

A Comparative Study of Customer Engagement: Facebook and Instagram

Assoc. Prof. Mária Oleárová, PhD., MBA
University of Prešov in Prešov
Department of Marketing and International Trade
Konštantínová 16, 080 01 Prešov, Slovakia
maria.olearova@unipo.sk

Abstract

The aim of this article is to analyze differences in customer engagement on the social media platforms Facebook and Instagram across three dimensions: cognitive, emotional, and behavioral. The research employed a quantitative approach using an electronic. Data were collected via Facebook and Instagram, with a total sample of 261 respondents. The Mann–Whitney U test was applied to verify the research hypotheses. The results revealed statistically significant differences in favor of Facebook for the cognitive and behavioral dimensions, while the emotional dimension showed no significant differences. The findings suggest that Facebook generates a higher level of brand interaction; however, Instagram also presents strong potential for developing customer engagement when supported by an appropriate communication strategy.

Key words

customer engagement, social media, comparative analysis

Information

This work was supported by the Slovak Grant Agency under VEGA - 1/0488/22 - Research on Digital Marketing in Tourism with an Emphasis on Sustainability Principles in the Post-Pandemic Market Environment

1. Introduction

In the contemporary marketplace, where consumers have access to a wide range of alternatives and an extensive array of products available online, customer loyalty has emerged as one of the most critical challenges for companies. The ability to retain existing customers generally proves to be more cost-effective than attracting new ones. Consequently, firms seeking to outperform their competitors must focus on cultivating long-term relationships with their customers. From a strategic standpoint, it is therefore essential to engage target audiences in meaningful interactions with the brand, thereby fostering customer engagement. Numerous studies have examined this phenomenon from diverse perspectives.

For instance, Farook and Abeysekara (2016) investigated the influence of social media marketing on customer engagement through a survey of 150 Facebook fans of a brand in Sri Lanka. Their findings revealed

that the type of medium and content significantly affects engagement, with broader marketing reach enhancing customer participation. Similarly, Carlson et al. (2018) explored how the design of online brand services impacts perceived value and customer engagement. Based on a sample of 654 American Facebook users, their study demonstrated that content quality, interactivity, social presence, and contact quality indirectly foster perceived brand value and subsequent engagement.

Chiang et al. (2017) analyzed the impact of social media advertising on user behavior. Their online survey of 502 Facebook users showed that social connections, entertainment, and interactivity exert the strongest influence on advertising engagement. Strengthening consumers' emotional connection with the brand was also found to increase satisfaction and further engagement. In a related study, Chen et al. (2021) examined customer motivation as a foundational factor of engagement within social media contexts. Drawing on 565 valid responses, the authors concluded that motivations related to information seeking, entertainment, and social interaction significantly shape brand experience, with social interaction exerting the most substantial influence. In turn, a richer brand experience enhances customer engagement.

In the study by Valenzuela-Gálvez et al. (2023), the use of emojis in email marketing was found to enhance customer engagement by increasing open rates and stimulating greater interest in content. Cao et al. (2021) examined how the context of social media moderates the relationship between consumers' engagement intentions and their actual engagement behaviors. Using a sample of 721 social media users in the fashion industry, they discovered that media richness positively affects engagement across three behavioral levels—consumption, contribution, and creation—while content credibility showed no significant effect.

Whereas these studies predominantly focused on engagement within a single social media platform, the present study investigates how consumers engage across multiple platforms. The aim of this research is to conduct a comparative analysis of primary data to better understand consumer behavior across different social media environments, particularly regarding their use of these platforms for brand communication. The paper first provides a review of the literature concerning the three dimensions of customer engagement, followed by an explanation of the research methods applied, and finally presents and discusses the empirical findings.

2. Theoretical Framework

The concept of customer engagement represents a relatively recent development in the field of marketing (Hollebeek and Chen 2014). Despite its comparatively short history, numerous studies have explored consumer engagement from a variety of perspectives. Most conceptualizations include both the subject and object of engagement, as well as varying degrees of intensity (Hollebeek 2011; Patterson et al. 2015). According to the *Economist Intelligence Unit* (2007), engagement refers to the creation of experiences that enable firms to build deeper, more meaningful, and more sustainable interactions between the company and its customers or other external stakeholders.

In the marketing literature, customer engagement is commonly viewed as a multidimensional psychological construct that reflects the depth and intensity of the relationship between a customer and a brand (Brodie et al. 2011). Most scholars agree that engagement encompasses three key dimensions—cognitive,

emotional, and behavioral (Hollebeek 2011; Dessart et al. 2015). Together, these dimensions form a comprehensive model of interaction in which mental processes, emotional connections, and active customer behaviors complement one another.

Cognitive Dimension

The cognitive dimension of engagement refers to the customer's mental investment in the brand—the level of attention, concentration, and thought directed toward it (Hollebeek 2011). A customer exhibiting high cognitive engagement devotes mental effort to understanding the brand, assessing its value proposition, and comparing it with competitors. According to So et al. (2014), the cognitive dimension is a significant predictor of loyalty and customers' willingness to recommend the brand. Empirical evidence suggests that cognitive engagement is generally more difficult to stimulate than emotional engagement, yet when present, it substantially enhances long-term perceptions of brand value.

Emotional Dimension

The emotional (affective) dimension represents the consumer's emotional connection with the brand, characterized by feelings of enthusiasm, joy, passion, or pride in interacting with it (Hollebeek and Chen 2014). As shown by Dessart et al. (2015), emotional attachment strengthens brand identification and fosters a deeper psychological commitment. Studies consistently demonstrate that emotional factors tend to exert a more immediate influence on consumer engagement than cognitive ones, as they are directly shaped by visual and social elements of brand communication.

Behavioral Dimension

The behavioral dimension encompasses customers' actual actions toward the brand—such as commenting, sharing content, writing reviews, or making repeat purchases (Van Doorn et al. 2010). According to Brodie et al. (2011), this dimension represents the visible manifestation of engagement, typically arising from a combination of cognitive and emotional drivers. Research by Vivek et al. (2012) confirmed that behavioral engagement contributes to increased loyalty, positive word-of-mouth, and the overall strengthening of brand relationships.

Multiple empirical studies indicate that these three dimensions are interconnected rather than independent. Hollebeek (2011) argues that cognitive engagement often serves as the *entry point* that triggers emotional responses, which in turn lead to behavioral actions. Dessart et al. (2015) propose that emotional engagement functions as a *mediator* between cognitive awareness and concrete customer behaviors. This sequential mechanism has also been validated in online contexts; for example, Harrigan et al. (2018) found that users' emotional involvement on social media significantly increases the likelihood of behavioral expressions such as commenting or sharing content.

3. Methodology

For the purpose of data collection, a research instrument in the form of a questionnaire was employed. The questionnaire was designed electronically using the Google Forms platform. The study follows a quantitative research design, and both the questionnaire structure and the variables included were adapted from the

prior scientific study by Vinerean and Opreana (2021) to suit the objectives of the present research. The questionnaire consisted of three sections, and respondents completed it anonymously.

Table 1 Latent variables

Dimensions of Customer Engagement	Cognitive	RZAK_1	Visiting the page of my selected brand on the chosen social media platform stimulates my interest in learning more about the company and its products.
		RZAK_2	Whenever I visit the page of my selected brand on the chosen social media platform, time passes quickly because I am engaged by the useful information it provides.
		RZAK_3	I use my selected brand and visit its page on social media because it captures my attention with valuable and informative content.
		RZAK_4	I find the posts of my selected brand on the chosen social media platform to be very useful.
	Emotional	RZAE_1	I really enjoy using my selected brand and interacting with it on the given social media platform.
		RZAE_2	I feel very excited whenever I visit the page of this brand on the given social media platform.
		RZAE_3	The posts published by this brand on social media are entertaining to me.
		RZAE_4	I feel emotionally attached to the brand with which I interact through social media.
	Behavioral	RZAB_1	I am willing to participate in the development of new products, services, or features of the selected brand through social media.
		RZAB_2	I have "liked," "commented on," and/or "shared" posts published by the selected brand on the chosen social media platform.
		RZAB_3	In general, I feel motivated to actively engage with the posts published by my selected brand on social media.

(Source: own elaboration)

To gain a clearer understanding of the characteristics of our respondents, the first section of the questionnaire focused on collecting demographic data. The second section examined the three dimensions of customer engagement with the brand, consisting of cognitive, emotional, and behavioral factors. Respondents expressed their level of agreement or disagreement using a five-point Likert scale. The questionnaire was distributed to participants via the social media platforms Facebook and Instagram, and additionally through direct, in-person invitations using a QR code.

In the field of inferential statistics, the first step involved conducting a normality test using the Lilliefors test, which is appropriate for larger data samples. Based on the test results, it was possible to determine whether the individual items followed a normal distribution. These findings guided the selection of suitable statistical procedures for hypothesis testing. Given the distributional characteristics of the data, a non-parametric test, specifically the Mann–Whitney U test, was employed. To provide deeper insights into certain results, boxplot

graphs were also used as a supplementary visualization tool (only their interpretations are presented in this paper).

For the purposes of this research, 261 valid responses were collected. The sample consisted of 95 men (36%) and 166 women (64%). The age of respondents ranged from 17 to 78 years, indicating broad coverage across age categories. The most represented ages were 24 and 26 years, each with 16 respondents. The largest age group comprised participants aged 17 to 29 years, totaling 124 respondents. The average age of respondents was 34 years.

4. Results and discussion

The Mann–Whitney U test was applied to verify Hypothesis H4, which focused on the cognitive dimension of customer engagement. As presented in Table 2, the p -value for each item was found to be below the significance level of $\alpha = 0.05$. This leads us to accept Hypothesis H4, concluding that there are statistically significant differences between the Facebook and Instagram social media platforms in terms of the cognitive dimension of customer engagement. For each of these items, boxplot graphs were subsequently generated to identify the observed tendencies (only their interpretations are presented in this article).

Table 2 Verification of Research Hypotheses – Cognitive Dimension of Customer Engagement

	RZAK_1	RZAK_2	RZAK_3	RZAK_4
<i>Mann-Whitney U</i>	9764.00	9757.00	10179.00	10388.00
<i>Wilcoxon W</i>	17167.00	17174.00	16752.00	16543.00
<i>Z</i>	2.14545	2.13393	2.82824	3.17210
<i>p-value (two tailed)</i>	0.03192	0.03285	0.00468	0.00151

(Source: own elaboration)

For the item RZAK_1 (“Visiting the page of the selected brand on my chosen social media platform stimulates my interest in learning more about the company and its products”), a difference can be observed in the values of the upper quartile (Q3). The social network Facebook reached a value of 5.00, while Instagram achieved a value of 4.00. This indicates that Facebook exhibits a higher tendency for this item. The median value, however, was identical for both platforms, at 4.00. Regarding RZAK_2 (“Whenever I visit the page of the selected brand on the chosen social media platform, time passes quickly because I am engaged by useful information”), the decisive statistical indicator is the median, which differs between the two platforms. A higher median value, and therefore a higher tendency, was observed for Facebook (4.00) compared to Instagram (3.00).

For RZAK_3 (“I use the selected brand and visit its page on social media because it captures my attention with useful information”), differences were identified in both the upper (Q3) and lower (Q1) quartiles. Again, Facebook showed higher tendencies, with an upper quartile value of 5.00 and a lower quartile value of 3.00. Finally, the item RZAK_4 (“I find the posts of the selected brand on my chosen social media platform to be very useful”), which also pertains to the cognitive dimension of customer engagement, revealed differences

in the median. The results show a higher median value, and thus a higher tendency, for Facebook (4.00) compared to Instagram (3.00).

Table 3 Verification of Research Hypotheses – Emotional Dimension of Customer Engagement

	RZAE_1	RZAE_2	RZAE_3	RZAE_4
<i>Mann-Whitney U</i>	9232.00	9011.50	8982.50	9262.50
<i>Wilcox W</i>	17699.00	17919.50	18993.50	17668.50
<i>Z</i>	1.27016	0.90737	-0.85966	1.32034
<i>p-value (two tailed)</i>	0.20403	0.36421	0.38998	0.18672

(Source: own elaboration)

As shown in Table 3, from an emotional perspective, none of the items reached a p -value lower than the level of significance. Based on this finding, we reject Hypothesis H5, concluding that there are no statistically significant differences between the Facebook and Instagram social media platforms in terms of the emotional dimension of customer engagement. The final hypothesis, H6, aimed to verify the behavioral dimension of customer engagement and to determine whether statistically significant differences exist between the two platforms. The corresponding results are presented in Table 4.

Table 4 Verification of Research Hypotheses – Behavioral Dimension of Customer Engagement

	RZAB_1	RZAB_2	RZAB_3
<i>Mann-Whitney U</i>	9720.00	9421.00	9245.50
<i>Wilcox W</i>	17211.00	17510.00	17685.50
<i>Z</i>	2.07305	1.58111	1.29237
<i>p-value (two tailed)</i>	0.03817	0.11385	0.19623

(Source: own elaboration)

Based on Table 4, which presents the results for the behavioral dimension of customer engagement, it can be concluded that Hypothesis H6 is confirmed, as the p -value for the item RZAB_1 is lower than the level of significance ($\alpha = 0.05$). This indicates that there are statistically significant differences between the Facebook and Instagram social media platforms in terms of the behavioral dimension of customer engagement.

For the item RZAB_1 (“I am willing to participate in the development of new products, services, or features of the selected brand through social media”), higher values were observed on the side of Facebook. The decisive indicator in this case is the median, where Facebook achieved a value of 3.00, compared to 2.00 for Instagram. This suggests that, for this item as well, Facebook shows a higher tendency than Instagram.

The lower values recorded for Instagram may be explained by the fact that users tend to visit this platform primarily for entertainment purposes rather than for personalized interaction with brands. Overall, the results suggest that when consumers are sufficiently engaged by the information a brand provides on social media, they may lose track of time spent interacting with the content. For consumers, these platforms offer opportunities not only to learn about products but also to better understand the company itself. For businesses, such engaged consumers represent potentially loyal and actively involved customers.

In connection with Hypothesis H4, it can be assumed that although customers are cognitively engaged with the brand, this engagement may stem primarily from the desire to acquire interesting or relevant information, rather than from emotional attachment to the brand. However, these findings contradict the results of the study by Chiang et al. (2017), who, based on a sample of 502 internet users, concluded that focusing on strengthening the emotional connection between consumers and the brand enhances satisfaction, which in turn positively affects overall engagement. From this perspective, we recommend that future research further examine this dimension and its influence on customer engagement.

For the behavioral dimension, a positive outcome was also achieved. The item measuring consumers' willingness to participate in the development of new products through social media indicated a clear difference between Facebook and Instagram, again showing stronger tendencies for Facebook. Nevertheless, despite Facebook's higher engagement levels, it should be noted that Instagram can also serve as an effective platform for businesses, though it may require greater effort and time investment. Ultimately, this finding suggests that with the right strategic approach and communication style, companies can effectively influence customer behavior, encourage interaction, and enhance engagement across both social media platforms.

5. Conclusion

Since our conclusions are based on data collected from a specific sample of the population, they cannot be generalized to all consumers across Slovakia. Likewise, it can be assumed that the application of more advanced or complex statistical methods might yield different results. Furthermore, our findings are limited to the selected social media platforms, and therefore cannot be directly applied to others. Based on these considerations, we recommend further research in this field. Future studies could focus on analyzing customer engagement across other social media platforms, either by generalizing to a larger number of platforms or by conducting comparative analyses between two or more networks. It would also be valuable to investigate engagement within specific industry contexts, or to examine differences between genders in terms of their level and form of engagement. Given the continuing rise in the use of social media by both businesses and consumers, we consider it essential that future research devote greater attention to this area, as it represents a growing and strategically important aspect of digital marketing practice.

References

1. Brodie, R. J., L. D. Hollebeek, B. Juric, and A. Ilić. 2011. "Customer Engagement: Conceptual Domain, Fundamental Propositions, and Implications for Research in Service Marketing." *Journal of Service Research* 14(3):252–71.

2. Cao, D., et al. 2021. "Understanding Consumers' Social Media Engagement Behaviour: An Examination of the Moderation Effect of Social Media Context." *Journal of Business Research* 122(January):835–46.
3. Carlson, J., et al. 2018. "Customer Engagement Behaviours in Social Media: Capturing Innovation Opportunities." *Journal of Services Marketing* 32(18).
4. Dessart, L., C. Veloutsou, and A. Morgan-Thomas. 2015. "Consumer Engagement in Online Brand Communities: A Social Media Perspective." *Journal of Product & Brand Management* 24(1):28–42.
5. Economic Intelligence Unit. 2007. „*Beyond Loyalty: Meeting the Challenge of Customer Engagement*. 2nd ed.“ October 2
https://graphics.eiu.com/files/ad_pdfs/eiu_adobeengagementpt_ii_wp.pdf.
6. Farook, S. F., and N. Abeyssekara. 2016. "Influence of Social Media Marketing on Customer Engagement." *International Journal of Business and Management Invention* 5(12):115–25.
7. Harrigan, P., U. Evers, M. Miles, and T. Daly. 2018. "Customer Engagement and the Relationship between Involvement, Engagement, Self-Brand Connection and Brand Usage Intent." *Journal of Business Research* 88:388–96.
8. Hollebeek, L. D. 2011. "Demystifying Customer Brand Engagement: Exploring the Loyalty Nexus." *Journal of Marketing Management* 27(7–8):785–807.
9. Hollebeek, L. D., and T. Chen. 2014. "Exploring Positively- versus Negatively-Valenced Brand Engagement: A Conceptual Model." *Journal of Product & Brand Management* 23(1):62–74.
10. Chen, X., et al. 2021. "Examining Customer Motivation and Its Impact on Customer Engagement Behavior in Social Media: The Mediating Effect of Brand Experience." *Sage Open* 11(4):1–16.
11. Chiang, P. I., et al. 2017. "Customer Engagement Behaviour in Social Media Advertising: Antecedents and Consequences." *Contemporary Management Research* 13(3):193–216.
12. Chiang, P. I., et al. 2017. "Customer Engagement Behaviour in Social Media Advertising: Antecedents and Consequences." *Contemporary Management Research* 13(3):193–216.
13. Patterson, P., et al. 2015. "Converting Service Encounters into Cross-Selling Opportunities." *European Journal of Marketing* 49(3–4):491–511.
14. So, K. K. F., C. King, and B. Sparks. 2014. "Customer Engagement with Tourism Brands: Scale Development and Validation." *Journal of Hospitality & Tourism Research* 38(3):304–29.
15. Valenzuela-Gálvez, S. E., et al. 2023. "Boost Your Email Marketing Campaign! Emojis as Visual Stimuli to Influence Customer Engagement." *Journal of Research in Interactive Marketing* 17(3):337–52.
16. Van Doorn, J., K. N. Lemon, V. Mittal, et al. 2010. "Customer Engagement Behavior: Theoretical Foundations and Research Directions." *Journal of Service Research* 13(3):253–66.
17. Vinerean, S., and A. Opreana. 2021. "Measuring Customer Engagement in Social Media Marketing: A Higher-Order Model." *Journal of Theoretical and Applied Electronic Commerce Research* 16(7):2633–54.
18. Vivek, S. D., S. E. Beatty, and R. M. Morgan. 2012. "Customer Engagement: Exploring Customer Relationships beyond Purchase." *Journal of Marketing Theory and Practice* 20(2):122–46.