

Original Research Article

When Engagement Fails to Bridge Trust: Customer Engagement as a Selective Mediator between Relationship Quality, Service Quality, and Loyalty in International Student Recruitment Agencies¹

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Abstract

International student recruitment agencies (“education agents”) channel a large and growing share of cross-border enrolment, yet their customer relationships remain almost unstudied in services marketing. This study asks whether customer engagement mediates the effects of relationship-quality dimensions (satisfaction, trust, commitment, communication) and perceived service quality on customer loyalty in this distinctive, largely virtual context. Integrating relationship-marketing theory with the SERVQUAL paradigm, we test a model on survey data from 315 international students of six Yemeni-owned agencies in Malaysia (94.3% response rate) using partial least squares structural equation modelling (PLS-SEM) with bootstrapped mediation. Engagement significantly partially mediated the loyalty effects of satisfaction (indirect effect = 0.116), commitment (0.100), communication (0.045), and service quality (0.046), but—contrary to prior insurance and banking findings—did not mediate the trust–loyalty relationship (0.038, 95% CI [−0.071, 0.148], ns). We advance this trust null cautiously, as a falsifiable boundary-condition proposition rather than a settled law: in a predominantly online, low-familiarity service purchased once and at a distance, trust does not generate the engagement through which it would otherwise reach loyalty. Because the mediation was estimated antecedent-by-antecedent and key fit diagnostics await re-estimation, the proposition is offered for confirmation in a jointly specified replication. Findings indicate that agencies should build loyalty through satisfaction, commitment, communication, and service quality rather than trust-based engagement.

1. INTRODUCTION

¹This article is derived from the doctoral thesis of the first author (Y. A. M. Al-Khaled, *Factors Determining to Improve Customer Loyalty Towards Yemeni Student Recruitment Agencies in Malaysia*, Limkokwing University of Creative Technology, 2021), substantially revised,

condensed, and re-analysed for journal publication.

Cross-border higher education has become a large service economy. More than five million students study outside their home countries, a figure rising by roughly 12% annually (UNESCO Institute for Statistics, 2019), and a substantial fraction of these enrolments is intermediated by international student recruitment agencies. Agents account for an estimated two-thirds of Chinese enrolments in the United States, about 58% of new international enrolments in Australia (Raimo et al., 2014), and 44% of agency-assisted enrolments in New Zealand (Yang et al., 2017). These agencies form a service industry in their own right, competing for students who can readily switch providers; retaining them is therefore an economic imperative rather than a convenience. Yet the marketing literature on customer loyalty has been built almost entirely on banking, telecommunications, retail, hospitality, and airline settings. The mechanisms that generate loyalty toward education agents—firms that sell an intangible, high-involvement, largely online service, often completed in a single transaction before the customer and provider ever meet—remain effectively untested.

The economic stakes of loyalty are well established. Retaining an existing customer costs far less than acquiring a new one, and loyal customers generate repurchase, positive word of mouth, and referral value that compound over time (Reichheld and Sasser, 1990; Kumar et al., 2013). For education agents, whose revenue depends on enrolment volume and on students recommending the agency to relatives and friends within tight diaspora networks, loyalty is the difference between a sustainable business and a marketing treadmill of constant acquisition. Malaysia, the setting of this study, has actively grown its international-student sector—targeting 250,000 international students—which has intensified competition among the agencies that feed it, raising student expectations and making loyalty harder to secure (Yang et al., 2017; Arambewela and Hall, 2009).

Three theoretical traditions bear on this problem. Relationship-marketing theory holds that loyalty is cultivated through relationship quality, a higher-order construct commonly operationalised through satisfaction, trust, commitment, and communication (Morgan and Hunt, 1994; Ndubisi, 2007). The SERVQUAL paradigm holds that loyalty follows from perceived service quality (Parasuraman et al., 1988; Zeithaml et al., 1996). A third, more recent construct—customer engagement—has been proposed as the psychological and behavioural bridge that converts these antecedents into loyalty (Brodie et al., 2011; Pansari and Kumar, 2017). Studies in banking (Monferrer et al., 2019), airlines (Hapsari et al., 2017), insurance (Petzer and van Tonder, 2019; Agyei et al., 2020), and mobile telecommunications (Thakur, 2016) report that engagement mediates the link between relationship or service quality and loyalty. Whether this mediating architecture holds in the education-agent context—and whether it holds uniformly across antecedents—is unknown.

This study addresses that gap. We integrate relationship-marketing theory and SERVQUAL into a single model

in which satisfaction, trust, commitment, communication, and service quality influence loyalty both directly and indirectly through customer engagement, and we test the model on international students served by Yemeni-owned recruitment agencies in Malaysia. The setting is analytically useful precisely because it stresses the standard model: the service is delivered mostly online, is often a one-off transaction, and is bought before any face-to-face contact—conditions under which trust is hard to establish and engagement may operate differently than in the repeat-purchase, relationship-rich settings where the mediation hypothesis was developed.

This paper makes three contributions. *First*, it provides, to our knowledge, the first empirical test of a combined relationship-marketing/SERVQUAL engagement-mediation model in the international student recruitment agency sector, a large but neglected education-services market. *Second*, it shows that engagement's mediating role is *selective*: it transmits the loyalty effects of satisfaction, commitment, communication, and service quality, but not of trust. This trust null—significant because it contradicts insurance and banking evidence (Agyei et al., 2020; Kosiba et al., 2018)—identifies a boundary condition for the widely assumed “engagement mediates everything” account and is directly falsifiable in replication. *Third*, it reprioritises the levers education agents should use to build loyalty, redirecting managerial effort away from trust-based engagement and toward satisfaction, commitment, communication, and service quality. The remainder of the paper develops the theoretical background (Section 2), the hypotheses (Section 3), the method (Section 4) and results (Section 5), and discusses their theoretical and managerial implications, limitations, and future research (Sections 6–9).

2. THEORETICAL BACKGROUND

2.1 Relationship marketing and the commitment–trust core

Relationship marketing reoriented the field from discrete transactions toward the creation, development, and maintenance of long-term customer relationships (Grönroos, 1994; Godson, 2009). Where transactional marketing concentrates on single sales and product features over short horizons, relationship marketing emphasises customer value, high interaction, and sustained commitment (Christopher et al., 1995; Sheth and Parvatiyar, 2002). Its scope extends beyond simple customer-relationship management to a constellation of internal and external relationships (Gummesson, 1997; Hennig-Thurau and Klee, 1997), but its behavioural core—and the part relevant here—concerns the customer relationship itself. Morgan and Hunt (1994) crystallised this in the commitment–trust theory, arguing that relationship marketing succeeds when it cultivates the twin mediating variables of trust and commitment; from these flow cooperation, reduced conflict, and, ultimately, loyalty. Relationship marketing is repeatedly linked to loyalty because it lowers customers' perceived risk, improves psychological satisfaction, and

makes switching less attractive (Alrubaiee and Al-Nazer, 2010; Ndubisi, 2007).

Relationship quality is the construct through which relationship marketing is usually operationalised. It captures the overall strength of a relationship and the degree to which it meets the customer's expectations and needs (Crosby et al., 1990; Athanasopoulou, 2009). There is, however, no consensus on its dimensionality: it is widely treated as a higher-order construct, but different studies specify different sets of first-order dimensions (Hennig-Thurau and Klee, 1997; Athanasopoulou, 2009). Trust, commitment, and satisfaction recur most often, with communication frequently added (Ndubisi, 2007; Ball et al., 2004). Following this dominant tradition, the present study operationalises relationship quality through four dimensions—satisfaction, trust, commitment, and communication.

2.2 Service quality and SERVQUAL

Service quality is the customer's assessment of the overall excellence of a service, classically modelled as the gap between expected and perceived service (Parasuraman et al., 1985, 1988). The SERVQUAL instrument reduced an original ten determinants to five dimensions—tangibility, reliability, responsiveness, assurance, and empathy—measured across 22 items, and became the dominant service-quality scale (Parasuraman et al., 1988; Zeithaml et al., 1996). Service quality is a well-established antecedent of behavioural loyalty across service sectors (Zeithaml et al., 1996; Chen, 2016), and reliability is often identified as its most influential dimension. SERVQUAL has been contested—most prominently by the perceptions-only SERVPERF alternative—but remains the reference framework for perceived service quality in relationship-marketing research, and it is the framework adopted here.

2.3 Customer engagement

Customer engagement entered marketing to explain loyalty that satisfaction alone could not account for (Bowden, 2009; van Doorn et al., 2010). Early formulations were behavioural, framing engagement as customers' non-transactional behaviours toward a firm—word of mouth, referrals, reviews, and co-creation (van Doorn et al., 2010). The dominant view is now multidimensional: engagement is a context-dependent psychological state with cognitive, emotional, and behavioural facets, arising from interactive customer experiences with a focal object (Brodie et al., 2011; Hollebeek, 2011; Vivek et al., 2012). So et al. (2014) validated a widely used higher-order scale comprising identification, enthusiasm, attention, absorption, and interaction. A complementary value-based lens recasts engagement as the customer's transactional and non-transactional contribution of value to the firm, grounded in satisfaction and emotion (Pansari and Kumar, 2017). Since 2017 the construct has broadened in two directions relevant to the present setting: outward, from customer to actor engagement in multi-actor service ecosystems grounded in service-dominant logic (Brodie et al., 2019); and into digital and social-media contexts, where engagement is increasingly co-created online and its antecedents

and measurement re-examined (Lim et al., 2022; Lim and Rasul, 2022; Srivastava et al., 2025; Ndhlovu and Maree, 2022). This digital turn is directly pertinent here, because education-agent services are themselves predominantly online. Across these lenses, engagement is consistently reported as a strong proximal driver of loyalty and, increasingly, as the mechanism that transmits relationship and service quality into loyalty (Harrigan et al., 2018; So et al., 2014).

2.4 Customer loyalty

Customer loyalty is understood as a deeply held commitment to repatronise a preferred provider, expressed through both attitude and behaviour (Oliver, 1999; Dick and Basu, 1994). Three measurement traditions coexist: behavioural (repeat purchase), attitudinal (psychological attachment and advocacy), and composite approaches that combine the two (Dick and Basu, 1994; Bowen and McCain, 2015). Consistent with the relationship-marketing literature and with the education-agent setting—where behavioural repurchase is rare but recommendation is decisive—this study adopts a composite, predominantly attitudinal conception, operationalised through the Behavioural Intention Battery (Zeithaml et al., 1996): saying positive things, recommending to others, encouraging friends and relatives, and treating the agency as a first choice.

2.5 Positioning and gap

The three traditions have been combined before: relationship quality and service quality jointly predict loyalty (Rauyruen and Miller, 2007; Chen, 2016), and engagement mediates that prediction in banking, airlines, insurance, and telecommunications (Hapsari et al., 2017; Monferrer et al., 2019; Petzer and van Tonder, 2019; Thakur, 2016). Two features of this evidence base matter here. First, it is drawn almost entirely from relationship-intensive, repeat-contact industries in which customers interact repeatedly, often face-to-face, over long horizons. Second, the trust–engagement–loyalty path—affirmed in insurance and banking (Agyei et al., 2020; Kosiba et al., 2018)—has not been tested where the conditions that let trust become behaviourally active are absent. The education-agent context supplies exactly that test: a mostly virtual, frequently single-transaction service in which the customer commits before meeting the provider. This study therefore does not seek to re-establish that engagement matters—that is well documented—but to test whether engagement's *mediating* function is uniform across antecedents in a context designed to break it.

3. CONCEPTUAL MODEL AND HYPOTHESIS DEVELOPMENT

We model customer loyalty as a function of five antecedents—satisfaction, trust, commitment, and communication (the relationship-quality dimensions) and perceived service quality (the SERVQUAL dimension)—each acting on loyalty both directly and indirectly through customer engagement (Figure 1). The mediation logic is that

relationship and service quality generate the interactive experiences from which engagement arises (Brodie et al., 2011; Pansari and Kumar, 2017), and that engagement in turn deepens the attitudinal and behavioural attachment constituting loyalty (Hollebeek, 2011; So et al., 2014).

Satisfaction. Satisfaction is the post-consumption comparison of expected and perceived quality (Oliver, 1999; Leninkumar, 2017). Satisfied customers are more willing to invest attention and emotion in a provider; this engagement in turn sustains loyalty, a chain confirmed in airlines and banking (Hapsari et al., 2017; Monferrer et al., 2019; Flynn, 2012). For education agents, timely application processing, fair pricing, and responsiveness produce the satisfaction that draws students into ongoing engagement. Thus:

H1.

Customer satisfaction has a significant positive effect on customer loyalty through customer engagement.

Trust. Trust is confidence in the provider's reliability, competence, and integrity, and is theorised as foundational to relationship marketing (Morgan and Hunt, 1994; Chiromona and Dubihlela, 2014). Prior work reports that engagement mediates the trust–loyalty link in insurance and banking (Agyei et al., 2020; Kosiba et al., 2018). We test whether this holds in a setting where trust is difficult to establish before service delivery:

H2.

Customer trust has a significant positive effect on customer loyalty through customer engagement.

Commitment. Commitment is the customer's enduring desire to maintain a valued relationship, and its affective component is argued to predict loyalty even more strongly than satisfaction (Bowden, 2009; Dhasan et al., 2017). Committed students engage more with the agency's process and are correspondingly more loyal (Petzer and van Tonder, 2019). Thus:

H3.

Commitment has a significant positive effect on customer loyalty through customer engagement.

Communication. Communication—the timely, accurate, two-way exchange of information—builds relationship quality and both precedes trust and independently supports loyalty (Ndubisi, 2007; Ball et al., 2004; Alawni et al., 2015). Because the education-agent process is long and information-intensive (offer letters, visas, pre-departure guidance), communication is the primary vehicle through which engagement is created. Thus:

H4.

Communication has a significant positive effect on customer loyalty through customer engagement.

Service quality. Perceived service quality provides the experiential substance that engages customers and, through engagement, retains them (Hapsari et al., 2017; Roy et al., 2018; Sugandini et al., 2017). Thus:

H5.

Service quality has a significant positive effect on customer loyalty through customer engagement.

The model is a conventional synthesis; its novelty lies in the untested context and in the *comparative* test of whether all five indirect paths hold. We flag H2 as the theoretically pivotal hypothesis: the conditions of the education-agent setting give specific reason to expect trust-based engagement to fail, making H2 the model's most informative test.

4. METHOD

4.1 Design and setting

The study used a cross-sectional, quantitative, deductive design within a post-positivist paradigm. The population comprised international students who enrolled in Malaysian universities between 2015 and 2019 through six Yemeni-owned recruitment agencies operating across Kuala Lumpur, Selangor, Penang, and Johor Bahru ($N = 2,670$). These agencies were selected because they maintain active student bases and multi-university relationships; students were eligible if they were aged 18–40 and had transacted with one of the agencies.

4.2 Sample and data collection

Applying the Krejcie and Morgan (1970) table to $N = 2,670$ yielded a target sample of 338, allocated proportionally across the six agencies and drawn by simple random sampling. Questionnaires were self-administered online (Google Forms) during the COVID-19 period; online distribution was necessitated by movement restrictions and by the geographic dispersion of students across universities and intakes. Of 338 distributed, 319 were returned and, after removing four incomplete responses, 315 were usable (response rate 94.3%; usable rate 93.19%). Respondents were 65.4% male; 40.3% were aged 21–30 and 30.8% aged 19–20. Although the agencies are Yemeni-owned, only 41.3% of respondents were Yemeni nationals, the remainder spanning 12 other, predominantly Middle Eastern and North African, nationalities—indicating that the agencies serve a multinational, cross-cultural clientele, a feature we return to in the discussion. Table 1 summarises the respondent profile.

4.3 Measures

All constructs were measured with multi-item five-point Likert scales (1 = strongly disagree, 5 = strongly agree) adapted from validated instruments. Customer satisfaction (4 items), trust (5 items), commitment (3 items), and communication (3 items) were adapted from the relationship-quality literature (Rauyruen and Miller, 2007; Ndubisi, 2007; Alawni et al., 2015). Service quality was measured with the 22-item, five-dimension SERVQUAL scale (Parasuraman et al., 1988). Customer engagement (6 items) was adapted from So et al. (2014), and customer loyalty (8 items) from the Behavioural Intention Battery (Zeithaml et al., 1996). The full instrument comprised 51 substantive items plus a five-item demographic section. A pilot

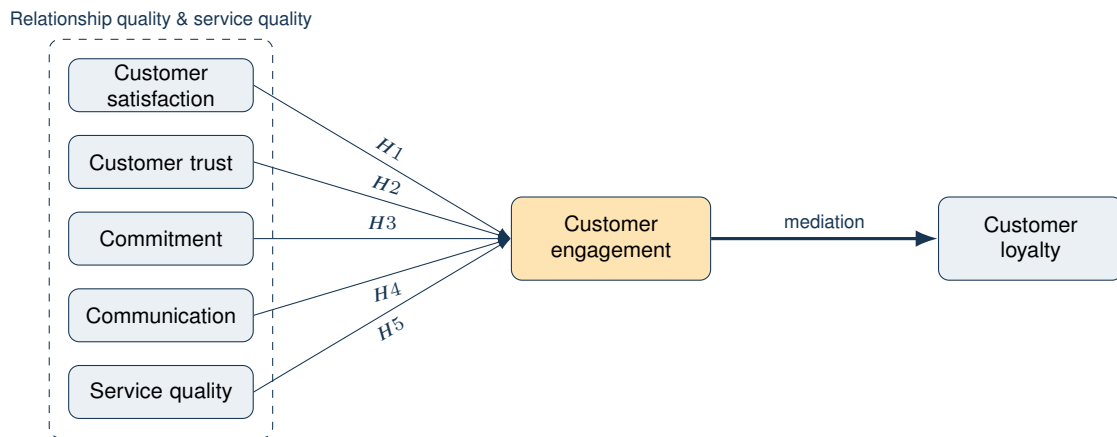


Figure 1. Proposed conceptual model. Solid arrows are the hypothesised indirect (mediated) paths H1–H5, running from each antecedent through customer engagement to customer loyalty. Each antecedent is additionally modelled with a direct path to loyalty (omitted for visual clarity; reported in Table 4). H2 (trust) is the theoretically pivotal hypothesis.

Table 1. Respondent profile ($n = 315$).

Attribute	Category	<i>n</i>	%
Gender	Male	206	65.4
	Female	109	34.6
Age	18	54	17.1
	19–20	97	30.8
	21–30	127	40.3
	31–40	36	11.4
Nationality	Yemeni	130	41.3
	Saudi / Iraqi (each)	27	8.6
	Kuwaiti	26	8.3
	Other (9 nations)	78	24.7
Agency	My One Fattah	91	28.9
	Salaysia Education	80	25.4
	Four others	144	45.7

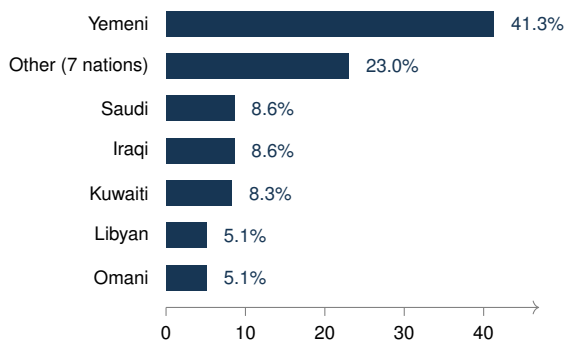


Figure 2. Respondent nationality distribution (%). Although the agencies are Yemeni-owned, 58.7% of students were non-Yemeni, spanning 13 nationalities—a cross-cultural clientele directly relevant to the trust findings (Section 6).

test preceded the main survey and returned acceptable normality and reliability.

4.4 Procedural remedies and analysis

Because the design is single-source and self-report, procedural remedies against common method bias were applied: anonymity was guaranteed, items were drawn from established scales, and construct order was varied across sections (Hair et al., 2019). As a statistical check, we ap-

plied the full-collinearity test recommended for PLS-SEM (Kock, 2015), which infers common method bias from inner-model variance inflation factors (VIFs): values below 3.3 indicate that the model is free of common method bias. The antecedent VIFs in the present model ranged 3.10–3.88 (Section 5.3), so that while all values remain well below the 5.0 level signalling serious collinearity, several exceed the conservative 3.3 threshold. Common method bias therefore cannot be fully excluded; we treat it as a bounded threat—mitigated procedurally and unlikely to manufacture the study's central *null* result, but relevant to the interpretation of the significant paths—and return to it in the limitations (Section 8). Data were screened for missing values, outliers, and normality, and analysed in two stages: a measurement model assessing reliability and convergent/discriminant validity, and a structural model estimated by partial least squares structural equation modelling (PLS-SEM), which is appropriate for predictive, theory-extending models with a complex nomological network (Hair et al., 2014, 2019). Mediation was tested with the bootstrapping procedure of Preacher and Hayes (2008) (bias-corrected 95% confidence intervals; an interval excluding zero indicates significant mediation). As reported below, the indirect effects in Table 5 derive from antecedent-by-antecedent simple mediation models rather than a single simultaneously estimated model—the engagement→loyalty (*b*) path differs across antecedents—which we treat as a design limitation (Section 8).

5. RESULTS

5.1 Descriptive statistics

Across all constructs, respondents' mean agreement fell above the five-point scale midpoint of 3.0, indicating broadly favourable perceptions of the agencies' relationship quality, service quality, and engagement, and correspondingly positive loyalty intentions—the mild positive skew typical of customer-evaluation data. Item-level means and standard deviations for every construct are reported in full in the source thesis (Al-Khaled, 2021, Ta-

Table 2. Reliability and convergent validity (final model, $n = 315$).

Construct	α	AVE	CR
Customer satisfaction	0.885	0.743	0.920
Customer trust	0.897	0.672	0.891
Commitment	0.859	0.788	0.914
Communication	0.851	0.918	0.971
Service quality (assurance + reliability)	0.979	0.732	0.961
Customer engagement	0.925	0.728	0.941
Customer loyalty	0.956	0.736	0.925

Table 3. Discriminant validity: heterotrait–monotrait (HTMT) ratios. All values < 0.90 ; note the elevated ratios among the quality constructs.

	Sat	Tru	Com	Cmn	SQ	CE
Trust (Tru)	.884					
Commit. (Com)	.817	.857				
Commun. (Cmn)	.794	.856	.885			
Serv. qual. (SQ)	.807	.813	.889	.882		
Engage. (CE)	.455	.476	.466	.516	.549	
Loyalty (CL)	.371	.388	.358	.344	.368	.763

bles 30–40) and are available from the corresponding author. One descriptive pattern is analytically consequential and is carried forward to the structural results: trust, while rated positively in absolute terms, correlated only weakly with the other constructs in the model ($r \approx 0.05$ – 0.27), behaving as a comparatively isolated variable—a pattern that anticipates its distinctive behaviour in the mediation analysis (Section 5.3).

5.2 Measurement model

Internal consistency was high for all constructs (Cronbach's α from 0.851 to 0.979; Table 2). Convergent validity was supported after model re-specification: 13 of the 22 SERVQUAL items (all tangibility, responsiveness, and empathy items) and one trust item were deleted for factor loadings below threshold, leaving service quality operationalised by its assurance and reliability items. In the final model, all retained loadings exceeded 0.76, average variance extracted (AVE) ranged 0.672–0.918, and composite reliability (CR) ranged 0.891–0.971, all above the 0.5 and 0.7 thresholds respectively (Fornell and Larcker, 1981; Henseler et al., 2015).

Discriminant validity was formally supported: the square root of each construct's AVE exceeded its inter-construct correlations (Fornell and Larcker, 1981) and all HTMT ratios fell below 0.90 (Henseler et al., 2015). We note, however, that several HTMT values among the relationship- and service-quality constructs were high (e.g., commitment–service quality 0.889; commitment–communication 0.885; communication–service quality 0.882), and structural collinearity was non-trivial (VIF 3.10–3.88 among the antecedents), indicating that these constructs, while statistically distinguishable, are strongly correlated—a point we return to in the limitations. Table 3 reports the full HTMT matrix.

Table 4. Direct effects on customer loyalty ($n = 315$).

Path	β	t	p
Satisfaction $\rightarrow$ Loyalty	0.073	2.022	0.035 *
Trust $\rightarrow$ Loyalty	0.062	2.740	0.004 *
Commitment $\rightarrow$ Loyalty	0.108	2.601	0.007 *
Communication $\rightarrow$ Loyalty	0.266	2.473	0.011 *
Service quality $\rightarrow$ Loyalty	0.489	4.836	< 0.001 **
Engagement $\rightarrow$ Loyalty	0.081	4.686	< 0.001 **

Note. * $p < 0.05$; ** $p < 0.01$.

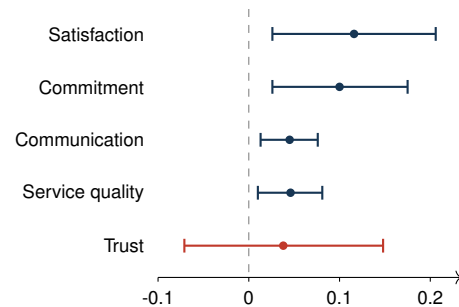


Figure 3. Bootstrapped indirect (mediated) effects on loyalty with 95% bias-corrected confidence intervals. Navy intervals exclude zero (significant partial mediation); the trust interval (red) spans zero (dashed line), so engagement does not mediate the trust–loyalty path.

5.3 Structural model and hypothesis tests

Collinearity was within accepted limits (all VIF < 5 ; tolerance > 0.10). Each antecedent had a significant direct association with loyalty, with service quality the strongest ($\beta = 0.489$, $t = 4.836$, $p < 0.001$), followed by communication ($\beta = 0.266$), commitment ($\beta = 0.108$), satisfaction ($\beta = 0.073$), and trust ($\beta = 0.062$); the engagement $\rightarrow$ loyalty path was significant ($t = 4.686$, $p < 0.001$). Table 4 reports the direct effects in full.

The mediation tests (Table 5) tell the theoretically decisive story. Engagement significantly and partially mediated the loyalty effects of satisfaction, commitment, communication, and service quality: all four indirect effects were positive with bootstrap confidence intervals excluding zero. The indirect effect of **trust**, however, was non-significant (indirect effect = 0.038, 95% CI $[-0.071, 0.148]$, $t = 0.684$, $p = 0.233$): the interval spans zero, so engagement does not mediate the trust–loyalty relationship. H1, H3, H4, and H5 are supported; **H2 is rejected**.

The failure of the trust path is not attributable to a weak engagement $\rightarrow$ loyalty link (the b -path for the trust model was in fact the largest, 0.525); it is driven by the near-zero a -path (trust $\rightarrow$ engagement = 0.073). In this setting, trust simply does not translate into engagement, and so cannot reach loyalty through it. This is corroborated by the descriptive pattern: trust correlated weakly with every other construct in the model ($r \approx 0.05$ – 0.27), behaving as a near-isolated variable. Figure 3 displays the five indirect effects with their confidence intervals, making the trust exception visually plain.

Table 5. Bootstrapped indirect effects and hypothesis decisions ($n = 315$; 95% bias-corrected CIs).

Path	a (X→CE)	b (CE→CL)	Indirect ($a \times b$)	t	95% CI	Decision
H1 Satisfaction → CE → Loyalty	0.414	0.281	0.116	2.529	[0.026, 0.206]	Partial mediation — supported
H2 Trust → CE → Loyalty	0.073	0.525	0.038	0.684	[-0.071, 0.148]	No mediation — rejected
H3 Commitment → CE → Loyalty	0.416	0.241	0.100	2.638	[0.026, 0.175]	Partial mediation — supported
H4 Communication → CE → Loyalty	0.505	0.088	0.045	2.778	[0.013, 0.076]	Partial mediation — supported
H5 Service quality → CE → Loyalty	0.503	0.091	0.046	2.543	[0.010, 0.081]	Partial mediation — supported

Table 6. Strength of mediation: variance accounted for (VAF), computed from the reported total and indirect effects.

Path	Total	Indirect	VAF	Type
Satisfaction	0.745	0.116	15.6%	Partial (modest)
Commitment	0.820	0.100	12.2%	Partial (modest)
Communication	0.942	0.044	4.8%	Weak
Service quality	0.941	0.046	4.9%	Weak
Trust	—	0.038 ^{ns}	—	None

Note. VAF <20% negligible, 20–80% partial, >80% full (Hair et al., 2014). ^{ns} non-significant indirect effect. “Total” is the bivariate total effect from each antecedent’s simple mediation and is not directly comparable with the joint-model direct effects in Table 4 (see text).

5.4 Strength of mediation and explanatory power

Beyond statistical significance, the *strength* of each mediation can be gauged by the variance accounted for (VAF = indirect effect / total effect; Hair et al., 2014). An important provenance caveat applies here. The direct effects in Table 4 are estimated in the full structural model, with all five antecedents entered jointly; the *total* effects in Table 6 are the bivariate total effects from each antecedent’s own simple mediation. The two are therefore not on the same footing—this is why, for example, the satisfaction direct effect in Table 4 (0.073, net of the four correlated antecedents) is far smaller than the simple-mediation total in Table 6 (0.745), and the VAF figures should be read as strength estimates *within each simple mediation*, not as decompositions of the joint model. Reconciling the two onto one simultaneously estimated model is the re-analysis flagged in Section 8. With that caveat, VAF was 15.6% for satisfaction, 12.2% for commitment, 4.8% for communication, and 4.9% for service quality (Table 6). All four fall below the 20% guideline that separates negligible from substantive partial mediation. Thus, although engagement’s indirect effects are statistically significant (bootstrap confidence intervals exclude zero), they are modest in magnitude: engagement is a genuine but *limited* partial mediator, and the direct paths carry the majority of each antecedent’s total effect on loyalty. This tempers any strong “engagement is the mechanism” reading—engagement contributes to, rather than dominates, the transmission of quality into loyalty in this setting, consistent with the boundary-condition argument developed in the Discussion.

Reporting transparency on predictive-fit diagnostics.

We report a deliberate boundary of this secondary analysis. The study re-analyses the measurement model, collinearity, direct effects, and bootstrapped mediation as originally estimated, but the source study did not

compute—and these summary statistics do not permit reconstructing—the explanatory-power, effect-size, predictive-relevance, and model-fit diagnostics now expected for PLS-SEM: coefficient of determination (R^2 , adjusted R^2) for customer engagement and customer loyalty, effect sizes (f^2), predictive relevance (Q^2 via blindfolding), and standardised root mean square residual (SRMR) (Hair et al., 2019; Henseler et al., 2015). Obtaining them requires re-estimating the model on the raw case data in dedicated PLS software. We flag this as a limitation (Section 8) rather than supplying reconstructed figures, because reporting fit statistics not actually computed would misrepresent the analysis. The same raw-data re-estimation should replace the antecedent-by-antecedent mediation (Table 5) with a single simultaneous model reporting one engagement→loyalty path and one set of specific indirect effects; on theoretical grounds the trust null is expected to persist, because the trust→engagement a -path is near zero (0.073) and largely independent of the other antecedents. The VAF estimates above derive only from the effects the source study did report and stand independently of that re-analysis.

6. DISCUSSION

The results confirm that, in the education-agent context, customer engagement operates as the partial mediating mechanism that transmits the loyalty effects of satisfaction, commitment, communication, and service quality—consistent with airline (Hapsari et al., 2017), banking (Monferrer et al., 2019), and insurance (Petzer and van Tonder, 2019) evidence, and extending that architecture to a previously unstudied sector. Service quality exerted the strongest total influence on loyalty, underscoring that even a largely virtual service is judged substantially on its assurance and reliability. Communication was the second strongest, consistent with the information-intensive nature of the agent journey.

6.1 The trust anomaly

The theoretically important result is that engagement did not mediate the trust→loyalty path. Unlike Agyei et al. (2020) and Kosiba et al. (2018), who found engagement to mediate trust→loyalty in insurance and banking, we find no such mediation—because trust does not generate engagement in this setting. We offer a boundary-condition interpretation grounded in the trust literature. A useful distinction separates *initial* (or calculus-based) trust from *knowledge-based* trust that accumulates through repeated interaction. Insurance and banking are continuous, contractual, repeat-contact relationships in which

knowledge-based trust is repeatedly enacted and can motivate engagement. Education-agent services, by contrast, are typically completed once, at a distance, and largely online, with customer and provider often meeting only after the student arrives in the host country. Under these conditions trust—when present—is more plausibly a *static precondition* for entering the transaction than a dynamic driver of ongoing interactive engagement. The near-isolation of trust from every other construct in the data is consistent with this reading.

Two further mechanisms may reinforce the effect and are worth testing directly. First, *trust transfer*: in tight diaspora networks, students may enter the transaction trusting the relative or friend who recommended the agency rather than the agency itself, so provider-directed trust does little independent work. Second, *cultural and linguistic distance*: with only 41% of respondents co-national with the Yemeni-owned agencies, provider–customer dyads frequently cross cultural and linguistic boundaries in a remote, pre-arrival encounter—conditions under which interpersonal trust forms slowly and may not become behaviourally active during the short service window. The practical corollary is that engagement is not a universal solvent: it channels experiential and relational antecedents into loyalty, but it cannot manufacture engagement from trust where the service structure gives trust nothing to act upon.

This qualifies the increasingly routine claim that customer engagement mediates the relationship-quality/loyalty nexus. It does—but selectively, and the selection depends on whether an antecedent can plausibly produce interactive engagement in the given service structure. That is a testable, generalisable proposition: the trust→engagement path should weaken as service contact becomes more virtual, more one-off, and more front-loaded, and strengthen in continuous, high-contact relationships.

7. IMPLICATIONS

7.1 Theoretical implications

The study makes two theoretical contributions. First, it extends the engagement-as-mediator model—developed and repeatedly confirmed in relationship-intensive service industries—to the international student recruitment sector, a large, virtual, cross-cultural, high-involvement service that had not been examined. Second, and more consequentially, it identifies a boundary condition on the model: engagement’s mediating role is antecedent-specific rather than uniform, and the trust path is where it breaks. This reframes prior trust-mediation findings (Agyei et al., 2020; Kosiba et al., 2018) as context-bound rather than general, and it supplies a falsifiable proposition—service virtuality and transaction frequency moderate the trust→engagement path—that future work can test across settings.

7.2 Managerial implications

For education-agent managers, the results reprioritise where to invest. Because engagement is the operative mechanism, agencies should treat student engagement as a strategic objective across the application journey—prompt handling of calls and e-mails, accurate answers, honoured commitments, and smooth application processing—rather than as an afterthought. The specific levers that pay off through engagement are satisfaction, commitment, communication, and service quality (assurance and reliability in particular); these deserve the bulk of managerial attention. Concretely, in the largely pre-arrival, online agent journey this means engaging students at the touchpoints that structure the transaction: prompt, accurate handling of the initial enquiry and application; transparent, proactive updates at the offer-letter and admissions-decision stage; reliable, well-communicated support through the visa and financial-documentation process; and a structured pre-departure and arrival hand-off. These are the moments at which reliability and communication become interactive—and therefore the moments at which engagement, and through it loyalty and onward recommendation, is actually built. By contrast, the intuition that “building trust” will convert into loyalty is not supported here: trust did not feed engagement, so trust-building campaigns are unlikely to yield loyalty on their own in this virtual, pre-arrival setting. Managers should instead recognise that, for many students, trust is imported through third-party recommendation; the agency’s leverage lies in delivering the satisfying, communicative, reliable, and commitment-honouring experience that keeps recommended students engaged and, in turn, loyal enough to recommend the agency onward.

8. LIMITATIONS

Several limitations bound these conclusions. (1) *Discriminant validity and collinearity*. Although formal Fornell–Larcker and HTMT criteria were met, several inter-construct HTMT values approached 0.90 and antecedent VIFs reached 3.1–3.9, indicating the relationship- and service-quality constructs are highly correlated; the distinctiveness of satisfaction, commitment, communication, and service quality is therefore not fully secure, and shared method variance may inflate their associations. (2) *Compromised service-quality operationalisation*. Thirteen of 22 SERVQUAL items—every tangibility, responsiveness, and empathy item—were dropped, leaving “service quality” effectively measured as assurance and reliability, narrower than SERVQUAL as theorised. (3) *Analytic specification*. Indirect effects were estimated antecedent-by-antecedent rather than in a single simultaneous model; a joint model would provide more defensible partial-effect estimates. (4) *Trust null and measurement*. The pivotal trust result should be defended against a measurement-artifact explanation: trust had the lowest AVE, lost an item, and correlated weakly with everything; reporting HTMT confidence intervals and re-testing trust in the joint model, together with attention to comprehension in a multilingual

sample, is essential before the boundary-condition claim is treated as established. (5) *Common method and cross-sectional design*. Data are single-source, self-reported, and cross-sectional. Procedural remedies were used and a full-collinearity test (Kock, 2015) was applied, but because several inner-model VIFs (3.10–3.88) exceed the conservative 3.3 threshold, common method bias cannot be fully ruled out; a marker-variable design would provide a stronger test. Causal and mediational language therefore remains provisional. (6) *Missing PLS-SEM diagnostics*. R^2 , f^2 , Q^2 , and fit indices are not reported (Section 5.4). (7) *Generalisability*. The sample is confined to six Yemeni-owned agencies in four Malaysian states, surveyed during COVID-19 conditions that may have altered service delivery and engagement.

9. CONCLUSION AND FUTURE WORK

Customer engagement is the mechanism through which satisfaction, commitment, communication, and service quality build customer loyalty toward international student recruitment agencies—but it does not perform this role for trust. The selective mediation we document extends engagement theory to a large, neglected education-services sector and identifies a falsifiable boundary condition: in predominantly virtual, single-transaction, front-loaded services, trust does not feed engagement and therefore cannot reach loyalty through it. Managerially, agencies should build loyalty by satisfying students, honouring commitments, communicating promptly and accurately, and delivering reliable, assured service—engaging students throughout the application journey—rather than by assuming that trust alone will convert into loyalty.

Future research should (i) replicate the model with a single simultaneously estimated structural model and full PLS-SEM diagnostics (R^2 , f^2 , Q^2 , SRMR); (ii) test the proposed boundary condition directly by comparing high-contact and low-contact service settings, or by manipulating service virtuality; (iii) test nationality (co-national versus non-co-national provider–customer dyads) as a moderator, which may both address the cross-cultural confound and add a contribution; (iv) incorporate the provider's perspective and longitudinal or behavioural loyalty data to strengthen causal inference; (v) re-examine service quality with the full SERVQUAL battery or a context-adapted e-service-quality scale; and (vi) model third-party recommendation as an alternative antecedent of engagement, testing whether it substitutes for provider-built trust in low-familiarity services.

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Ethics: The study was conducted in accordance with the Declaration of Helsinki. Participation was voluntary, anonymous, and restricted to adults (aged 18 and over); informed consent was obtained from all participants before completion of the questionnaire, and no personally identifying information was collected. [Authors to confirm and insert the institutional ethics-approval reference from Limkokwing University of Creative Technology.]

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