toward the brand has been formed (Islam & Rahman, 2017; Schau et al., 2009). Based on these findings, the following hypothesis is proposed:

H10. *Brand attitude mediates the relationship between online brand community engagement and student advocacy.*

Service quality has been shown to be a significant antecedent of brand-related evaluations in higher education, and brand attitude in turn serves as a proximal predictor of behavioral outcomes. Because service quality shapes how students evaluate their institution, and brand attitude captures the overall valence of that evaluation, it is plausible that brand attitude transmits the effect of service quality on student advocacy. This indirect pathway is consistent with the evaluative route proposed in the S-O-R framework and with prior work showing that service-driven evaluations cascade into supportive behavioral intentions (R. M. Brown & Mazzarol, 2009; Sultan & Wong, 2013). Hence, the following hypothesis is proposed:

H11. *Brand attitude mediates the relationship between service quality and student advocacy.*

Perceived institutional DEI shapes students' experiences of fairness, representation and inclusion, which constitute core antecedents of identification toward the institution. Universities that implement visible and well-resourced DEI policies are perceived by students as practitioners of organizational justice that create inclusive climates on campus, suggesting the fostering of a sense of oneness with the institution (T. D. Nguyen et al., 2024). Students' perceptions of inclusion and sense of belonging are linked to better engagement and persistence and are driven by receptive social climates, inclusive policies, support services and accessible spaces (Taff & Clifton, 2022). Inclusive and diversity climates that reduce bias and hierarchies also strengthen attachment and identification, particularly in demographically diverse groups (Gonzalez & Denisi, 2009; Nishii, 2013). The above suggests that institutional DEI functions as a higher-order cue through which students feel that they fit and are valued, thereby enhancing student-university identification. In the DEI-branding context, university-level DEI initiatives significantly improve brand image and intention to engage post-graduation, with student identification providing partial or full mediation of these effects (T. D. Nguyen et al., 2024). Considering the above, literature

supports a process whereby institutional DEI enhances student-university identification, which in turn increases students' motivation to advocate for their institution through positive word-of-mouth, public defense and ongoing engagement. Hence, the following hypothesis is proposed:

H12. *Student-university identification mediates the relationship between perceived institutional DEI and student advocacy.*

Student-university identification is theoretically well positioned to mediate the effect of online brand community engagement on student advocacy because it is precisely the kind of organization-based social identity that translates community experiences into extra-role, supportive behavior (Bhattacharya & Sen, 2003). Online brand community engagement is defined as an intrinsic motivation to interact and cooperate with community members around the brand, entailing helping others, joint activities and sustained interaction (Martínez-López et al., 2021). These interactions embed individuals in the social network of the organization and increase the salience of the organization as a social category, which Bhattacharya and Sen (2003) identify as a key precondition for consumer-company identification. As users become more engaged, they experience a stronger sense of belonging and shared values. This maps directly onto perceived oneness with the organization that satisfies self-definitional needs (Bhattacharya & Sen, 2003). Organizational identification has been shown consistently to predict alumni support behaviors, while consumer-company identification yields loyalty, active promotion and customer recruitment because identifiers have a vested interest in the organization's success and want to communicate their affiliation positively (Bhattacharya & Sen, 2003; Mael & Ashforth, 1992). Conducted in higher education, online brand community engagement supplies rich, identity-relevant experiences that cultivate student-university identification, which then motivates advocacy behaviors, consistent with S-O-R logic (Bhattacharya & Sen, 2003; Martínez-López et al., 2021). Because the core mechanisms linking community experience to outward support are identity-based, the following hypothesis is proposed:

H13. *Student-university identification mediates the relationship between online brand community engagement and student advocacy.*

Higher education and service research shows that service quality is a powerful driver of students' behavioral intentions, including loyalty, recommendation and positive word of mouth (Zeithaml et al., 1996). In higher education, information quality, teaching quality and service efficiency enhance student satisfaction and mediate the impact of service quality on word-of-mouth intentions (Rasheed & Rashid, 2023). Universities' structural models also confirm that satisfaction and image or reputation hold central conduit roles from perceived quality to loyalty and recommendation (Alves & Raposo, 2006; Thomas, 2011). Despite this, most studies stop at satisfaction and image, under-theorizing deeper psychological mechanisms that connect service experiences to advocacy. Social Identity Theory and identification-based frameworks provide that missing psychological link. Organizational identification has been conceptualized as a perception of oneness with the organization, and stronger identification increases support, commitment and congruent behaviors (Ashforth & Mael, 1989). Consumer-company identification similarly suggests that when an organizational identity is attractive, coherent and trustworthy, repeated interactions lead individuals to identify with the organization, producing loyalty, active promotion and customer recruitment (Bhattacharya & Sen, 2003). In universities, high service quality through superior teaching, efficient support and reliable information elevates perceived competence, image and prestige, making the university identity more attractive and trustworthy and

deepening students' embeddedness via frequent, meaningful contact (Alves & Raposo, 2006; Rasheed & Rashid, 2023). Within this identification framework, service quality fosters student-university identification, which consequently motivates students to advocate for their university. Thus, the following hypothesis is proposed:

H14. *Student-university identification mediates the relationship between service quality and student advocacy.*

Figure 1 shows proposed research model.

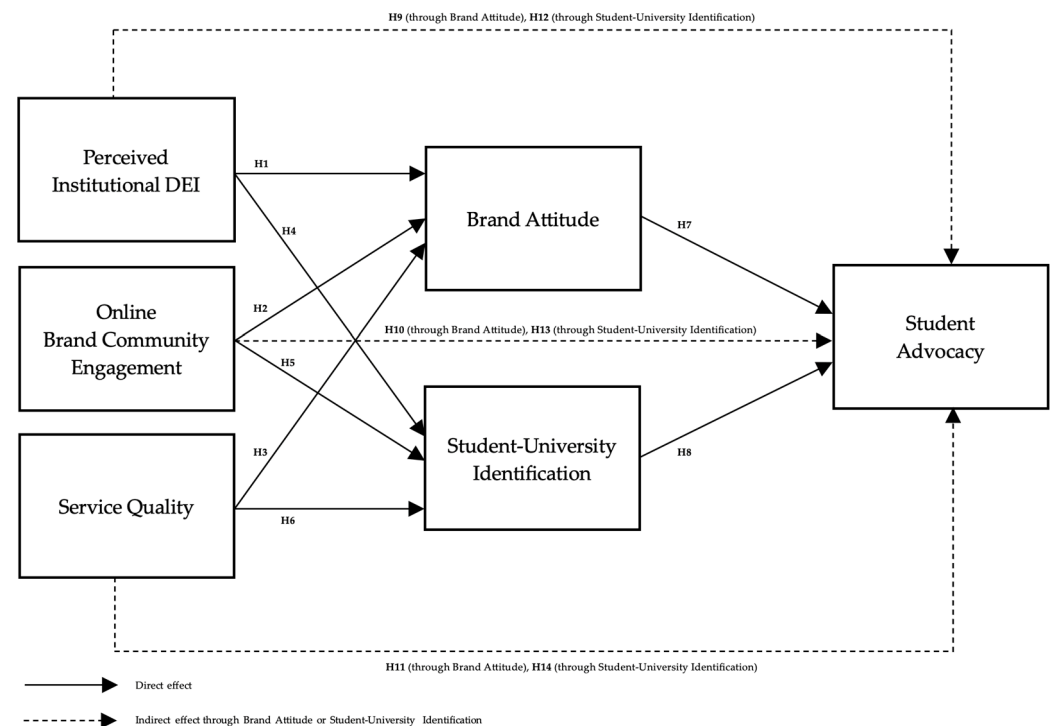


Figure 1. Research Model.

3. Methodology

3.1. Research Design

This study employed a quantitative survey design to examine the relationships among perceived institutional DEI, online brand community engagement, service quality, brand attitude, student-university identification, and student advocacy. The study was grounded in the Stimulus-Organism-Response (S-O-R) framework and Social Identity Theory (SIT). In line with the proposed conceptual model, perceived institutional DEI, online brand community engagement, and service quality were modeled as exogenous constructs, whereas brand attitude and student-university identification were specified as mediating constructs and student advocacy was treated as the ultimate endogenous construct. The empirical setting of the study was a university in Greece. In line with research ethics and institutional confidentiality considerations, the name of the university is not disclosed. The study focused on students enrolled at this institution, as they are directly exposed to institutional values, service experiences, and university-related online interactions, and are therefore well positioned to evaluate the proposed relationships. Given the exploratory orientation of the study and its prediction-focused objective, partial least squares structural equation modeling (PLS-SEM) was considered appropriate for testing the proposed model (Hair et al., 2019, 2021). This approach is particularly suitable for research models that include multiple direct and indirect relationships and that aim to explain variance in key endoge-

nous constructs rather than only reproduce a covariance matrix (Hair et al., 2019; Henseler et al., 2009). Accordingly, the study adopted a theory-driven quantitative design to assess the proposed hypotheses within the higher education context.

3.2. Measurement Instruments

All constructs in the study were measured using multi-item scales adapted from prior studies and contextualized for the higher education setting. Brand attitude (BA) was measured using five items adapted from Spears and Singh (2004). Student-university identification (SUI) was measured using six items adapted from Mael and Ashforth (1992). Student advocacy (SA) was measured using six items adapted from T. J. Brown et al. (2005). Perceived institutional DEI (PDEI) was measured using four items adapted from McKay et al. (2007). Online brand community engagement (OBCE) was measured using eight items adapted from Hollebeek (2014) and Algesheimer et al. (2005). Service quality (SQ) was measured using six items adapted from Abdullah (2006). More specifically, BA captured students' overall favorable evaluations of their university as a brand. SUI reflected students' perceived oneness, psychological attachment, and sense of belonging to their university. SA captured students' willingness to recommend the university, speak positively about it, and support it within their networks. PDEI assessed students' perceptions of the university's commitment to diversity, equity, and inclusion through its values, practices, and institutional environment. OBCE measured students' cognitive, emotional, and behavioral engagement with university-related online brand communities. SQ assessed students' evaluations of the quality of university-related services. All items were measured using a five-point Likert-type scale ranging from 1: strongly disagree to 5: strongly agree. The wording of the items was adapted to fit the higher education context while preserving the conceptual meaning of the original measures. In line with the theoretical specification of the model, all constructs were modeled as reflective constructs.

3.3. Questionnaire Development and Pretesting

The questionnaire was developed by adapting established scales from prior studies and aligning the wording of the items with the higher education context of the study. Because the survey was administered in a Greek higher education setting, the questionnaire was prepared in Greek. To enhance linguistic accuracy and contextual appropriateness, the Greek translation was reviewed with expert input. In line with established recommendations for cross-cultural adaptation of self-report measures, particular attention was given to conceptual equivalence, clarity of wording, and contextual relevance during the adaptation process (Beaton et al., 2000; Brislin, 1970). Before the main data collection, a pilot study was conducted with 35 respondents to assess the clarity, readability, and overall flow of the questionnaire. The pilot phase was used to identify potentially ambiguous wording, evaluate the logical sequence of the items, and ensure that the Greek version of the instrument was comprehensible for the target student population. Based on the feedback obtained during the pilot stage, only minor refinements were introduced before the final administration. The final questionnaire therefore reflected both prior validated measurement scales and contextual adaptation to the Greek higher education setting.

3.4. Sampling and Data Collection

The target population of the study consisted of university students enrolled at a university in Greece. In line with research ethics and institutional confidentiality considerations, the name of the university is not disclosed. University students were considered an appropriate population for this study because they are directly exposed to institutional values, service experiences, and university-related online interactions, and are therefore well positioned to evaluate the proposed relationships among perceived institutional DEI,

online brand community engagement, service quality, brand attitude, student-university identification, and student advocacy.

Data were collected through an online self-administered questionnaire using Google Forms. Participation was limited to students who were currently enrolled at the focal university, and enrolment at this institution constituted the main eligibility criterion for inclusion in the study. Accordingly, the study relied on a non-probability sampling approach based on this eligibility criterion. A total of 217 usable responses were retained for the final analysis.

The adequacy of the sample size was assessed by considering both the analytical requirements of partial least squares structural equation modeling (PLS-SEM) and an a priori statistical power analysis. Given the exploratory orientation of the study, the prediction-focused objective of the model, and the inclusion of multiple direct and indirect relationships, PLS-SEM was considered an appropriate analytical approach (Hair et al., 2019, 2021). In determining the minimum sample size, the construct receiving the highest number of structural paths was taken as the basis. In the present model, the maximum number of predictors pointing at an endogenous construct was three. Accordingly, an a priori power analysis was conducted in G*Power 3.1 using a linear multiple regression fixed model, with three predictors, a medium effect size ($f^2 = 0.15$), a significance level of 0.05, and a statistical power of 0.95. Under these assumptions, the minimum required sample size was 119. This benchmark is commonly reported in G*Power-based multiple regression calculations with the same parameter set. Since the final sample consisted of 217 respondents, the study exceeded the recommended minimum sample size and the collected data were considered sufficient for testing the proposed model (Faul et al., 2009).

3.5. Common Method Bias

Because all constructs in the study were measured using self-reported data collected from the same respondents through a single questionnaire, the potential for common method bias (CMB) was taken into consideration. To reduce this risk procedurally, the questionnaire items were adapted from established scales, the wording of the items was reviewed carefully during the translation and pretesting stages, and the final survey was administered in a standardized format. In addition, respondents were informed that their answers would be used for academic purposes only, which helped reduce evaluation apprehension and encouraged more accurate responses. To assess whether common method bias posed a serious concern, Harman's single-factor test was performed. The results indicated that no single factor accounted for the majority of the total variance, suggesting that common method bias was unlikely to threaten the validity of the findings (Podsakoff et al., 2003). In addition, collinearity statistics were examined, and the variance inflation factor (VIF) values ranged from 1.419 to 2.313, remaining below the threshold suggested by Kock (2015). This provides further evidence that common method bias was not a serious concern in the present study.

3.6. Data Analysis Strategy

Data analysis was conducted using SmartPLS 4.1.1.6 following the two-step approach commonly recommended for partial least squares structural equation modeling (PLS-SEM) (Hair et al., 2019, 2021). In the first stage, the measurement model was assessed to examine indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Indicator reliability was evaluated through the outer loadings of the items. Internal consistency reliability was assessed using Cronbach's alpha and composite reliability (CR), while convergent validity was examined through the average variance extracted (AVE). Discriminant validity was assessed using the Fornell-Larcker criterion and the

heterotrait-monotrait ratio (HTMT). In the second stage, the structural model was assessed by examining path coefficients and the explanatory power of the model. The significance of the hypothesized direct and indirect relationships was tested using the bootstrapping procedure. In addition, the coefficient of determination (R^2) was used to assess the variance explained in the endogenous constructs, and the mediating roles of brand attitude and student-university identification were examined through the significance of the indirect effects. Given the exploratory orientation of the study and the model's prediction-focused objective, PLS-SEM was considered appropriate for simultaneously estimating the proposed relationships among the constructs (Hair et al., 2019, 2021).

4. Findings

4.1. Participants' Profile

The sample consisted of 217 students enrolled at the focal university in Greece. It should further be noted that this university has no institutional affiliation with the authors, as it is neither the institution where they are employed nor one where they pursued their education. The respondents had a mean age of 22.07 years ($SD = 1.96$), with ages ranging from 18 to 35 years. In terms of gender, the sample was predominantly female ($n = 131$, 60.4%), followed by male respondents ($n = 75$, 34.6%). A smaller number of participants identified as non-binary ($n = 4$, 1.8%), preferred not to disclose their gender ($n = 6$, 2.8%), and one respondent (0.5%) selected a mixed gender category. With regard to level of study, the vast majority of respondents were undergraduate students ($n = 202$, 93.1%), while 10 respondents (4.6%) were postgraduate students, 4 respondents (1.8%) were doctoral students, and 1 respondent (0.5%) indicated both undergraduate and postgraduate status. Regarding years of study at the university, most participants were in their fourth year ($n = 107$, 49.3%) or third year ($n = 68$, 31.3%), followed by second-year ($n = 17$, 7.8%), fifth-year ($n = 10$, 4.6%), and first-year students ($n = 8$, 3.7%), while 7 respondents (3.2%) did not report their year of study. Table 1 presents a concise descriptive profile of the participants, including sample size, age, gender distribution, level of study, and year of study.

Table 1. Concise descriptive profile of participants.

Characteristic	Summary
Sample size	$N = 217$
Age	$M = 22.07$, $SD = 1.96$, range = 18–35
Gender	Female: 60.4%; Male: 34.6%; Other/prefer not to disclose: 5.1%
Level of study	Undergraduate: 93.1%; Postgraduate/doctoral/other: 6.9%
Year of study	Fourth year: 49.3%; Third year: 31.3%; Other/not reported: 19.4%

4.2. Measurement Model Assessment

Before testing the structural relationships, the measurement model was assessed to examine the reliability and validity of the reflective constructs included in the study. In line with commonly recommended PLS-SEM procedures, the assessment focused on indicator reliability, internal consistency reliability, convergent validity, and discriminant validity.

Table 2 presents the results for indicator reliability, internal consistency reliability, and convergent validity. As shown in the table, all item loadings exceeded the acceptable threshold, ranging from 0.701 to 0.892, indicating satisfactory indicator reliability. Cronbach's alpha values ranged from 0.873 to 0.942, while composite reliability values ranged from 0.904 to 0.952, confirming satisfactory internal consistency reliability across all constructs.

The AVE values ranged from 0.613 to 0.731, all exceeding the recommended threshold of 0.50, thereby supporting convergent validity.

Table 2. Reliability and convergent validity results.

Construct	Item	Loading	Cronbach's Alpha	rho_A	CR (rho_C)	AVE
BA	BA1	0.840	0.894	0.897	0.922	0.703
	BA2	0.849				
	BA3	0.856				
	BA4	0.851				
	BA5	0.793				
PDEI	PDEI1	0.854	0.877	0.878	0.916	0.731
	PDEI2	0.870				
	PDEI3	0.826				
	PDEI4	0.870				
OBCE	OBCE1	0.773	0.942	0.944	0.952	0.712
	OBCE2	0.830				
	OBCE3	0.868				
	OBCE4	0.875				
	OBCE5	0.832				
	OBCE6	0.860				
	OBCE7	0.873				
	OBCE8	0.833				
SQ	SQ1	0.839	0.921	0.925	0.939	0.719
	SQ2	0.750				
	SQ3	0.875				
	SQ4	0.873				
	SQ5	0.852				
	SQ6	0.892				
SA	SA1	0.813	0.873	0.880	0.904	0.613
	SA2	0.823				
	SA3	0.831				
	SA4	0.705				
	SA5	0.813				
	SA6	0.701				
SUI	SUI1	0.841	0.899	0.900	0.922	0.664
	SUI2	0.778				
	SUI3	0.826				
	SUI4	0.834				
	SUI5	0.835				
	SUI6	0.773				

Note. BA = brand attitude; PDEI = perceived institutional DEI; OBCE = online brand community engagement; SQ = service quality; SA = student advocacy; SUI = student-university identification; CR = composite reliability; AVE = average variance extracted.

Table 3 reports the results of the Fornell-Larcker criterion. The results show that the square root of the AVE for each construct was greater than its correlations with the remain-

ing constructs. This finding indicates that each construct shared more variance with its own indicators than with other constructs in the model, thus supporting discriminant validity.

Table 3. Discriminant validity assessment using the Fornell-Larcker criterion.

Construct	BA	PDEI	OBCE	SQ	SA	SUI
BA	0.838					
PDEI	0.657	0.855				
OBCE	0.599	0.641	0.844			
SQ	0.634	0.714	0.637	0.848		
SA	0.678	0.698	0.746	0.646	0.783	
SUI	0.544	0.587	0.698	0.538	0.719	0.815

Note. Diagonal elements in bold represent the square root of the AVE for each construct.

Table 4 presents the HTMT ratios as an additional assessment of discriminant validity. The HTMT values ranged from 0.582 to 0.815, remaining below the commonly accepted threshold. This further confirms that the constructs were empirically distinct from one another.

Table 4. Discriminant validity assessment using HTMT ratios.

Construct	BA	PDEI	OBCE	SQ	SA	SUI
BA	BA					
PDEI	PDEI	0.738				
OBCE	OBCE	0.647	0.700			
SQ	SQ	0.697	0.791	0.681		
SA	SA	0.756	0.794	0.815	0.714	
SUI	SUI	0.596	0.655	0.754	0.582	0.805

Note. BA = brand attitude; PDEI = perceived institutional DEI; OBCE = online brand community engagement; SQ = service quality; SA = student advocacy; SUI = student-university identification.

Taken together, the results reported in Tables 1–3 indicate that the measurement model demonstrated satisfactory reliability and validity, providing adequate support for proceeding to the structural model assessment.

4.3. Structural Model Assessment

After establishing the adequacy of the measurement model, the structural model was assessed in order to test the proposed hypotheses and evaluate the explanatory power of the model. Table 5 presents the results for the hypothesized direct effects.

Table 5 presents the results for the hypothesized direct effects. The findings show that perceived institutional DEI positively affected brand attitude and student-university identification, supporting H1 and H4. Online brand community engagement also had positive and significant effects on brand attitude and student-university identification, supporting H2 and H5. Service quality had a positive and significant effect on brand attitude, supporting H3, but its effect on student-university identification was not significant, leading to the rejection of H6. In addition, both brand attitude and student-university identification had positive and significant effects on student advocacy, supporting H7 and H8.

Table 5. Hypothesis testing results for direct effects.

Hypothesis	Path	β	<i>t</i> -Value	<i>p</i> -Value	Result
H1	PDEI → BA	0.332	3.877	0.000	Supported
H2	OBCE → BA	0.224	2.536	0.011	Supported
H3	SQ → BA	0.255	2.735	0.006	Supported
H4	PDEI → SUI	0.212	2.807	0.005	Supported
H5	OBCE → SUI	0.532	7.297	0.000	Supported
H6	SQ → SUI	0.048	0.588	0.556	Not supported
H7	BA → SA	0.408	7.644	0.000	Supported
H8	SUI → SA	0.497	10.216	0.000	Supported

Note. BA = brand attitude; PDEI = perceived institutional DEI; OBCE = online brand community engagement; SQ = service quality; SUI = student-university identification; SA = student advocacy.

In terms of explanatory power, the model accounted for 51.4% of the variance in brand attitude ($R^2 = 0.514$), 52.1% of the variance in student-university identification ($R^2 = 0.521$), and 63.4% of the variance in student advocacy ($R^2 = 0.634$), indicating satisfactory explanatory power for the endogenous constructs. With respect to effect sizes, online brand community engagement exerted a medium effect on student-university identification ($f^2 = 0.310$), while student-university identification had a large effect on student advocacy ($f^2 = 0.475$). In addition, brand attitude showed a medium effect on student advocacy ($f^2 = 0.320$). By contrast, the effect of service quality on student-university identification was negligible ($f^2 = 0.002$), which is consistent with the non-significant finding for H6. The remaining effects were small, with f^2 values ranging from 0.040 to 0.098.

The explained variance values indicate that the model has meaningful explanatory power for the endogenous constructs. Specifically, the model explains 51.4% of the variance in brand attitude, 52.1% of the variance in student-university identification, and 63.4% of the variance in student advocacy. These values suggest that the proposed institutional stimuli and organismic mechanisms account for a substantial proportion of students' evaluative, identity-based, and advocacy-related responses.

The f^2 values further clarify the relative contribution of each predictor. Student-university identification showed the strongest effect on student advocacy ($f^2 = 0.475$), followed by brand attitude on student advocacy ($f^2 = 0.320$), indicating that both identity-based and evaluative mechanisms are important, with identification exerting the stronger effect. Online brand community engagement also showed a notable effect on student-university identification ($f^2 = 0.310$), confirming its central role in shaping identity-based attachment. By contrast, perceived institutional DEI had small effects on brand attitude ($f^2 = 0.098$) and student-university identification ($f^2 = 0.040$), while service quality had a small effect on brand attitude ($f^2 = 0.058$) but a negligible effect on student-university identification ($f^2 = 0.002$). This pattern supports the interpretation that service quality contributes mainly to favorable brand evaluation rather than identity-based attachment.

Because the primary objective of this study is explanatory and theory-driven rather than prediction-oriented, the structural assessment focuses on path coefficients, mediation effects, explained variance, effect sizes, and model fit. Future research could extend this work by applying PLSpredict or other out-of-sample predictive assessment procedures to evaluate the model's predictive performance in different higher education contexts.

Model fit was also examined to provide an overall indication of the adequacy of the estimated model. The results showed an SRMR value of 0.071 for the estimated model and 0.060 for the saturated model. In addition, the NFI values were 0.807 for the estimated model and 0.812 for the saturated model. The discrepancy measures were $d_ULS = 3.147$

and $d_G = 1.069$ for the estimated model, compared with $d_{ULS} = 2.249$ and $d_G = 1.015$ for the saturated model. Taken together, these values suggest an acceptable model fit.

In addition to the direct effects, the mediating roles of brand attitude and student-university identification were assessed through the significance of the indirect effects.

Table 6 presents the results for the hypothesized mediation effects. The findings indicate that brand attitude significantly mediated the effects of perceived institutional DEI, online brand community engagement, and service quality on student advocacy, supporting H9, H10, and H11. Student-university identification also significantly mediated the relationships between perceived institutional DEI and student advocacy and between online brand community engagement and student advocacy, supporting H12 and H13. However, the indirect effect of service quality on student advocacy through student-university identification was not significant, and therefore H14 was not supported.

Table 6. Hypothesis testing results for indirect effects.

Hypothesis	Path	β	<i>t</i> -Value	<i>p</i> -Value	Result
H9	PDEI → BA → SA	0.135	3.299	0.001	Supported
H10	OBCE → BA → SA	0.091	2.364	0.018	Supported
H11	SQ → BA → SA	0.104	2.512	0.012	Supported
H12	PDEI → SUI → SA	0.105	2.729	0.006	Supported
H13	OBCE → SUI → SA	0.264	5.424	0.000	Supported
H14	SQ → SUI → SA	0.024	0.583	0.560	Not supported

5. Discussion

5.1. Key Findings

This study examined how perceived institutional DEI, online brand community engagement, and service quality influence student advocacy through brand attitude and student-university identification in the higher education context. Overall, the findings supported 12 of the 14 hypotheses, suggesting that the proposed framework offers substantial explanatory power for understanding advocacy-related student outcomes.

In relation to RQ1, the findings show that perceived institutional DEI, online brand community engagement, and service quality all positively influence students' brand attitudes toward their university. This indicates that students' evaluative responses to the university brand are shaped not only by functional service performance but also by value-laden institutional signals and digital engagement experiences.

In relation to RQ2, the results indicate that perceived institutional DEI and online brand community engagement significantly strengthen student-university identification, whereas service quality does not. This finding suggests that identity-based attachment to the university is more strongly shaped by inclusive institutional values and participatory online interactions than by service quality alone.

In relation to RQ3, both brand attitude and student-university identification positively influence student advocacy, with student-university identification emerging as the stronger predictor. This demonstrates that advocacy in higher education is driven by both favorable evaluations of the institution and deeper identity-based attachment.

Finally, in relation to RQ4, the mediation results show that brand attitude mediates the effects of perceived institutional DEI, online brand community engagement, and service quality on student advocacy. Student-university identification, however, mediates only the effects of perceived institutional DEI and online brand community engagement on student advocacy, while the indirect effect of service quality through student-university

identification is not significant. These findings indicate that evaluative and identity-based pathways operate differently in translating institutional stimuli into student advocacy.

Beyond the statistical confirmation of individual paths, the findings should be interpreted as evidence that student advocacy in higher education is shaped by two qualitatively different mechanisms. The first is an evaluative mechanism, through which students form favorable attitudes toward the university based on institutional signals such as DEI, online engagement, and service quality. The second is an identity-based mechanism, through which students develop a sense of belonging and psychological attachment to the university. The results suggest that these mechanisms are not interchangeable. Service quality appears to contribute mainly to favorable evaluation, whereas perceived institutional DEI and online brand community engagement are more capable of activating both evaluation and identification. This distinction is theoretically important because it shows that advocacy does not emerge only from students' satisfaction with institutional performance, but also from whether students perceive the university as inclusive, socially meaningful, and identity-relevant.

A first important finding is that perceived institutional DEI, online brand community engagement, and service quality all positively influenced brand attitude. This result is consistent with prior higher education and branding research showing that students' evaluations of universities are shaped by both functional and symbolic aspects of the institutional experience (R. M. Brown & Mazzarol, 2009; Perera et al., 2023; Sultan & Wong, 2013). The significance of service quality confirms the continued importance of academic, administrative, and institutional performance in forming favorable evaluations of the university. At the same time, the significant effects of perceived institutional DEI and online brand community engagement indicate that students' brand-related evaluations are also shaped by inclusion-related institutional signals and interactive digital experiences. In particular, the effect of perceived institutional DEI extends earlier work by showing that DEI is not merely an internal or policy-oriented issue, but also a meaningful university signal that shapes how students evaluate the institution as a brand (Ferraro et al., 2023; T. D. Nguyen et al., 2024).

A second major finding concerns the antecedents of student-university identification. The results showed that perceived institutional DEI and online brand community engagement significantly enhanced student-university identification, whereas service quality did not. The positive effect of perceived institutional DEI is in line with research suggesting that inclusive climates, fairness, and diversity-supportive environments strengthen students' sense of belonging and attachment to the university (Allen et al., 2024; Chat-topadhyay, 2022; T. D. Nguyen et al., 2024). Similarly, the strong positive effect of online brand community engagement supports earlier studies indicating that repeated interaction in university-related digital spaces can strengthen connection, shared meaning, and institutional attachment (Fujita, 2018; Perera et al., 2023; Xiao et al., 2023). Notably, online brand community engagement emerged as the strongest predictor of student-university identification, suggesting that identity formation in contemporary higher education is increasingly shaped by interactive and participatory digital environments.

By contrast, the non-significant effect of service quality on student-university identification is theoretically revealing. Although service quality has often been linked to satisfaction, trust, image, and loyalty-related outcomes in higher education (R. M. Brown & Mazzarol, 2009; Sultan & Wong, 2013), the present findings suggest that it may not be sufficient to generate deeper identity-based attachment. In other words, students may acknowledge high-quality services without necessarily incorporating the university into their self-concept. This distinction is important because it reinforces the difference between positive evaluation and identification: the former may arise from functional performance,

whereas the latter appears to depend more strongly on belonging, value congruence, and symbolic alignment (Mael & Ashforth, 1992; Pinna et al., 2017).

This finding can also be understood in relation to prior higher education studies, which have generally shown that service quality contributes to satisfaction, trust, institutional image, perceived value, and loyalty-related intentions. These outcomes are primarily evaluative or transactional in nature, whereas student-university identification reflects a deeper identity-based bond through which students incorporate the university into their self-concept. From this perspective, high-quality services may lead students to evaluate the university more favorably without necessarily making the institution identity-relevant to them. This interpretation is consistent with the present findings, where service quality significantly influenced brand attitude but did not significantly influence student-university identification.

The Greek higher education context may also help explain this pattern. In this setting, students may experience the university primarily as an educational institution whose core academic and administrative services are expected to function adequately, rather than as a highly differentiated market brand. From this perspective, service quality may operate as a baseline condition that shapes favorable evaluation, but it may not be distinctive or symbolic enough to generate student-university identification. By contrast, perceived institutional DEI and online brand community engagement may be more identity-relevant because they communicate values, inclusion, participation, and social connection. This contextual interpretation suggests that the formation of student-university identification may depend not only on service performance but also on whether students perceive the institution as socially meaningful and personally relevant.

A third important finding is that both brand attitude and student-university identification positively influenced student advocacy, with student-university identification exerting the stronger effect. This result aligns with prior higher education research showing that favorable institutional evaluations encourage recommendation intentions, positive word-of-mouth, and supportive behaviors (Cassidy, 2013; Helgesen & Nesset, 2007), while also supporting identity-based arguments that students who feel psychologically attached to their university are more likely to act in ways that support and promote it (Mael & Ashforth, 1992; N. Nguyen & LeBlanc, 2001). The stronger effect of student-university identification suggests that advocacy in higher education is not only evaluative but also identity-based. Students do not simply advocate for institutions they like; they are especially likely to advocate for institutions with which they feel affiliated.

The mediation results further clarify these relationships. Brand attitude significantly mediated the effects of perceived institutional DEI, online brand community engagement, and service quality on student advocacy, suggesting that evaluative processes constitute a central pathway through which institutional signals are translated into supportive behavior. At the same time, student-university identification significantly mediated the effects of perceived institutional DEI and online brand community engagement, but not those of service quality. This pattern indicates that identity-based mechanisms are activated more strongly by value-laden and socially interactive institutional experiences than by service performance alone. Taken together, the findings suggest that the organism component of the model is best understood as dual in nature: brand attitude represents the evaluative route to advocacy, whereas student-university identification represents the deeper identity-based route.

5.2. Theoretical Implications

The main theoretical contribution of this study lies in repositioning perceived institutional DEI as a branding-relevant institutional signal that can shape student advocacy

in higher education. Rather than treating DEI only as an internal policy, compliance, or campus-climate issue, this study conceptualizes students' perceptions of DEI as an institutional stimulus that influences advocacy through both evaluative and identity-based mechanisms. In doing so, the study advances higher education branding research by showing that student advocacy is not produced only by service quality, satisfaction, or institutional image, but also by students' interpretation of inclusive institutional values. This contribution is particularly important because it connects the DEI literature with student advocacy research and explains how value-laden institutional signals become behaviorally meaningful within a branding framework. This study makes several contributions to the literature on higher education marketing, institutional branding, and student behavior.

First, it extends existing research on student outcomes in higher education by incorporating DEI as a value-laden institutional signal within a marketing-oriented behavioral framework. Earlier work has largely emphasized functional dimensions such as service quality, image, and satisfaction as drivers of student loyalty-related outcomes (R. M. Brown & Mazzarol, 2009; Sultan & Wong, 2013). The present findings show that institutional values also matter. By demonstrating that perceived institutional DEI significantly influences both brand attitude and student-university identification, the study broadens the higher education marketing literature beyond functional service performance and highlights the relevance of inclusive institutional values for shaping student responses.

Second, the study contributes to the literature on identity-based mechanisms in higher education. Previous studies have emphasized the role of student-university identification in explaining commitment, participation, and supportive behavior (Pinna et al., 2017; Wilkins et al., 2016; Özer et al., 2023). The present findings extend this literature by showing that student-university identification operates not only as a direct predictor of student advocacy, but also as a mediator linking institutional stimuli to advocacy outcomes. In doing so, the study reinforces the relevance of Social Identity Theory for understanding how students internalize institutional meanings and translate them into promotive behavior.

Third, the study contributes to the literature on online brand communities in higher education by demonstrating that online brand community engagement is especially influential in shaping student-university identification. This finding suggests that digital engagement should not be understood only as a communication or promotional mechanism, but also as a relational and identity-forming process. In the higher education context, online brand communities appear to function as social spaces in which students interpret institutional narratives, interact with peers, and strengthen their sense of institutional belonging (Wong, 2025).

Fourth, the study contributes by integrating the S-O-R framework with Social Identity Theory. The findings show that institutional stimuli such as DEI, online brand engagement, and service quality influence advocacy through two distinct internal mechanisms: an evaluative mechanism captured by brand attitude and an identity-based mechanism captured by student-university identification. This distinction offers a more nuanced explanation of how institutional cues are internalized and translated into student behavior.

Finally, the study contributes to the emerging literature on student advocacy as a higher education branding outcome. Although prior research has focused on related constructs such as satisfaction, loyalty, and word-of-mouth (Cassidy, 2013; Helgesen & Nesset, 2007), fewer studies have explicitly modeled the psychological processes through which institutional signals lead to advocacy. The present findings show that advocacy is shaped through both evaluative and identity-based pathways, thereby offering a more differentiated account of how supportive student behavior develops.

5.3. Practical Implications

The findings offer several practical implications for university administrators, marketing professionals, and higher education policymakers.

First, the results underscore the strategic importance of DEI in universities' institutional positioning and branding efforts. Because perceived institutional DEI significantly influenced both brand attitude and student-university identification, universities should not treat DEI solely as a compliance issue. Instead, inclusive values should be embedded in institutional communication, student support practices, and campus culture in visible ways. When students perceive DEI as genuine and institutionally enacted, they are more likely to evaluate the university positively and to feel more strongly connected to it.

Second, the results highlight the role of online brand community engagement as a driver of student-university relationships. Since online engagement emerged as the strongest predictor of student-university identification, universities should treat social media and digital communities not only as channels for information dissemination, but also as spaces for interaction, participation, and shared storytelling. Student-generated content, interactive campaigns, and peer-oriented engagement initiatives may help strengthen students' attachment to the institution and, in turn, advocacy.

Third, the findings show that service quality remains important but is not sufficient on its own to generate deeper identity-based attachment. Although service quality significantly influenced brand attitude, it did not significantly affect student-university identification. This suggests that high-quality services may improve students' evaluations of the institution without necessarily producing a strong sense of belonging or oneness. Universities should therefore combine service improvements with strategies that foster participation, inclusion, and symbolic alignment.

Finally, because both brand attitude and student-university identification significantly influenced student advocacy, universities should seek to strengthen both evaluative and identity-based relationships with students. In practice, this means that institutions should combine reliable service performance with value-based communication and opportunities for meaningful engagement. Such an approach is more likely to cultivate not only satisfied students, but also students who actively recommend and support the university.

More concretely, universities can operationalize DEI by moving beyond general value statements and embedding inclusion into visible student-facing practices. This may include regularly collecting student feedback on inclusion and belonging, ensuring that support services are accessible to diverse student groups, communicating DEI-related actions transparently, and involving students in the design and evaluation of inclusion initiatives. Such practices can help students perceive DEI as an enacted institutional commitment rather than a symbolic message.

Universities can also strengthen online brand communities by shifting from one-way institutional communication to participatory digital engagement. For example, institutions may encourage student-generated content, peer-to-peer interaction, moderated online communities, student ambassador programs, and storytelling campaigns that highlight diverse student experiences. These initiatives can make online spaces more relational and identity-relevant, thereby strengthening student-university identification.

Finally, student engagement can be transformed into advocacy by creating structured opportunities for students to share positive experiences and support the university publicly. Universities may develop student advocacy or ambassador schemes, invite students to contribute testimonials, involve engaged students in recruitment events, and connect current students with prospective students through mentoring or digital Q&A formats. These practices can convert favorable attitudes and identification into visible advocacy behaviors such as recommendation, positive word-of-mouth, and institutional support.

5.4. Limitations and Directions for Future Research

Despite its contributions, the study has several limitations. First, the data were collected from students at a single university, which may limit the generalizability of the findings to other institutional contexts. Universities differ in terms of student composition, organizational culture, and strategic positioning, and these differences may shape how students interpret institutional signals. Future research could test the model across multiple institutions or across different higher education systems. Second, the study relied on a single-source survey design, which restricts the strength of causal inference that can be drawn from the findings. Although the proposed relationships are theoretically grounded, future studies could use longitudinal designs to examine how attitudes, identification, and advocacy evolve over time. Third, the model focused on three institutional stimuli, perceived institutional DEI, online brand community engagement, and service quality. Other institutional signals, such as prestige, employability outcomes, or sustainability-related positioning, may also be relevant for explaining student advocacy and could be incorporated in future models. Finally, the study focused on current students, whereas advocacy is also highly relevant among alumni. Future research could extend the present framework to alumni populations in order to examine whether the same evaluative and identity-based mechanisms explain longer-term advocacy and institutional support. Taken together, these limitations point to several opportunities for future research to refine and extend understanding of how institutional signals shape student attitudes, identification, and advocacy in higher education.

Several additional limitations should also be acknowledged. First, the cross-sectional design limits the ability to make strong causal claims about the relationships among institutional stimuli, internal student responses, and advocacy behaviors. Although the proposed relationships are theoretically grounded, longitudinal designs would be useful for examining how students' perceptions of DEI, online engagement, service quality, brand attitude, and student-university identification evolve over time and how these changes shape advocacy.

Second, although procedural precautions were taken and statistical checks suggested that common method bias was not a serious threat, the use of a single self-administered questionnaire means that common method variance cannot be completely ruled out. Future studies could reduce this risk further by collecting data from multiple sources, separating the measurement of predictors and outcomes over time, or combining survey data with behavioral indicators of student advocacy.

Third, the study relied on self-reported measures. While this approach is appropriate for capturing students' perceptions of DEI, service quality, brand attitude, and identification, it may also be affected by subjective interpretation or social desirability. Future research could complement self-reported data with objective or behavioral measures, such as participation in online communities, referral behavior, or actual advocacy activities.

Fourth, the findings should be interpreted considering the Greek higher education context and the single-university setting. Cultural and institutional characteristics may shape how students interpret DEI, online engagement, service quality, and identification. Therefore, the results may not be directly generalizable to other national higher education systems or institution types. Future studies should test the model across different countries, public and private institutions, and more diverse student populations to assess the robustness and boundary conditions of the findings.

Despite these limitations, the study offers broader implications for higher education branding theory and student-advocacy research. The findings show that student advocacy is shaped not only by functional evaluations of service quality, but also by value-laden and relational institutional signals. By positioning perceived institutional DEI and online brand

community engagement alongside service quality, the study demonstrates that students' supportive behaviors emerge through both evaluative and identity-based pathways. This distinction extends student-advocacy research by showing that students advocate for universities not only when they evaluate them positively, but also when they perceive them as inclusive, participatory, and identity-relevant institutions.

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