

# **The Impact of Social Interactions During Onboarding Programs on Students' Fee-paying Behavior**

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## **Summary/Abstract**

Drawing on the need-to-belong theory together with prominent concepts from service marketing, this article investigates the impact of human interactions during onboarding programs on student satisfaction as well as the latter's influence on students' prosocial behavior and brand preference. It then examined the impact of prosocial behavior and brand preference on student fee-paying behavior. Such research is warranted as there is a critical need to offer academics and practitioners insights into effective student recruitment practices in the highly competitive higher education environment. 367 responses were captured from participants in an onboarding program. Structural equation modeling (SEM) was used to analyze the data. Financial records were used to confirm students' admission. The results confirmed the effectiveness of social interactions, especially with fellow students, on student satisfaction and found that student satisfaction drives students' prosocial behavior and brand preference. The latter constructs were found to be predictors of fee payment.

**Keywords:** *social interactions, onboarding programs, university brand, university brand preference, prosocial behavior, student satisfaction*

**Track:** Marketing and Retail

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## Introduction

University education is widely accepted as a major driver for global development in terms of developing both the graduate attributes necessary for workforce and economic progression and scientific innovation through academic research contributions. The purchase of university brand benefits is of a unique nature, as it involves the sacrifice of considerable time, effort, and money. Although the ordinary consumer expects to be compensated fairly, consumers of university brands do not know what benefits to expect in return, as university brands sell opportunities, but by no means guarantee them (Canterbury, 2000). Furthermore, the risks associated are therefore extremely high and justify the consensus regarding university education service as an extreme point on the intangibility continuum. It is our view that research in marketing for higher education in general, and specifically effective student recruitment practices, is an area in which too much heat has been generated while too little light has been shed.

The rationale behind this research is threefold. First, a common industry practice is to offer onboarding programs, during which prospective students get a taste of what to expect during their transition from high school to the undergraduate environment. This evaluation step is a context-specific addition to the alternative evaluation stage of the classical decision-making process (Stankevich, 2017) and has to date not received sufficient academic attention; thus, it warrants further research, especially due to the pure-service nature of education being highly dependent on people and process as one of the most highly intangible service offerings, dominated by experience and credence (Elsharnouby, 2016). Second, given the complexity of university brands being composed of sub-brands (colleges, programs, and majors) and the need for communication with different stakeholders (students, parents, and employers; Missaghian and Pizarro Milian, 2019), it is rational to study effective recruitment tools that can offer practitioners insights (e.g., onboarding events). Given the increasing competitive landscape, with the declining numbers of students enrolling in higher education, the shortage of public funds, the increasing adoption of market orientation as a strategy to compete within this market, and the increasing number of new university entries (Eldegwy *et al.*, 2022b, 2023; Naheen and Elsharnouby, 2021), calls for research have been issued to provide effective tools for student recruitment in Eastern markets. Finally, the marketing literature is dominated by evidence collected within the Western context, resulting in an urgent need to recognize the unique nature of the Eastern context. Eastern cultures are characterized by a more collectivist nature, which places a higher value on relationships (Burgess and Steenkamp, 2006), especially when making complex decisions (Naheen and Elsharnouby, 2021). Furthermore, prospective students in Western cultures have plenty of time to think over their university choice, reach their choice among alternative universities, and ultimately decide to enroll, unlike those in Eastern cultures, who typically suffer from a shortage of time when making such decisions (Eldegwy *et al.*, 2022b). As a result, Eastern students must make the university choice decision with fewer resources, which further exacerbates the complexity of the decision, rendering it a more emotional rather than rational decision given these limitations. Extant literature does not accommodate for the Eastern lens through which individual students are influenced by human interactions when making the university choice during their onboarding stage. Such conceptual ambiguity calls for research to review the tools used for university recruitment other than those set in stone, as suggested by the Western literature.

Previous studies have attested to the importance of interactions within services and how the service is delivered through personnel, which is possibly more important than the service itself (Sierra and

McQuitty, 2005), thereby leading to enhanced satisfaction with the service. University brands are made up of complex benefits, with academic and social benefits being the most notable as both benefits are part of a holistic experience and therefore cannot be separated. Proponents of the social benefits of education reported that some students see the process of socialization as the most important benefit of higher education (Palmer *et al.*, 2016). In the same line, Veloutsou *et al.* (2004) stated that new university students regard their studies as a social activity. Thus, it is logical to say that student satisfaction is influenced by students' sense of social belonging (Schee, 2011) and that students are typically more satisfied with universities that facilitate social interaction and collaboration among students (Elsharnouby, 2016). Satisfied consumers are more prone to exhibit highly favorable behaviors, such as prosocial behavior and brand preference. Consumers who have positively evaluated their experiences often wish to relive those experiences by continuing their relationships with the brands that they prefer; therefore, they are expected to make the purchase (university enrollment decision; Gul *et al.*, 2020).

Drawing on the need-to-belong theory and ideas from service marketing, this study examines the impact of social interactions within onboarding programs on students' satisfaction and the effect the latter has on university brand preference and prosocial behavior. The effect of these two constructs is then studied against the backdrop of students' actual registration (i.e., payment of tuition fees).

## **Theoretical Background**

### *Need-to-Belong Theory*

The literature has reported the relevance of developing relationships with students in the universities' quest to attract and retain those students (Chapleo, 2010; Eldegwy *et al.*, 2021). Recent empirical works have also proposed that certain human/social experiences within universities can attract students; such experiences include students' experiences with professors (Jillapalli and Jillapalli, 2014) and extracurricular activities (Eldegwy *et al.*, 2018).

The need-to-belong theory rests on the claim that relationship building is of great importance to humans, including new students. According to this theory, people always pursue social inclusion over exclusion, social acceptance over rejection, and group membership over isolation (Baumeister and Leary, 1995). New students are expected to feel a strong need to belong, which is an intrinsic human motivation demonstrated by humans' enduring desire to establish and maintain meaningful, lasting, and rewarding social relationships (Baumeister and Leary, 1995). The idea here is that students need to regain their social status by quickly absorbing the value system of their host universities and satisfying their unmet social relationship needs. To satisfy their need to belong, they are expected to actively seek and appreciate the establishment of meaningful social relationships with qualified, friendly, and responsive staff members and other students. Belonging has been identified as a driver for positive attitudinal and behavioral consequences, providing a strong theoretical premise upon which this study is built. It is likely that quality social interactions with academic staff and students may be a valuable clue of quality for new students. Therefore, universities have traditionally offered venues for social interactions to establish relationships with students in the form of staff–student and student–student relationships, which enhance the social interactions between the participants and lead to student satisfaction. Students who enjoy high-quality social interactions typically experience an enhanced self-esteem (i.e., self-enhancement) and heightened status among peers. Those students are more likely to exhibit prosocial behavior

toward the brand, which enhances their social status (M. D. Brown, 2000). Previous research indicates that, during the transition stage to university (i.e., the onboarding stage), students have a high sense of excitement (Pritchard *et al.*, 2007). Such excitement enhances students’ appreciation of positive emotions experienced due to the positive social relationship building and, therefore, is likely to lead to a favorable biased position toward the brand (i.e., preferring and buying the university brand; Figure I). This model is adopted from Eldegwy *et al.* (2022a), who measured conceptually similar constructs within a university onboarding event. We find a strong rationale to adopt this model given the theoretical premises offered by this model to our study due to similarities in the contextual environment (i.e., Eastern context, onboarding event) and the theoretical similarity (i.e., consumer buying behavior of university education). These relationships are discussed in the following sections.

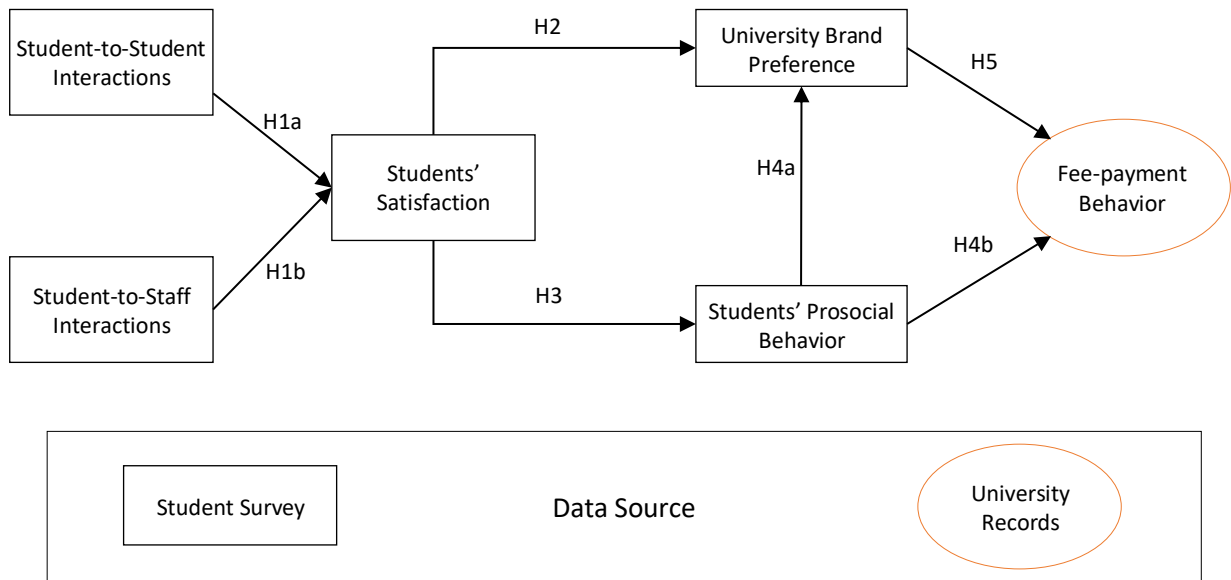


Figure I. *Conceptual model*

### *Social Interactions during University Onboarding Events*

Mainstream service marketing literature advocates the development of warm relationships to counter the service marketing challenges—namely, the intangibility and inseparability of production and consumption (Zeithaml *et al.*, 1996). Examples from the higher education context include universities that aim to be associated with personal traits, such as friendliness, in their efforts to retain and attract students (Chapleo, 2010). This exemplifies the importance of human traits and interactions in universities. Therefore, there is a reason as well as a pressing need to employ human interaction-based practices to help universities recruit students.

### Student-to-student Interactions and Satisfaction

Many researchers have investigated the nature and implications of customer-to-customer (C2C) interactions. The literature has demonstrated that positive interactions with other customers positively predict customer service evaluations, which in turn predicts favorable customer behavior (Lin *et al.*, 2020; Luo *et al.*, 2019) such as satisfaction. Students’ satisfaction is defined by Oliver (1980) as an emotional state, which is reached through the fulfillment of students’ expectations with regard to their social belonging needs through quality interactions with their

fellow students and academic staff. Support for this reasoning is based on previous studies that have theorized the importance of clues of quality, including social interaction (Sierra and McQuitty, 2005). A pertinent component of the educational process is the associations built with other students, which are viewed as a predictor of student satisfaction (Liu *et al.*, 2019). Mejia and Phelan (2014) indicated that peer influence is an indicator of students' positive student behavioral outcomes as they are likely to convince the applicants of the usefulness of such an educational program. The university experience is typically characterized by social belonging as a critical reason behind students' learning, maximal achievement, healthy development, and socialization (Liu *et al.*, 2019). Furthermore, the level to which other students are perceived to be friendly is an important predictor of students' satisfaction with their studies whereas difficulty in socially fitting in is one of the main reasons for students' negative evaluative responses (Eldegwy *et al.*, 2018). Accordingly, we hypothesize that:

Hypothesis 1a: Student-to-student interaction positively predicts student satisfaction.

#### Staff-to-student Interactions and Satisfaction

Recent work has found that positive staff interactions positively affect student satisfaction in classes (Munoz *et al.*, 2022). Therefore, universities have extended the utilization of human interaction-based practices to the onboarding stage to help recruit students through, for example, campus site visits, dean's receptions, open houses, and subject showcase programs. During these events, students can interact with staff and ascribe social value to these positive social interactions, which allow them to develop the expectation that their future social needs will be satisfied and ensure their future belonging into the new university social system. Staff who exhibit favorable traits are expected to be appreciated by students, leading to student satisfaction. Umbach and Wawrzynski (2005) found that the interaction between staff and prospective students is of the utmost importance to prospective students; they also confirmed the significance of staff in generating positive student evaluations. Social clues of quality such as staff-to-student interactions were also found to be of special importance if the buyer has a limited understanding of the high-involvement service such as education (C. Brown *et al.*, 2009). Therefore, we hypothesize the following:

Hypothesis 1b: Staff-to-student interaction has a positive impact on students' satisfaction.

#### *Consequences of Student Satisfaction*

##### University Brand Preference

University brand preference is conceptualized as a biased position toward a certain brand that includes two main dimensions: affective and behavioral responses (Ebrahim, 2013). Student satisfaction is highly valued by universities, as it leads to affective responses (Berman, 2005). Imbuing brands with human personality traits enables consumers to form strong relationships with the brand (Swaminathan *et al.*, 2009). Staff members serve as the brand spokespeople during staff–new student interactions. Research on brand personality suggests that brands can not only be described using human personality traits, but also evoke feelings and associations within the consumer (Watkins and Gonzenbach, 2013). Preference may be determined through the sampling/testing of a product or service such as onboarding events. Students may develop affective responses by associating the brand ambassador's/academic staff members' and other students' personal attributes (e.g., friendliness and likeability) with the university brand. As students'

participation in onboarding events practically represents an experience with the university service providers and other students, they may expect to have their social need to belong satisfied based on their evaluation of such attributes. Therefore, through its association with staff and similar other students, the university can build strong brand relationships. Students may associate friendly, accessible staff members with a higher probability of them easily belonging to the new social norm of the university. Students also like to be associated with socially similar students who are friendly and are likely to prefer cultivating relationships with them. Support for the relationship between friendly and accessible staff, socially similar students, and perceived lower risk of social exclusion can be found in the expectancy value theory (Eccles *et al.*, 1983), which states that people's (students') attitudes are governed by accessible beliefs (friendly and accessible staff and students' satisfied social needs and increased chances of student integration and belonging), where the belief is defined as a subjective probability that an object (person) has a certain attribute (Fishbein and Ajzen, 1975). Thus, the following hypothesis is presented:

Hypothesis 2: Student satisfaction positively influences university brand preference.

### Students' Prosocial Behavior

Prosocial behavior represents a discretionary consumer effort that benefits others, including the organization (Johnson and Rapp, 2010). Acts that represent this behavior include protecting the organization and speaking favorably about the organization to outsiders, which promotes and improves the organization. These acts of kindness result in several motivational and social drivers (Worthy, 1986). The idea is that students satisfied with an onboarding program will display behaviors similar to students satisfied with the university courses/programs, such as advocating the program to other students (Mazen *et al.*, 2008). The premise of reciprocation that satisfied consumers will reciprocate through behavior beneficial to the other party is founded in the well-established theory of social exchange (Morgan and Hunt, 2012). The rationale is that new students satisfied with the onboarding program will view their experience positively and are expected to reciprocate by displaying behavior that is beneficial to the university, such as encouraging other new students to register.

As students are uprooted from their previous social system (i.e., high school), they are expected to experience disorientation with the new social system represented in the university undergraduate social reality. Satisfying students' social needs by allowing them to form meaningful relationships with capable, friendly staff and students is likely to produce prosocial behavior as well as enhance students' willingness to continue the relationship (i.e., enroll in the university). Students are also expected to develop positive attitudinal and behavioral outputs toward the university brands that make them feel that they belong and fit in. Accordingly, the following hypothesis is put forth:

Hypothesis 3: Student satisfaction has a positive impact on students' prosocial behavior.

### *Prosocial Behavior and Brand Preference*

Prosocial behavior is a multi-dimensional construct that includes recommendation (Worthy, 1986), positive word-of-mouth (Bove *et al.*, 2009), advocacy (Turnipseed and Rassuli, 2005), the provision of feedback to the organization (Johnson and Rapp, 2010), and help for other customers (Eisenberg and Eggum, 2009). It is rational to expect that students who have a memorable social experience during the onboarding program will wish to tell others of their experiences as a self-

ingratiating act. This storytelling act allows students to recall the memories and positive feelings associated with those memories as they recount the quality interactions with academic staff and fellow students during the onboarding program to others. This argument is in line with the theory of perceptual reenactment (Petit *et al.*, 2019), which states that sensory triggers allow individuals to reenact memories and the emotional associations with those memories. In other words, when we retell a pleasant story from our past, we are actually making ourselves feel good by reenacting the experience on the conceptual level (i.e., reliving the experience). The emotions recalled with each storytelling are associated with the brand that allowed the memorable experience. Therefore, students' prosocial behavior manifested in the act of retelling the onboarding program experiences actually strengthens the association between the positive emotion and the emotional dimension of university brand preference. As new students exhibit prosocial behaviors such as recommending the onboarding programs to others, they are expected to wish to develop new positive experiences that produce favorable emotions in line with their expectations developed during the onboarding program. Thus, they develop a preference toward the brand, which they expect will allow them to encounter future positive experiences. In light of the above, the following hypothesis is presented:

Hypothesis 4a: Prosocial behavior toward the onboarding program positively influences university brand preference.

#### *Prosocial Behavior and Fee-paying Behavior*

Positive human interactions greatly influence an individual's behaviors in that an individual exhibits prosocial behaviors and expects appraisals from others within the group as a result of this positive interaction. This appraisal, in turn, satisfies the innate need for self-enhancement; accordingly, students will want to repurchase the brand in order to belong to the community whose members positively appraise one another, leading to recurring self-enhancement (Grubb and Grathwohl, 1967). Mandl and Hogreve (2020) added that, when consumers feel a sense of belonging, they typically want to go the extra mile and, thus, exhibit prosocial behavior, with the hope of initiating reciprocal beneficial exchanges. As a result, with each positive consequence of reciprocal exchange (e.g., praise from others), the consumer will have a stronger intention to repurchase the brand. Accordingly, the following is hypothesized:

Hypothesis 4b: Prosocial behavior positively influences students' fee-paying behavior.

#### *Brand Preference and Fee-paying Behavior*

Brand preference has been shown to have a behavioral response (e.g., buying behavior; Jung and Soo, 2012). As new students have favorable experiences with staff members and students, they are expected to pursue the course of action that allows them to maintain relationships that reproduce an affective response. Therefore, students are likely to repeat educational experiences with the friendly university staff and students whom they like. Social preference theory also supports the relationship between the brand preference and student fee-paying behavior, as it states that an individual utility that drives intentions depends on one's absolute payoffs (Bolton and Ockenfels, 2000). These payoffs may be in the form of social inclusion/social belonging and the perception that there is an organizational-self fit (Banning and Banning, 1986) between the university and student. Furthermore, Hosany and Martin (2012) explained that consumers typically prefer to purchase the brands they believe are congruent with their self-image; therefore, as they purchase

a brand, they wish to achieve image congruence through the complementary characteristics with which this brand complements their own self-image. Onboarding programs allow students to sample the education delivery prior to purchase and conceptualize their future lives as undergraduate students, expecting to swiftly adjust and belong to the university social system; thus, they will want to pursue the most preferred option. Accordingly, students who have developed their university brand preference during the pre-purchase sampling of the service will be more inclined to continue the relationship with the same university, leading to the following hypothesis:

Hypothesis 5: University brand preference positively influences students' fee-paying behavior.

## Materials and Methods

### *Quantitative Data Collection*

This study's scales were sourced from previously validated scales in the literature. A few amendments were made to ensure that the measures were appropriate for the higher education context. Five-point Likert-type scales (1 = strongly disagree, 5 = strongly agree) were used to capture students' self-reported responses. Financial data were obtained from the university system, which indicated students' fee-paying behavior. Elsharnouby's (2016) scale was used to identify the construct of staff–new student interaction. This scale can be used to measure students' perceptions of the degree of staff providing reliable data, friendliness, and responsiveness. In addition, Eldegwy *et al.*'s (2018, 2022b) scale, which was originally developed to measure student-to-student interaction quality within university activities as well as student satisfaction with university direct experience events (e.g., onboarding events), was used in the current study. Students' university brand preference was measured using scales developed by Bapat and Thanigan (2016), which rated the extent to which students preferred one university over another, considered it their first choice, and intended to pay tuition. Prosocial behavior was measured using Johnson and Rapp's (2010) scale. Finally, students' fee-paying behavior was determined using a 2-point nominal scale obtained from the university's Oracle system based on the actual payment of tuition fees. The payment of fees is an objective representation of university enrollment. Obtaining data from different data sources for predictors and creation can reduce common method bias (Podsakoff *et al.*, 2003). Accordingly, in the current study, the surveys were collected with an average time separator of 1 month from the fee-paying behavior. Items for all scales are included in Table I.

Table I. *Constructs*

Construct	Items	Item coding	Estimate ( $\lambda$ )	T-test	CR	AVE	HTMT
Staff – student interaction (SSI1)	The staff is friendly	QUES_1	.580	-	0.784	0.479	0.804
	The staff is supportive	QUES_2	.670	13.021			
	The staff provided me with reliable information.	QUES_3	.807	11.451			
	I like the acadmic staff at this university	QUES_4	.692	10.393			
Student – student	Working with students enrolled in this program has motivated me to get the	QUES_5	.815	-	0.851	0.657	.860

Construct	Items	Item coding	Estimate ( $\lambda$ )	T-test	CR	AVE	HTMT
interaction (SSI2)	best out of this activity						
	Other students at this university are friendly	QUES_6	.751	15.928			
	I like the students I have met at this university.	QUES_7	.862	19.271			
Student satisfaction (SS)	Overall, I am very satisfied with this program.	QUES_8	.699	-	0.802	0.575	0.815
	This program has met my expectations.	QUES_9	.737	13.270			
	This program has met my needs.	QUES_10	.833	14.879			
University brand preference (UBP)	I have decided this is my preferred university regardless of any other university's decision.	QUES_11	.847	-	0.761	0.522	0.806
	This university is my preferred choice over other universities.	QUES_12	.731	16.265			
	I will pay my university fees after this program.	QUES_13	.560	11.458			
Pro-social behaviour (PSB)	I will say positive things about this program to others.	QUES_14	.766	-	0.871	0.629	0.873
	I will encourage other students to participate in this program.	QUES_15	.785	18.593			
	I am willing to pay a higher price (time and effort included) for this university's program than any other programs at another university I know about.	QUES_16	.823	16.395			
	I am willing to pay more (time and effort included) in order to get into the subject area of the same program.	QUES_17	.798	15.801			

The data collection instrument was initially developed according to the relevant literature, followed by a small-scale test carried out on 12 students to ensure that question items were clear. The final format of the questionnaire included 17 items using a Likert-type scale. An 18<sup>th</sup> item was collected from the university's financial records. Participating students' consent was also obtained after informing them that the study was of an academic nature.

### *Design, Collection, and Sample*

The rationale for selecting relatively high-fee universities was based on the association between high-fee universities and organized marketing activities. Most low-fee universities in Egypt do not perform organized marketing activities, unlike high-fee universities. At the time of this study, five Egyptian universities were considered high-fee universities, charging students more than \$5000 per year (Eldegwy *et al.*, 2022a). Many universities' marketing efforts aim to showcase the brand differentiator benefits (Elhajjar and Yacoub, 2022). Such differentiators may be sampled to students through onboarding programs (Eldegwy *et al.*, 2023). One university agreed to participate

by allowing the research team access to its financial system database. The participating university was the only university that offered an online onboarding program; the other four universities did not offer a similar program to new students. After students finished their onboarding program, they were asked to complete the questionnaire by clicking on a link, thereby ensuring that their experiences were recent. Data were gathered and analyzed against students' fee-paying behavior in the fall 2023 semester. The sample included only those students who were academically eligible (i.e., those who received acceptance letters) to ensure that the recipients' fee-paying behavior was not affected by an academic barrier to entry. The surveys linked to direct admission offers accounted for 776 qualified new students. Because it is rational to expect that those who applied to universities in addition to the participating university will have experienced those universities' procedures and interactions during their admission process, a filtering question about the number of universities to which the student applied was included; this was done to exclude respondents who applied exclusively to the participating university to ensure that the sample was drawn from a sample of students who had been subjected to the onboarding programs of numerous universities. Students' exposure to other brands decreased the qualifying questionnaires to 477, and further screening due to missing data led to the omission of 110 observations, resulting in a sample size of 367 observations.

## Results

This study adopted the structural equation modeling (SEM) approach with the aid of AMOS 20 to statistically analyze the data. The model constructs were evaluated using a confirmatory factor analysis (CFA). Composite reliability indices ranged between 0.76 and 0.87 for all scales, indicating a satisfactory level of internal consistency. The average variance extracted (AVE) for all model constructs surpassed the suggested threshold of 0.50 (Nunnally and Bernstein, 1994). According to the CFA results, all variables had standardized factor loadings greater than 0.50, demonstrating sufficient convergent validity. Finally, all model fit indices were satisfactory. The measurement model's goodness-of-fit measures were as follows:  $\chi^2 = 250$ ,  $df = 106$ ,  $p < 0.001$ ,  $\chi^2/df = 2.36$ ,  $IFI = 0.96$ ,  $TLI = 0.96$ ,  $CFI = 0.97$ , and  $RMSEA = 0.054$ . The path model also exhibited an adequate fit ( $\chi^2 = 8.24$ ,  $df = 4$ ,  $p < 0.083$ ,  $\chi^2/df = 2.06$ ,  $GFI = 0.99$ ,  $IFI = 0.99$ ,  $TLI = 0.99$ ,  $CFI = 0.99$ ,  $RMSEA = 0.061$ ).

Hypothesis testing produced the indicated results in Table II. Staff-to-student interaction had a significant effect on satisfaction with the showcase program ( $\beta = 0.48$ ,  $p < 0.001$ ), supporting H1a. Student-to-student interaction had a significant effect on satisfaction with the program ( $\beta = 0.32$ ,  $p < 0.001$ ), supporting H1b. The two predictors explained 56% of the variation in student satisfaction with the program. The results also supported H2. Satisfaction with the program has a significant effect on university brand preference ( $\beta = 0.59$ ,  $p < 0.001$ ), with 49% of the variation in university brand preference explained by students' satisfaction with the program. Satisfaction with the program had a significant effect on students' prosocial behavior ( $\beta = 0.95$ ,  $p < 0.001$ ), supporting H3 as 56% of the variation in student prosocial behavior was explained by student satisfaction with the onboarding program. H4a and H4b were also supported, as prosocial behavior had a significant effect on students' university brand preference ( $\beta = 0.44$ ,  $p < 0.001$ ) and fee-paying behavior ( $\beta = 0.49$ ,  $p < 0.001$ ). H5 was also supported as university brand preference had a significant effect on fee-paying behavior ( $\beta = 0.53$ ,  $p < 0.001$ ). The two predictors of prosocial behavior and university brand preference explained 64% of the variation in student fee-paying behavior.

Table II. *Structural Model Results*

Hypothesized paths	Beta	t-value	Hypothesis testing result
Hypothesis 1a: Student-to-student interaction positively predicts student satisfaction.	.484*	11.858	Supported
Hypothesis 1b: Staff-to-student interaction has a positive impact on students' satisfaction.	.319*	8.117	Supported
Hypothesis 2: Student satisfaction positively influences university brand preference.	.585*	9.164	Supported
Hypothesis 3: Student satisfaction has a positive impact on students' pro-social behavior.	.954*	20.990	Supported
Hypothesis 4a: Pro-social behavior toward the onboarding program positively influences university brand preference.	.438*	7.040	Supported
Hypothesis 4b: Pro-social behaviour positively influences students' fee-payment behavior.	.493*	9.560	Supported
Hypothesis 5: University brand preference positively influences students' fee-paying behavior.	.528*	12.734	Supported
Note: *Sig. at P < .001			
<b>R<sup>2</sup> results</b>			
Student Satisfaction	.561		
Pro-social Behaviour	.559		
University Brand Preference	.491		
Fee-paying Behaviour	.642		

### **Discussion and Implications**

This study offers several new additions to the literature. First, the study findings revealed that students were more likely to be satisfied with their interactions with fellow students than with their interactions with staff members (see Table II), which is a departure from mainstream literature findings that attest to the prominence of the service provider (staff) as the most significant driver for student satisfaction. A possible explanation may be the context of the study, as students during the onboarding programs seek to form friendships that may last for the duration of their studies (3–5 years). Typically, a freshman student may expect that longer social relationships will be developed with fellow freshmen more than staff members as the student-to-student interactions take place both within and outside of classes, unlike student–teacher interactions, which generally take place within the class due to their professional nature. The finding attests to the challenging nature of higher education branding, where the holistic university-wide experience is likely to be more dependent on student-to-student rather than staff-to-student interactions.

Second, the model with its predominantly social predictors has a significantly high explanatory power of 0.64 as per Cohen (1992, p. 159). The absence of rational evaluative criteria (e.g., academic quality, physical facilities) as drivers for fee-paying behavior attests to the importance of the social fit between the students' self and the university brand, represented in the academic staff and fellow students as brand ambassadors. The abstract notion of 'what is one self?' and how university brands describe objective measurements to determine the self–university brand fit is an area that requires further scientific inquiry, including the conceptualization of stages of the

decision-making process with its elimination of university brands deemed of low quality during an earlier alternative evaluation stage. Only universities that meet the objective evaluation criteria, such as quality of programs and academic reputation, are expected to be included in this pre-purchase service trial stage (e.g., onboarding, campus visits, site tours, major exploration events). Students are likely to expend time and effort on the shortlist of comparable university brands and may make the purchase decision based on the subjective institution–self fit rather than on objective brand differentiators.

Third, the study identified an especially significant correlation between satisfaction and prosocial behavior ( $\beta = 0.954$ ). This seems to suggest that those satisfied students regard the onboarding activity as their initiation ritual in their new undergraduate community rather than the official induction date. Although the social exchange theory explains this behavior in that customers who are happy with service providers are likely to want to pay them back, the presence of such behavior very early in students' relationship with the university is an addition to the extant higher education literature.

Finally, students rank alternative university brands to choose from in a short list ranked according to their brand preference (Stankevich, 2017). The high correlation between student satisfaction and university brand preference ( $\beta = 0.585$ ) suggests that safety net universities (i.e., low rank) may be able to manipulate the brand preference construct through student satisfaction during the onboarding programs and become the first choice university. This finding is significant as previous studies have indicated that students forced to join universities that are not their preferred brand are more easily dissatisfied by discrepancies between the expected and delivered service performance than those who joined their preferred university brand (Elsharnouby, 2016). Accordingly, the dynamic construct of brand preference can mitigate the impacts of service failures (Mandl and Hogreve, 2020) as these students are more easily satisfied with their future university experience (Elsharnouby, 2016). Furthermore, the impact of prosocial behavior and brand preference on an objectively captured measure of student fee-paying behavior being validated by payment is a new addition to the literature.

### *Managerial Implications*

The statistically significant strong relationship between student-to-student interactions and student satisfaction ( $\beta = .484$ ) guides practitioners to segment students according to social similarity (e.g., socio-economic class and personality types) from the beginning of their educational journey. Doing so is likely to enhance students' sense of fit and belonging within the university community, which leads to higher levels of satisfaction. Satisfied students are typically more prone to academic achievement (El Refae *et al.*, 2021).

Because of the large explanatory power of the model, which explained 64% of students' fee-paying behavior ( $R^2 = 0.642$ ), universities are advised to decentralize their marketing activities and offer onboarding programs. It could be the case that some universities' central admission services make it easier to run general university virtual events due to the complexity of program sub-brands and communications while subsequently allowing for subject-specific promotion to students in the advanced stages of the decision-making process. Results from this study, as well as previous research stressing the importance of program choice (C. Brown *et al.*, 2009), highlight the importance of decentralizing university marketing activities to be subject-based. These

decentralized units should offer onboarding programs as early as possible and not allow these programs to be regarded as less important than the university's general communications and events.

Finally, this study has reported data missing from emerging markets in the higher education literature, whereby emerging markets typically exhibit unique findings (Burgess and Steenkamp, 2006; Marzouk, 2019; Marzouk and Mahrous, 2020). Such findings include the average number of universities to which an Egyptian student applies; students in the current study applied to an average of two or three universities, which is fewer than the reported four universities of their Western counterparts (Galotti and Mark, 1994).

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