Strategic Role of Social Media in Enhancing Customer Engagement in Higher Education

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ABSTRACT

Objectives: *The growth of social media has changed the communication space for colleges and universities, especially in conversations with prospective or enrolled students. To fill gap and also provide empirical basis, this study aims to investigate the strategic contribution of social media in developing customer engagement in Indonesian higher education setting focusing on content quality, engagement strategy, and platform diversity.*

Methodology: *The research was carried out using the quantitative method of the descriptive type. Initial data was collected through an online survey that was sent to 150 strategically chosen participants who create content centred on university through platforms including Instagram and TikTok. The analysis was conducted with Partial Least Squares Structural Equation Modeling (PLS-SEM).*

Finding: *From the findings of this research, three main constructs that underpin the impact of a social media strategy on customer engagement were discovered: diversity; interaction and content quality. The effective communication, right choice of the platform and strategic methods of communication are important in maintaining the engaging.*

Conclusion: *This analyses offer institutions a perspective of how to further develop the presence in social media, and is an effort to understand how students can be communicated with using digital channels within higher education. It highlights the necessity for academic programs to move from mere content delivery in a digital environment toward something more meaningful and engaging. It is recommended for future studies to use mixed-method design and compare the results, which can provide a full picture about such contexts.*

Keywords: *Social Media Strategy; Customer Engagement; Higher Education; Content Quality; Interaction Strategy.*

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INTRODUCTION

Digital communication has significantly changed the way colleges and universities interact with students and others. *Kaplan & Haenlein (2010)* noted that traditional institutional marketing largely used a one-way, top-down approach to promote products. With the rise of social media, marketing has turned into more of a conversation that gets people involved (Appel et al., 2020), marketing has evolved into a two-way communication strategy that emphasizes interactive engagement. Social media has become a vital tool for schools to connect meaningfully with their students. It's also a great way to share news and other information. Because of these changes, schools need to engage students more than ever. This aligns with the business principle that putting customers first will make them more loyal and valuable.

This transformation is particularly pronounced in Indonesia, where social media penetration has grown rapidly and university-aged users constitute a highly active segment of the digital population. According to the most recent published national digital report at time of this study (We Are Social & Meltwater, 2024), there were over 139 million active social media users in Indonesia early in 2024. Social media is an important means of communication to attract new students as this audience uses the medium extensively. Yet the many posts by Indonesian schools on these sites can often be crude blunt instruments. It is a static approach that doesn't take into account the interactive aspect of social media in which relationships, trust and loyalty are gradually developed over time.

Our findings from past research studies have shown that successful use of social media can provide a substantial uplift in engagement, brand trust and support decision making across industry sectors (Alalwan et al., 2017; Appel et al., 2020; Bhattacharya, 2023). This potential, however, as applied to Indonesian universities has been slow for development and there are scarcely good literatures in term of quality specifically dealing with the issue. In addition, there has been a lack of research into how the role of institutional factors and local cultural elements influences involvement in social media campaigns. The predominant research has only focused on generic marketing and colleges and universities have, for the most part, no clue how to reach students other than being educators.

To fill the above research gap, this study explores how Indonesian college students engage with content and examines the impact of various social media platform usages, engagement strategies, and content quality on consumer involvement. The study investigates a framework based on perspectives in the digital marketing and engagement literature. It was carried out in Banten Province, the home of a varied and overcrowded higher education setting. Engagement is a multidimensional response consisting of cognitive, emotional and behavioral responses to brand stimuli (ÇEVİK, 2019; Gunarto et al., 2022; Habibi et al., 2014). Under this model, better quality content, more engaging two-way communication and the expansion of reach across channels are all likely to lead consumers to be more engaged.

There are three ways in which this study contributes to the academic literature. On the one hand, it improves the state of engagement studies at universities by reducing social media strategy to three measurable, practically applicable components that administrators can use to make better choices. Second, by offering a regional test of the relationship between these qualities and student involvement in a competitive learning environment, it reinforces the little empirical data from Indonesia. Finally, it helps colleges go from being passive information producers to active engagement facilitators by identifying the most important strategic aspects for developing long-term digital connections.

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LITERATURE REVIEW

In today's lightning-fast social media landscape, customer engagement is rising in importance as a metric for digital marketing success. An indicator of people's brand value is the amount of money they spend on the brand online (Brodie et al., 2013). Participating in digital campaigns, reacting to school messaging, and engaging in actions such as like, commenting, and sharing can help students in higher education develop closer ties with companies (Hollebeek et al., 2014; Liu et al., 2021; Redmond et al., 2018; Vivek et al., 2012, 2014; Waqas, 2022).

Relationship marketing theory by Ashley & Tuten (2015) posits that organizations can cultivate trust, commitment, and loyalty among consumers through sustained interactions *(Ashley & Tuten, 2015)*. Social media is a key tool for fostering interaction and co-creation of value between students and institutions because it allows for two-way communication, user-generated content, and direct feedback. Instagram and TikTok are popular among young people in Indonesia because they offer immersive media experiences that make users feel more emotionally and physically engaged *(Conde-Caballero et al., 2024; Dianta Hasri Natalius Barus, 2024; Wikansari & Setyanto, 2023)*.

Recent empirical studies have shed light into key elements of a social media strategy that significantly impact levels of engagement. Content quality are also the considerations of utility, interest level, clarity and how attractive it looks. Alalwan et al. (2017) and Pletikosa Cvijikj & Michahelles (2013) show that high quality, entertaining content increases trust and engagement. If institutions want to foster trust and intimacy within the online world, they need an online engagement strategy that is effective in responding to critique and facilitating open exchange (Appel et al., 2020). Capriotti & Zeler (2023), Drummond et al. (2020), Felix et al. (2017), and Mangold & Faulds (2009) propose that through providing personalized information on several platforms, universities can meet the specific interests and browsing habits of students.

Now Universities are only starting to figure out how to play that kind of 3D chess. Studies have shown that students are more engaged when colleges offer interesting, helpful and compelling content. Anaprana & Ariyanti (2023) and Joshi et al. (2022) stress that enabling entertaining and visually attractive elements contributes to the establishing of emotional bonds between audiences, whereas informative and relevant content assists in maintaining their attention. Ruangkanjanases et al. (2022) highlight the importance of visual attractiveness in achieving organic reach. It's worth mentioning that visual material (especially in Instagram) performs better than text, which further supports the practicality of the platform, being used as a promotional and educational space also (Bonilla Quijada et al., 2022).

One more important thing to consider is how people associate with the institution. Interaction with the user base through surveys, asking questions and responding to comments creates a sense of ease and participation. Nabilah (2024) maintains that digital technologies promote organizational transparency and the formation of sustainable partnerships. By requiring a new set of demands on content creation, content can be tailored for different sites, which makes messages more accessible and appealing. For example, TikTok is great for visual storytelling and Twitter is your place for real-time updates. Gu & Duan (2024) and Wilson et al. (2024) also argue for per- sonalized relevance of the content to the needs of the audience.

Theoretical Framework and Hypothesis Development

Using the reviewed literature as a theoretical basis, we propose a conceptual model that illustrates three separate strategic dimensions of universities' use of social media: platform

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diversity, engagement strategies and content quality. In contrast to considering social media strategy as a second-order latent variable, in this study; the direct and independent effects of each of the strategic dimensions over customer engagement are considered. This approach helps to unpack what individual SNS behaviour is most effective for engagement outcomes at university level.

The quality of content is also seen as driver for engagement, because high-quality and interesting (i.e., entertaining or useful) contents attract attention, increase perceived value, and stimulate emotional connection. It is expected that the interaction mechanism will enhance engagement by facilitating back-and-forth communication, responsiveness and discussion which in turn reinforces the relationship between the institutions and students. Moreover, platform diversity is anticipated to increase access by enabling institutions to reach different student segments and maintain a joint presence over diverse digital platforms.

Figure 1. Research Framework
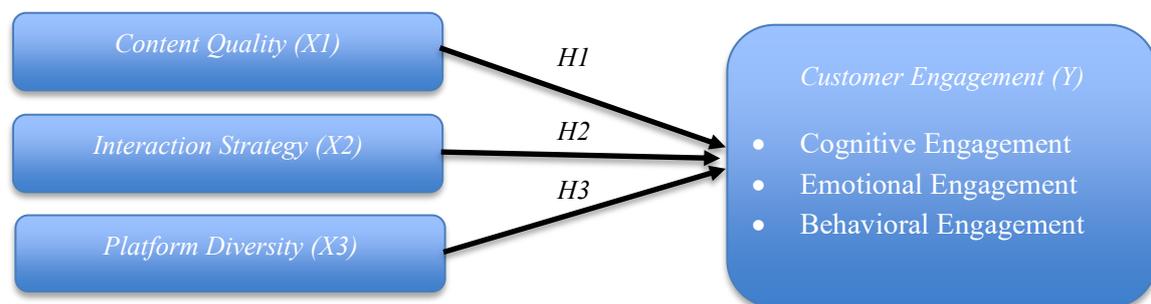
On account of this, the following hypotheses are formulated:

H1: Social media content quality positively affects customer engagement in higher education sector.

H2: Interaction strategy on social media has a positive impact on customer engagement among higher education institution.

H3: Platforms diversity of use social media would have a positive impact on customer engagement in institutions higher education.

These hypotheses will be tested empirically within the Indonesian context to provide evidence for the relative importance of different social media strategic dimensions on student engagement.

METHOD

Research Method

This was a descriptive quantitative study of Indonesian university social media strategies and students' engagement. In addition, Banten Province was chosen as the location of this study since it has around 1.5 M students enrolled at 246 universities and colleges. The study aimed to examine how three fundamental social media strategy factors, namely content quality (CQ), interaction strategy (IS), and platform diversity (PD) influence students' cognitive, emotional, and behavioral engagement with universities.

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Population and Sample

The study population were social media users who follow or interact with university content in Banten Province. The researcher used a purposive sampling technique in order to select 150 as research sample. Age was not a factor unless students were very young in which case collection of social media data would require parental permission and did not quite fit the aims of this study; they therefore were excluded. Students had to use social media, be following at least one official university account on that platform, but also had interacted with educational content on Instagram or TikTok (e.g., through likes, comments or shares). Online survey The cross-sectional data were collected over a 2-month period using an online survey delivered through multiple digital channels, with particular emphasis on reaching the target population.

Data Collection Techniques and Instrument Development

The major tool for gathering information was a structured questionnaire with yes/no questions and Likert scales for each statement (from 1 for very disagree to 5 for very agree). Social media strategy and consumer involvement were the two primary dimensions that the survey aimed to assess. Social media strategy was operationalized through three dimensions: content quality (relevance, informativeness, consistency), interaction strategy (responsiveness, dialogue opportunities), and platform diversity (use of multiple platforms with appropriate content adjustment). Customer engagement was assessed based on cognitive, emotional, and behavioral dimensions, reflecting how students process, respond to, and participate in university content on social media.

Data Analysis Techniques

To look at the data, a version of SmartPLS called Partial Least Squares Structural Equation Modeling (PLS-SEM) was used. The values of the variance inflation factor (VIF) were used to assess the measurement model for convergent validity and indicator reliability, composite reliability (CR) for multicollinearity and outer loadings, and average variance extracted (AVE) for indicator reliability. We used bootstrapping methods to test the structural model to see how important the route coefficients were. A two-tailed test was employed to generate 5,000 subsamples at a 5% significance level. Researchers used the percentile bootstrap method to make confidence intervals. Parallel processing was turned on, and a fixed random seed was used to make sure everything was the same. These are the settings that were used to start the process. Additionally, the blindfolding technique was employed to obtain the endogenous construct's Stone-Geisser's Q^2 values, subsequently utilized for assessing predictive significance. The blinding study used a standard method to test the cross-validated predictive power of PLS path models, with an omission distance of 7.

RESULTS AND DISCUSSION

Results

The outer loadings of each indicator were looked at to see if the measurement model was correct. Hair et al. (2019) say that an outer loading value higher than 0.70 means that an indicator is very good at measuring its corresponding latent construct (Hair et al., 2019). The next table shows that all of the indicators in this study have outer loading values that are higher than the recommended threshold, which is between 0.703 and 0.810. These findings validate that each item consistently embodies its corresponding construct and significantly enhances the measurement model *(Dash & Paul, 2021)*.

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The detailed outer loadings for each indicator are shown below:

Table 1. Outer Loadings

Indicators	Loadings
X1.1 <- Content Quality (X1)	0.717
X1.2 <- Content Quality (X1)	0.749
X1.3 <- Content Quality (X1)	0.771
X2.1 <- Interaction Strategy (X2)	0.762
X2.2 <- Interaction Strategy (X2)	0.772
X3.1 <- Platform Diversity (X3)	0.810
X3.2 <- Platform Diversity (X3)	0.730
Y1.1 <- Customer Engagement (Y)	0.703
Y1.2 <- Customer Engagement (Y)	0.722
Y2.1 <- Customer Engagement (Y)	0.730
Y2.2 <- Customer Engagement (Y)	0.725
Y3.1 <- Customer Engagement (Y)	0.718
Y3.2 <- Customer Engagement (Y)	0.738

Each indicator is a valid measure of its target construct when its external loading value is greater than 0.70.

To further understand the measurement model's reliability and convergent strength, we looked at the Composite Reliability (CR) and Average Variance Extracted (AVE) data. According to Hair et al. (2021), a notion is considered to have excellent internal consistency and good convergent validity when its CR value > 0.70 and AVE value > 0.50, respectively. The table below shows that each constructed model meets these requirements. This not only explains much of the volatility but also demonstrates that the indicators consistently examine each latent variable.

The following is a summary of the CR and AVE for each construct:

Table 2. Composite Reliability (CR) and Average Variance Extracted (AVE)

Construct	CR (rho_c)	AVE	Description
Content Quality (X1)	0.790	0.557	Reliabel and Valid
Interaction Strategy (X2)	0.741	0.588	Reliabel and Valid
Platform Diversity (X3)	0.745	0.594	Reliabel and Valid
Customer Engagement (Y)	0.868	0.522	Reliabel and Valid

All the constructs had at least three times of composite reliability (CR) value greater than 0.70 and average variance extracted (AVE) value more than 0.50. These results suggest that the model has good convergent validity and a strong reliability.

The multicollinearity of the model was assessed by investigating the outer and inner VIF outcome. According to Hair et al. (2021), a VIF less than 5.0 in the data is an indication that there is no redundancy among indicators/constructs and hence multicollinearity is not a problem. In terms of inner VIF (between constructs) and outer VIF values (indicator level), the analysis shows all coefficients are well below the recommended threshold and even the highest value is at 1.639.

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To test discriminate validity, Heterotrait-Monotrait ratio (HTMT) and Fornell-Larcker criterion were used to ensure that each construct in the model is empirically separate. As noted by Hair et al. (2021), discriminant validity is supported when the square root of each constructs ' AVE exceeds its correlations with the other constructs.

Table 3. Fornell–Larcker Criterion

	Content Quality (X1)	Customer Engagement (Y)	Interaction Strategy (X2)	Platform Diversity (X3)
Content Quality (X1)	**0.746**			
Customer Engagement (Y)	0.694	**0.723**		
Interaction Strategy (X2)	0.291	0.568	**0.767**	
Platform Diversity (X3)	0.229	0.604	0.318	**0.771**

The bold diagonal numbers represent the square root of the Average Variance Extracted (AVE) for each construct. It should be noted that each of the diagonal variables is higher than its respective inter-factor correlations, as already depicted. This supports the discriminant validity of the constructs and is consistent with the Fornell-Larcker criterion, which suggests that each construct shares more variance with its own items than it does with other factor items. This assessment was further supported by the HTMT (Heterotrait-Monotrait) values.

Table 4. HTMT Ratio

	Content Quality (X1)	Customer Engagement (Y)	Interaction Strategy (X2)	Platform Diversity (X3)
Content Quality (X1)	—			
Customer Engagement (Y)	0.855	—		
Interaction Strategy (X2)	0.639	0.850	—	
Platform Diversity (X3)	0.485	0.872	0.815	—

Adequate discriminant validity across components is shown by all HTMT values being below the conservative criterion of 0.90. The results show that the model's constructs measure different things conceptually.

These outcomes validate the stability and dependability of the estimates and the model's absence of multicollinearity problems. The following table presents the full set of VIF findings:

Table 5. VIF (Variance Inflation Factor) Outer and Inner Model

Indicators/ Construct Relation	Outer/Inner	VIF
X1.1	Outer	1.281
X1.2	Outer	1.327
X1.3	Outer	1.134
X2.1	Outer	1.032
X2.2	Outer	1.032
X3.1	Outer	1.037

Indicators/ Construct Relation	Outer/Inner	VIF
X3.2	Outer	1.037
Y1.1	Outer	1.504
Y1.2	Outer	1.596
Y2.1	Outer	1.552
Y2.2	Outer	1.594
Y3.1	Outer	1.560
Y3.2	Outer	1.639
Content Quality (X1) -> Customer Engagement (Y)	Inner	1.118
Interaction Strategy (X2) -> Customer Engagement (Y)	Inner	1.179
Platform Diversity (X3) -> Customer Engagement (Y)	Inner	1.138

Researchers checked for multicollinearity by examining the external and internal VIF values. The internal VIF values for the buildings ranged from 1.118 to 1.179, and the external VIF values were all less than 2. These values are well below the critical threshold of 5.0, so multicollinearity does not appear to be a problem with this model.

To assess the structural model's data-fitting ability, researchers looked at the dependent variables' R-squared and adjusted R-squared values. The exogenous constructs in the model adequately account for the majority of the observed variance in the endogenous constructs when the R-squared value is high. The adjusted R-squared provides less extreme estimates because it accounts for the total number of predictors. The table below summarizes the results:

Table 6. R Square and R Square Adjusted

Dependent Variable	R-square	R-square adjusted
Customer Engagement (Y)	0.763	0.758

Also the dependent variable for Customer Engagement has an R^2 value of 0.763. This means that three factors content quality, interaction strategy, and platform diversity—account for 76.3% of the variance in customer engagement levels. Hair et al. (2021) state that a high R^2 value in behavioral research is above 0.75, indicating that the model can explain a wide range of factors (Hair et al., 2021).

Table 7. Q^2 (Cross-Validated Redundancy)

Construct	SSO	SSE	Q^2
Customer Engagement (Y)	900.000	549.129	**0.390**

Customer Engagement has a Q^2 score of 0.390, which is significantly greater than zero. Hair et al. (2021) stated that a Q^2 value greater than zero indicates how useful a structural model is in predicting endogenous constructs. If it's close to 0.35 or higher, it indicates a good predictive value. This model is particularly useful for predicting consumer engagement.

Looking at the effect size (f-square) helps us determine how much each exogenous construct contributes to the endogenous variable. An f-square value of 0.02 is considered small, 0.15 is considered moderate, and 0.35 or higher is considered significant, according to (Arunraju Chinnaraju, 2025). This statistic indicates how each predictor variable in the

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structural model relates to real-world events. The f-square value for an item tells you how well it explains changes in the dependent variable.
The table below shows the f-square values for each relationship in the model:

Table 8. f-Square for Construct Relation

| Construct Relation	f-square
Content Quality (X1) -> Customer Engagement (Y)	1.016
Interaction Strategy (X2) -> Customer Engagement (Y)	0.306
Platform Diversity (X3) -> Customer Engagement (Y)	0.571

By determining the value of f^2, we can evaluate the effect each exogenous variable has on actual outcomes. Quality of content is a strong predictor for customer engagement ($f^2 = 1.016$), while the diversity of platform has a mediating effect ($f^2 = 0.571$) and an engagement strategy has low to medium influence ($f^2 = 0.306$). These results suggest that content value is more important than how much or when it was uploaded, which reiterates the importance of strategic planning for online development.

Studies regarding effect size show us that the quality of content is an important factor when it comes to enhancing customer engagement. The fact that more than 30% of the engagement variance extracted by the model is due only to content quality (which is highly significant, according to its f^2 value) deserves some emphasis. This reinforces the importance of production planning for educational material design related to achieving desirable levels of student engagement. If universities don't get the content part right and instead push out information that isn't valuable – as well as visually appealing – then they stand to forfeit lots of digital interaction. Such effects are so vast that its clear quality of content acts as the dominant lever when it comes to higher education focused social media engagement.

The structural model explains the inter-relationships between three exogenous constructs (Content Quality, Engagement Strategy, and Platform Diversity) and one endogenous construct (Customer Engagement). Figure 1 shows the instrumental loadings of the indicators on their respective latent variable, including R-squared values about the dependent variables and path coefficients between constructs. This image describes the model in conceptual and statistical terms, providing empirical evidence about the strength and sign of such relations within the model, by exhaling its credibility (Crocetta et al., 2021).
The following figure presents the complete structural model estimation results:

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Figure 2. Structural Model
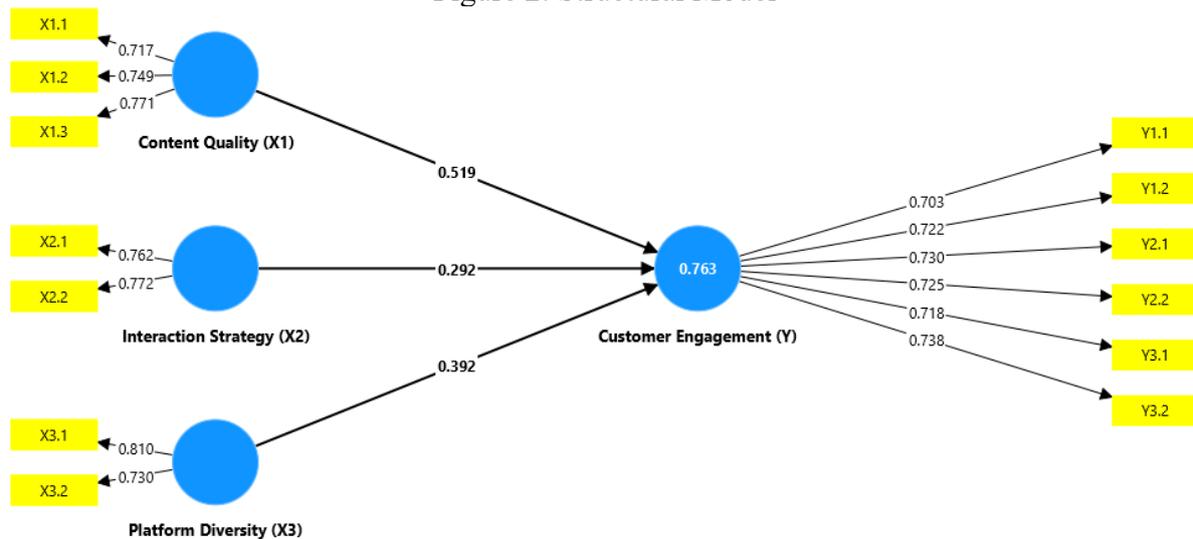
Researchers used the SmartPLS bootstrapping process to examine the estimated path coefficients and their statistical significance to determine whether there is a structural relationship between the latent components. If the p-value is less than 0.05, the researchers concluded that the relationship is statistically significant. The results indicated that all paths were supported, as each path predicted by the model had a positive and statistically significant effect on Customer Engagement.

The table below shows the exact results of the hypothesis testing:

Table 9. Hypothesis testing

Hypothesis	Estimate (β)	p-value	Decision
H1: Content Quality (X1) → Customer Engagement (Y)	0.519	0.000	Supported
H2: Interaction Strategy (X2) → Customer Engagement (Y)	0.292	0.000	Supported
H3: Platform Diversity (X3) → Customer Engagement (Y)	0.392	0.000	Supported

The path coefficients obtained from bootstrapping analysis confirm that all hypothesized relationships in the structural model are statistically significant. The effect of Content Quality (X1) on Customer Engagement (Y) is the strongest among the three ($\beta = 0.519$, $p < 0.001$), followed by Platform Diversity (X3) ($\beta = 0.392$, $p < 0.001$), and Interaction Strategy (X2) ($\beta = 0.292$, $p < 0.001$). These findings indicate that all three aspects of social media strategy play a critical role in shaping student engagement in the context of higher education.

Based on the results, the hypotheses are supported as follows:

H1: Content quality in social media has a positive influence on customer engagement in higher education institutions.

Is supported. Content quality shows the strongest and most significant influence ($\beta = 0.519$; $f^2 = 1.016$), indicating that relevant, consistent, and engaging content is a key driver of student interaction.

H2: Interaction strategy in social media has a positive influence on customer engagement in higher education institutions.

Is supported. Although the effect size is smaller compared to other variables ($\beta = 0.292$; $f^2 = 0.306$), interaction remains a significant predictor of engagement, emphasizing the importance of responsiveness and two-way communication.

H3: Platform diversity in social media use has a positive influence on customer engagement in higher education institutions.

Is supported. Platform diversity significantly contributes to engagement ($\beta = 0.392$; $f^2 = 0.571$), showing that leveraging multiple platforms with tailored content increases reach and interaction.

Is supported. The overall structural model explains a substantial proportion of variance in customer engagement, reinforcing the combined importance of the three strategic dimensions examined.

Discussion

The results show that there are three most important strategic factors to improve deep learning in terms of platform diversity, quality of content and interaction strategy in universities. These findings shed light on the highest impact strategic levers for university audiences and provide a nuanced view of how engagement evolves, as opposed to only considering social media strategy in aggregate. This is consistent with the role of digital communities in determining perceived quality of relationships between schools and students, where existing and potential students scrutinize schools' authenticity throughout social media platforms (Soares et al., 2022).

That content quality is the number one predictor of engagement, suggests that what universities say and how they present their messages carries great weight. This is important for gaining and holding students' attention, as well as engaging them to participate. Prior research also supports this view in suggesting that when learners find the content relevant, consistent and emotionally appealing, they are more likely to think cognitively and experience a greater emotional response leading to higher participation (Alalwan et al., 2017). Recent studies corroborate the relevance of narrative coherence, visual attractiveness and storytelling in increasing institutional relatability as enhancing responses to university content is concerned on visually-telling based platforms (Capriotti et al., 2023). From a practical standpoint, these findings indicate that the role of content in universities should be understood to be akin to more than just an informational output – rather it may play a part as vehicle for structuring relationships and facilitating engagement through perceived value and emotional attachment.

Although being the smallest factor among the three predictors, interaction strategy plays an important theoretical role. Listening, responding and enabling conversation are all measures of relationship dynamics. Studies have demonstrated that institutions can enhance relational trust and cognitive and emotional engagement via interactive communication (e.g., replying the comments, question and prompting user to participate) (Al-Rahmi et al., 2022). This is particularly relevant in the context of higher education, where attitudes towards approachability and transparency strongly affect students' attitude to following subsequent conversations with the institutional accounts (Song et al., 2023).

Also worth noting is the variety of platforms used, further evidence that an institution's site on various digital ecosystems can impact levels of engagement. Institutions that organize multiple platforms strategically to connect with student populations across demographic groups and to tailor their messaging based on the platform have better opportunities in creating deeper connections more often (Pawar, 2014). Today's scholarship on transmedia and multi-platform strategies suggests that the heightened visibility afforded by these activities also provide

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multiple "entry points" to institutional narratives: often a very valuable goal, especially for digitally native audiences who journey across platforms with ease (Appel et al., 2020). In order to maintain student engagement in Indonesia, where there are popular short-form and mobile-based content platforms, universities could use different platforms as an opportunity by optimizing their communication strategies according to audience preference and what each platform has to offer.

All in all, the above findings are consistent with the argument that social media is more than broadcasting; it's a strategic platform for engagement and adding value. Institutions can then identify initiatives that hold more potential for engagement leverage on each of these strategic dimensions in their unique contexts. However, the findings suggest that engagement is best developed through an integrated technique of high-quality content implementation, mutual relationship processing and cross-platform presence (Ruangkanjanases et al., 2022). This is congruent with the model structure and hypothesis framework of the study, focusing on direct contributions of each strategic dimension (instead of a composite higher-order construct).

CONCLUSION

There are three key aspects of a university's social media strategy that have an impact on how successful the institution is in engaging with students - its use of platforms, interaction methods and quality content used. Against a backdrop of an ever-growing digital learning environment, this study attempts to tackle both the practical and theoretical questions around how HEIs can use social media for education and long term engagement.

The results indicate that all three aspects do influence and have a positive relationship with consumer engagement, content quality being the most significant factor. This highlights the need for universities to provide timely, cohesive and persuasive messages that foster appropriate ways of thinking, feeling and acting which are congruent with students' learning. In addition, organizations must participate on channels things like Twitter or else engage in open two-way communication which helps build trust and keep the student engaged.

Theoretically, this study further elucidates the unique roles of strategic social media dimensions in influencing engagement in higher education. It adds to relationship-based views that see engagement as result of ongoing interactions and perceived value exchange. At a practical level, the results of this study indicate that for universities, content planning and production should be a focus in their engagement efforts. This must be coupled with interaction patterns responsive student and platform strategies which correspond to media use of the students. Shifting from one-way broadcasting to engagement-oriented conversations will help institutions strengthen their online relationships and disconnect less from core outreach strategies.

This study has recognized various limitations that need to be taken into account when interpreting the findings and planning future research. The cross-sectional nature of the study limits the ability to infer causational links and understanding change and dynamic of engagement. Second, the reliance on a single self-report questionnaire poses common method bias issues (Podsakoff et al.,1990), which may inflate the observed relationship as predictors and outcomes are assessed by the same method and source. Last but not least, the geographical area concentration is in Banten Province which might limit the generalizability of results to other regions with different institutional environment and digital behavior.

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To gain a more comprehensive understanding of temporal variations in engagement and establish causal inferences, future research should consider using longitudinal methodologies. Collecting data from multiple sources, taking measurements at different points in time, and using platform analytics to derive behavioral engagement metrics are examples of statistical or procedural treatments for common engineering biases that can be used in research. To better understand how platform features and audience segments influence engagement, it would be beneficial to include more platforms and locations in research. YouTube, LinkedIn, and institutional digital portals are some examples of such platforms. A more nuanced explanation of engagement factors could be achieved by incorporating contextual variables such as demographic differences, student digital literacy, or institutional brand perceptions.

This study found that colleges and universities can increase student engagement by meeting their media needs and habits by improving the quality of their content, maintaining interactive communication, and using multiple platforms. As the digital world becomes increasingly competitive, schools that prioritize students and encourage them to engage on social media will have a better chance of building trust, maintaining relationships, and enhancing institutional value.

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