

Predicting Customer Engagement through Social Media Platform Technical Features: Evidence from Food and Beverage Establishments in Tanguib City

Jarwenna M. Tuttuh^{1*}, Sheenah Mae A. Delvo^{2,2}

¹University of Northwestern Mindanao

²La Salle University – Ozamiz

*jarwenna.tuttuh@nmsc.edu.ph, ²sheenahmae.delvo@lsu.edu.ph

Date Submitted:
February 21, 2026

Date Accepted:
April 12, 2026

Date Published:
July 09, 2026

DOI:
10.5281/zenodo.21277057

ABSTRACT

The study utilized a descriptive-correlational and predictive quantitative research methodology to identify whether the degree to which customers perceive that various technical characteristic of social media platforms (i.e., the social media platform itself) will influence how engaged those same customers will be with regard to a particular food and beverage establishment's use of that social media platform. A total of 299 responses from the sample of 300 participants who had viewed or used Facebook pages of food and beverage establishments prior to or in conjunction with making a decision regarding where they would dine were collected via an on-line survey. The researchers investigated four different technical feature categories for social media platforms; completeness, flexibility, evolvability and integration. The researchers assessed customer

engagement across five distinct categories: enthusiasm, attention, absorption, interaction and identification. Descriptive statistics (means), Cronbach's Alpha, and multiple linear regression analyses were applied to investigate the results obtained from the data. Overall, the results indicated that the technical features of the Facebook pages surveyed by the participants were highly influential to them, but their levels of engagement varied greatly. The reliability of the survey instrument was found to be extremely reliable based upon Cronbach's Alpha ($\alpha = .964$). Additionally, the regression analysis suggested that there is a statistical relationship between the technical features of Facebook pages (e.g., completeness, flexibility, evolvability, etc.) and customer engagement ($F[4, 294] = 218.14$; $p < .001$; $R = .865$; $R^2 = .748$; $\text{adj } R^2 = .745$). These findings indicate that approximately 74.8% of the variability in customer engagement can be accounted for by the technical features of the Facebook pages. Of the technical features identified in this study, three (completeness, evolvability and integration) were shown to be statistically significant and thus likely to predict customer engagement. Flexibility was not found to be statistically significant. It was also noted that integration was the most influential factor when predicting customer engagement. Thus, it appears that customers are more likely to engage with a food and beverage establishment if its Facebook page has functional uses and connections that allow customers to obtain information about the organization and assist customers in connecting with one another. Because the study utilized a cross-sectional survey methodology, caution should be taken when interpreting these results as indicative of causal relationships between the technical features examined and customer engagement.

Keywords: *customer engagement, food and beverage establishments, social media, technical features, Tanguib City*

INTRODUCTION

Social media is growing in importance as a means of communication among businesses and customers. More than ever, social media is being used by consumers to research many things regarding a specific restaurant including but not limited to what is on the menu, prices for items on the menu, promotions offered by restaurants, service quality, location(s) of restaurants and service updates before making a decision as to which establishment to dine at. Ongoing dialogue, referred to as customer engagement between a consumer and/or group of consumers and a business is considered a multi-point interaction across all aspects of a good/service purchase cycle. There is also a positive correlation between customer engagement and customer satisfaction. Additionally, there is a positive correlation between customer engagement and loyalty to a particular brand. A final positive correlation exists between customer engagement and advocacy for a specific brand. (Lim et al., 2022; Rosado-Pinto & Loureiro, 2020).

Social media platforms possess technical features which impact upon how consumers utilize them to obtain information regarding companies' offerings; engage in communication with those same companies; and interact with others via various forms of social media. Examples of such features include the comprehensiveness of data available on each respective platform, the extent to which users may employ these platforms in whatever manner suits their needs best, the ability of each platform to evolve continuously over time; and/or how effectively each platform integrates into existing processes or services. Studies conducted prior to this current study described social media platforms as digital spaces wherein interaction and content exchange occur (Fu et al., 2020; Alaimo et al., 2020); users may personalize their experiences within these digital spaces utilizing social media profiles and notification systems (Woodcock & Johnson, 2021); and that these features facilitate the delivery of information in real time. As consumers typically seek out similar types of information when deciding where to dine, including visual images and text-based posts; the characteristics listed above apply particularly to restaurants and bars providing food and beverages.

While research examining the interrelationship between social media utilization and customer engagement has proliferated, there exists a clear need to investigate whether specific technical aspects of social media usage result in varying levels of customer engagement in specific regional food and beverage markets. Many newly emerging coffee shops and restaurants in Tangub City currently utilize social media platforms to connect with potential customers; yet limited or outdated information contained in some social media platforms may impede potential customers from accessing the information required to assist in making informed decisions about where to dine. Therefore, this study identifies a local void by investigating if specific technical attributes of social media platforms significantly predict customer engagement among food and beverage consumers in Tangub City.

This study draws from two theoretical models. First, the Model of Technology Features developed by Prahalad and Ramaswamy (2004) indicates that technology features such as the degree of completeness, flexibility, evolution and integration contribute toward shaping user experience. Second, the Customer Engagement Model established by So et al. (2014) indicates that enthusiasm, attention, absorption, interaction and identification represent dimensions of customer engagement. Thus, together these models suggest that effective design and functionality of social media platforms may increase frequency and depth of customer interaction and enhance overall customer engagement.

Specifically, this study sought to answer four questions. First, to provide a descriptive summary of the demographic characteristics of the sample participants based on age, gender and education level. Second, to assess customers perceptions of the technical characteristics of social media platforms with respect to completeness, flexibility, evolution and integration. Third, to assess the level of customer engagement displayed by participants with respect to enthusiasm, attention, absorption, interaction and identification. Finally, fourth, to assess whether selected technical characteristics of social media platforms serve as significant predictors of customer engagement.

METHODS

Research Design

The methodology for this study involved a descriptive-correlation, predictive quantitative approach. The Descriptive Part of Methodology identified Characteristics of Participant's Profile; How Participants Perceived the Technology of Social Media Platforms Used by Selected Food and Beverage Establishments in Tangub City, Misamis Occidental; And Level of Customer Engagement. The predictive portion of the methodology was concerned with utilizing multiple linear regression to establish which (if any) of the variables; completeness, flexibility, evolvability, and integration, would predictably contribute to an establishment's ability to achieve higher levels of customer engagement.

Research Locale

This study sampled customers from select food and beverage businesses in Tangub City, Misamis Occidental. To qualify for inclusion into this study, the selected business entities were required to have a current active social media account(s); specifically, Facebook page(s), where menu offerings are posted, along with promotional offers, event notifications and/or general information related to potential customers. A total of 299 customers participated in this study. These individuals ranged in age from 21-60 years old and had previously accessed and/or used Facebook pages associated with food and beverage establishments relative to making decisions regarding dining

Sampling Technique

This study employed a purposive-convenience sampling technique in selecting the respondents. Purposive sampling was utilized because the participants were chosen based on predetermined inclusion criteria relevant to the objectives of the study, specifically customers aged 21 to 60 years old who had accessed or used the Facebook pages of selected food and beverage establishments in Tangub City, Misamis Occidental. Convenience sampling was also applied since the survey questionnaire was administered electronically through Google Forms and social media platforms. This approach enabled the researchers to reach qualified respondents who were available, accessible, and willing to participate in the study. A total of 299 qualified customers served as respondents of the study.

Research Instrument

Reliability analysis was performed on the questionnaire to determine its internal consistency. The overall reliability value for the questionnaire was .964 which represents excellent internal consistency. When individual questions were removed from the questionnaire and reliability analyses were run on those remaining questions, reliability values continued to remain extremely high. Thus all of the questions were retained and deemed acceptable for statistical analysis purposes. Reliability values can only be generated at a scale level when the sub-scale has been calculated individually. Permission was requested prior to conducting the surveys. Respondents were provided explicit directions to complete the electronic questionnaire. Additionally, respondents were notified that their participation in the survey was strictly voluntary and that their answers would be treated as anonymous and confidential after completion of the data collection process. Finally, after the data collection process was completed, responses were reviewed for completeness and then coded for subsequent statistical analysis.

Frequency and percent distributions were applied in order to assess respondent demographics. To assess respondent perceptions of technology of social media as well as respondents' degree of customer engagement mean scores and standard deviations were used. Cronbach's Alpha coefficient was used in order to establish the reliability of the measuring instrument. A multiple regression analysis was conducted to determine whether or not specific characteristics of social media platforms (predictor variables) contributed to respondents' degree of customer engagement. The level of significance for all statistical tests was set at .05. In addition, VIF (variance inflation factor) and Tolerance values were assessed to determine the presence of significant correlations among predictor variables. Due to the cross-sectional nature of this study's methodology only predictive/ associative conclusions regarding regression findings can be established.

RESULTS AND DISCUSSION

A total of 299 responses were analyzed. Table 1 shows that most respondents were female (58.9%), aged 21-30 years old (77.3%), and college level in educational attainment (59.9%).

Table 1. *Demographic profile of respondents (N = 299)*

Profile	Category	Frequency	Percentage
Sex	Female	176	58.9%
	Male	123	41.1%
Age	21-30	231	77.3%
	31-40	48	16.1%
	41-50	16	5.4%
	51-60	4	1.3%
Highest Educational Attainment	College Level	179	59.9%
	Bachelor's Degree	78	26.1%
	Master's Degree	25	8.4%
	High School	17	5.7%

Note. Percentages may not total 100 because of rounding.

Reliability analyses indicated an exceptionally high internal consistency for the total survey instrument Cronbach's alpha was .964. Results from the descriptive statistics are shown in Table 2. Technical characteristics were generally viewed as having significant influence on customer engagement (M=3.39; SD=.40). Technical completeness, which is the most important feature within this category (M=3.49; SD=.44) was followed closely by technical evolvability (M=3.44; SD=.46); technical integration (M=3.34; SD=.46) and technical flexibility (M=3.29; SD=.55). Customer engagement means totaled to 3.34 (SD = .44) and indicate that customers are extremely engaged with the firm. With regard to enthusiasm for customer engagement, it was the highest mean value (M = 3.52; SD = .40).

Table 2. *Descriptive results of study variables*

Variable	Mean	SD	Verbal Interpretation
Completeness	3.49	0.44	Very Influential
Flexibility	3.29	0.55	Very Influential
Evolvability	3.44	0.46	Very Influential
Integration	3.34	0.46	Very Influential
Overall Technical Features	3.39	0.40	Very Influential
Enthusiasm	3.52	0.40	Very High
Attention	3.33	0.49	Very High
Absorption	3.25	0.56	High
Interaction	3.26	0.56	Very High
Identification	3.34	0.49	Very High
Overall Customer Engagement	3.34	0.44	Very High

Note. Scale: 3.26-4.00 = Strongly Agree/Very High or Very Influential; 2.51-3.25 = Agree/High or Influential.

It was determined that the Multiple Linear Regression Model was statistically significant as evidenced by $F(4, 294) = 218.14; p < .001$. The four technical features explained 74.8% of the variance in customer engagement, $R = .865, R^2 = .748, \text{adjusted } R^2 = .745$. As shown in Table 3, completeness, evolvability, and integration significantly predicted customer engagement. Flexibility was not a significant predictor. Integration had the strongest standardized effect ($\beta = .448$), followed by completeness ($\beta = .291$) and evolvability ($\beta = .192$).

Table 3. *Multiple linear regression predicting customer engagement*

Predictor	B	SE	beta	t	p	VIF
Intercept	0.087	0.114	-	0.760	.448	-
Completeness	0.291	0.041	.291	7.067	< .001	1.98
Flexibility	0.054	0.031	.068	1.740	.083	1.79
Evolvability	0.185	0.039	.192	4.742	< .001	1.91
Integration	0.427	0.044	.448	9.702	< .001	2.49

Note. Model fit: $R = .865$, $R^2 = .748$, adjusted $R^2 = .745$, $F(4, 294) = 218.14$, $p < .001$. Dependent variable: Customer Engagement. VIF values below 5 indicate no serious multicollinearity.

Social Media Technical Features Influence Customers' Perceptions of Food Service Providers

Overall, the data suggest that most consumers perceive social media technical attributes of foodservice providers as very important. As a result, it appears that many consumers find pages that provide full information, current content, and useful functions to assist in making informed dining decisions important. Also, the high degree of consumer engagement shown by this study indicates that social media pages for restaurants can create excitement about their offerings, encourage customers to focus on them, facilitate interactions with each other regarding these businesses, and foster an identity among customers who frequently dine at those restaurants.

Of the four social media technical attributes we examined in this study, Integration has the largest association with customer engagement. Thus, the results indicate that customers tend to engage with foodservice providers when they have an experience using their social media pages that is easy to understand and use, as well as provides additional helpful features including the ability to communicate with them via messaging, get directions to their locations, read reviews from other diners, obtain menu information and access other digital touchpoints. These findings support the idea that social media are more than just sharing places for customers. They are also service environments where customers expect to have positive experiences when interacting with the business and having access to all necessary information. (Busalim & Ghabban, 2021; Morgan-Thomas et al., 2020).

Additionally, Completeness was another attribute which showed a large association with customer engagement. In the case of foodservice providers, consumers require completeness and reliability of information within a social media page. Examples of this type of information include items available on a menu, pricing of menu items, operational hours, location(s) of the restaurant, promotional offers and other types of up-to-date announcements. If consumers perceive that a provider's social media page is providing them complete and reliable information, they will feel more confident in evaluating the quality of the establishment and be more inclined to interact with posts related to the establishment or even consider visiting.

Finally, Evolvability demonstrated significance indicating that consumers responded positively when social media pages were continuously updated and/or improved over time, as well as responding to changes in consumer preferences. Flexibility did not demonstrate a significant association with customer engagement when considering the three previously discussed technical features. This could imply that consumers of local food and beverage establishments tend to be more concerned with obtaining complete, updated and integrated information than they are with receiving customizations or options for personalization. Alternatively, flexibility may not be as evident on Facebook pages for local food and beverage establishments due to various features such as menus, comments, messaging, reviews, and updates. While this does not preclude establishments from providing flexibility options for their customers, it would appear to be beneficial if establishments made flexible options more apparent to their customers through customized responses to their inquiries, segmented promotions based upon demographics/psychographics etc., varying forms of content, and customer specific service options.

CONCLUSION

The research found that food and beverage consumers' perceptions of their use of technical functions on platforms they have for social media directly influence the level of consumer interaction at an establishment's page. Most of the variation in levels of customer interaction were accounted for by the model of regression. Therefore, it is likely that technical aspects will play a major role in determining how consumers react to and interact with the pages of establishments online. While completeness, evolvability, and integration were found to be statistically significant indicators of the strength of interactions, there was no statistical significance found regarding flexibility. It appears that integration has the greatest potential to be used as a tool by companies; therefore, having a connected and simple experience through social media is important. Because this research was based on survey data collected from one point in time (cross-section) caution should be exercised when interpreting these results.

REFERENCES

- Agnihotri, R. (2020). Social media, customer engagement, and sales organizations: A research agenda. *Industrial Marketing Management*, 90, 291-299.
- Alaimo, C., Kallinikos, J., & Valderrama, E. (2020). Platforms as service ecosystems: Lessons from social media. *Journal of Information Technology*, 35(1), 25-48.
- Busalim, A. H., & Ghabban, F. (2021). Customer engagement behaviour on social commerce platforms: An empirical study. *Technology in Society*, 64, 101437.
- de Oliveira Santini, F., Ladeira, W. J., Pinto, D. C., Herter, M. M., Sampaio, C. H., & Babin, B. J. (2020). Customer engagement in social media: A framework and meta-analysis. *Journal of the Academy of Marketing Science*, 48, 1211-1228.
- Fu, S., Li, H., Liu, Y., Pirkkalainen, H., & Salo, M. (2020). Social media overload, exhaustion, and use discontinuance: Examining the effects of information overload, system feature overload, and social overload. *Information Processing & Management*, 57(6), 102307.
- Jacobson, J., Gruzd, A., & Hernández-García, Á. (2020). Social media marketing: Who is watching the watchers? *Journal of Retailing & Consumer Services*, 53, 101774.
- Lim, W. M., & Rasul, T. (2022). Customer engagement and social media: Revisiting the past to inform the future. *Journal of Business Research*, 148, 325-342.
- Lim, W. M., Rasul, T., Kumar, S., & Ala, M. (2022). Past, present, and future of customer engagement. *Journal of Business Research*, 140, 439-458.
- Moran, G., Muzellec, L., & Johnson, D. (2020). Message content features and social media engagement: Evidence from the media industry. *Journal of Product & Brand Management*, 29(5), 533-545.
- Morgan-Thomas, A., Dessart, L., & Veloutsou, C. (2020). Digital ecosystem and consumer engagement: A socio-technical perspective. *Journal of Business Research*, 121, 713-723.
- Prahalad, C. K., & Ramaswamy, V. (2004). *The future of competition: Co-creating unique value with customers*. Harvard Business School Press.
- Rosado-Pinto, F., & Loureiro, S. M. C. (2020). The growing complexity of customer engagement: A systematic review. *EuroMed Journal of Business*, 15(2), 167-203.
- So, K. K. F., King, C., Sparks, B. A., & Wang, Y. (2014). The role of customer engagement in building consumer loyalty to tourism brands. *Journal of Travel Research*, 55(1), 64-78.
- So, K. K. F., Li, X., & Kim, H. (2020). A decade of customer engagement research in hospitality and tourism: A systematic review and research agenda. *Journal of Hospitality & Tourism Research*, 44(2), 178-200.
- Woodcock, J., & Johnson, M. R. (2021). Live streamers on Twitch.tv as social media influencers: Chances and challenges for strategic communication. In *Social media influencers in strategic communication* (pp. 88-102). Routledge.