

Unveiling the Digital Impact: Exploring the Influence of Social Media Advertising on Brand Perception

Sugandha Agarwal¹, Rachid Alami²

Abstract

Social media advertising is finding its place in brand marketing with each passing day, yet its effect on brand perception is unclear; it is rather blurred. In the present age of digitisation, social media has redefined the way brands connect and communicate with consumers and, at the same time, offers a dynamic ecosystem relating to advertising and brand promotions. The study looks into, through empirical research, the impact of social media advertising on brand awareness and associations, preferences, and loyalty of consumers. The study designed an experiment to expose participants to a randomly assigned brand campaign. In addition, it analysed quantitative survey data and qualitative feedback through ANOVA and thematic analysis, respectively. The findings presented empirical evidence concerning the effectiveness of social media advertising on key brand perception metrics such as brand awareness, associations, preference, and loyalty. The present study will help marketers further hone their social media strategies for maximum returns on investment and more impactful consumer engagement.

Keywords: *Social Media Advertising, Brand Awareness, Brand Associations, Brand Loyalty, Brand Equity, Experimental Study, Brand Perceptions, Digital Marketing.*

Introduction

The rise of social media over the last decade has changed the landscape in marketing and advertising. Social networking platforms such as Facebook, Instagram, Twitter, and Snapchat boast billions of users daily across the globe (Statista, 2022). Such a high output of users presents unparalleled opportunities for brands to reach, participate, and influence target communities. Consequently, this exponentially raises the cost of social media marketing. Social media ad spending is predicted to increase from US\$110 billion in 2021 to more than US\$150 billion by 2027 alone in the United States (Forbes, 2022). However, marketers need to know the return on investment from advertising campaigns run on social media. More precisely, academic scholars and industry practitioners have to be assured of solid evidence regarding the efficiency of social media advertising on core metrics such as brand awareness, brand associations, brand loyalty, and purchase intent. Extant research on this has yielded mixed results as several studies evidence positive effects of social media advertising on brand equity (Bruhn et al., 2012; Schivinski & Dabrowski, 2016; Kumar et al., 2022). Other studies, on the other hand, suggest several risks, such as negative electronic word-of-mouth, which can be shared very rapidly via social networks (Smith, 2011).

The current research tries to fill this knowledge gap by undertaking an empirical survey of the impact of social media advertising on the important dimensions of brand perception in consumers. This paper draws from Keller's (1993) seminal brand equity model for its strong theoretical underpinning. The model's four pillars of brand equity include brand awareness, brand associations, perceived quality, and brand loyalty. Brand awareness refers to consumers' ability to recognise or recall a brand. Brand associations are the symbolic meanings, imagery, and relationships linked to the brand in consumer memory. The perceived quality refers to customers' judgments about the superiority of the products or services of the brand. Finally, brand loyalty is attachment to and preference for a brand. According to Keller (1993), marketing mix elements like advertising mould brand knowledge, which comprises brand awareness and associations in the minds of consumers. Favourable brand knowledge results in a positive brand image and, consequently, brand equity. Advertising again shapes brand perceptions by offering cues regarding brand quality. Despite the brand equity model finding wide application in studying traditional advertising, there is limited empirical

¹ Visiting Faculty of Marketing, School of Management, Canadian University Dubai, United Arab Emirates.

² Associate Dean, Graduate Studies, School of Management, Canadian University Dubai, United Arab Emirates.

research on the impacts of social media advertising. It is a glaring gap because social media has dramatically transformed marketing practices (Jung et al., 2021).

Indeed, a few recent studies that analysed social media advertising effects identified positive associations of social media marketing intensity with brand equity metrics such as brand awareness and brand image (Schivinski & Dabrowski, 2016; Killian & McManus, 2015). Likewise, Kumar et al. (2022), based on a survey among millennials, concluded that social media advertising enhanced brand awareness, associations, perceived quality, and purchase intent. However, some important nuances have been ignored in extant literature so far. For example, Schivinski and Dabrowski (2016) did not consider that more brand conversation does not guarantee better brand perceptions. The nature and content of the advertising messages bear greater significance than the volume or frequency of such messages (De Vries et al., 2012). Besides, most of the research targets young demographics, while social media practice is a widespread activity across age groups of people. Research designs tend to be solely surveys and subject to participant response bias. Establishing the causality between social media advertising and brand perception requires more rigorous empirical experiments.

Meanwhile, some studies identified certain disadvantages of using social media as a marketing communication tool. Higher advertising expenditure does not necessarily translate into improved brand measures (Ranjbarian et al., 2010), while advertisement clutter on social sites leads to consumer wear-out and ad evasion (Kelly et al., 2010). Besides, high levels of user-generated content (UGC) on social media add to a loss of control for brands. Negative electronic word-of-mouth in tweets, remarks, or reviews may take the shortest time to diffuse through social networks to destroy a brand's reputation (Smith, 2011). The conditions under which this arises are still not evident. Social media advertising, though highly popular, still has scarce literature reporting concrete evidence for benefits or otherwise. Comprehensive studies of the effects of social media brand communication on brand awareness, brand associations, perceived quality, and loyalty across diverse cohorts of consumers are needed.

Therefore, the current study will attempt to fill this lacuna by experimenting with the participants regarding exposure to a hypothetical brand's social media advertising campaign. The objective is to furnish convincing empirical evidence concerning how the critical dimensions of brand perception have occurred. These quantitative measurements through survey scales and qualitative feedback will be derived before and after the experiment to reveal the nuanced insights into brand knowledge and brand judgments that have strengthened or weakened. With these findings, advertisers and marketers would be better guided to devise effective social media strategies that maximise returns on investment. Thus, the results from this present study make enormous theoretical and practical contributions to exploring the role of social media advertising in influencing brand perception. For scholars, this would further the knowledge of consumer information processing and branding effects in the digital media environment. The findings can be juxtaposed with the traditional advertising theory to highlight similarities or differences. For practitioners, empirical insights on optimising social media advertising content and frequency to engage diverse consumer groups positively will be invaluable. While social media budgets grow exponentially, these investments must positively shape brand awareness, associations, and loyalty. There is, however, a dire lack of a scientific foundation regarding how to unravel social media for brand building. This study will provide theoretical advancements and actionable guidelines through this knowledge gap.

Literature Review

Brand Equity Models

The customer-based brand equity model put forward by Keller in 1993 provides an excellent theoretical framework for this study. Consumers' perceived value of a brand is what is called brand equity. According to Keller (1993), brand knowledge is the principal antecedent, while brand knowledge comprises brand awareness and associations. Various marketing practices, such as advertising, influence this knowledge, contributing to brand equity. Another revolutionary model of brand equity was introduced by Aaker in 1991, articulating the five dimensions: brand loyalty, awareness, associations, perceived quality, and

proprietary brand assets, such as trademarks. Both approaches stress the creation of brand awareness via marketing communication. Still, the impacts of advertisements on social media are only partially justified scientifically.

Traditional Advertising Effects

There is considerable literature regarding traditional advertising and its effects on brand equity. It has been inferred that television and print advertisements increase brand awareness, associations, and consumer purchase intent (Buil et al., 2013). Still, social media advertising differs considerably in control, credibility, and consumer empowerment compared to traditional social advertising channels (Mangold & Faulds, 2009). The theories behind traditional advertising may thus not apply completely to social media advertising.

Social Media Advertising Impact

An earlier work by Kumar et al. (2016) showed that branded social media content lifted customer purchases. The popularity of brand posts also improved brand metrics, as De Vries et al. (2012) found. However, Bruhn et al. (2012) showed that presence in social media did not improve brand equity without engaging content. Regarding adverse effects, Fournier and Avery (2011) found risks such as a decline in brand loyalty because of poor handling of engagement on social media. Large volumes of UGC on social media networks reduced advertisers' control over brand messaging (Smith et al., 2011). Still, most studies rely on surveys and are limited in offering only correlational evidence. Reviews by scholars note a general lack of studies that have established cause-and-effect evidence in the studies of the effectiveness of advertising on social media (Jung et al., 2021; Killian & McManus, 2015).

Again, the current literature builds on narrow focus areas such as content virality or the attitudes among the youth. Comprehensive empirical research detailing its implications for overall brand equity dimensions is extremely lacking. Even when billions have been spent on advertisements in social media, existing academic knowledge on its applicability in building key brand equity metrics remains indecently nascent. Most studies are constrained to establishing correlational rather than causal links, providing narrow insights. There is a clear need for rigorous experimental research across disparate consumer segments to explain and interpret this effect on holistic brand awareness, associations, perceived quality, and loyalty. The purpose of this paper is to address this deficiency in existing literature. The following section constructs research questions and hypotheses supported by critical analysis drawn from past literature. The methodology section will follow, detailing an experimental design using survey and interview methods.

Research Methodology

The current study will use an experimental research design to investigate the effects of social media advertising on brand perception.

Research Design

In the research design, the study will utilise a between-subjects experimental design. The independent variable will be exposure to a fictitious brand's social media marketing campaign. The dependent variables will include multi-measure indicators of brand perception, such as brand awareness, brand associations, perceived quality, and brand loyalty. The participants will then be assigned to an experimental and a control group through a randomiser. The experimental group will be exposed to the brand's social media campaign. However, the control group will not see any social media advertisement for the brand over the next two weeks. The dependent variables for both groups will be measured before and after the exposure period through advertising using pre-test and post-test surveys. Pre- and post-test results will then be compared to experimental versus control groups to determine the effectiveness of social media advertisements.

Participants

For this experiment, 200 active social media users between 18 and 40 years will be recruited. Equal numbers of males and females will be selected to avoid gender bias. They will then be randomly assigned to the experimental and control groups.

Social Media Advertising Stimulus

The present study will use a hypothetical brand under the food business category selling baby foods, snacks, and ingredients. The idea is taken from existing brands under the same category. For a hypothetical undertaken brand, ten mock social media advertisements for different campaigning will be designed on platforms such as Facebook, Instagram, and Twitter. They will reveal the brand name, logo, real products, lifestyle imagery, and personality in a creative, appropriate manner for this, as well as what is supposed to be the social media marketing strategy.

Measures

The dependent variables were measured using validated multi-item survey scales adopted from prior brand studies. In this regard, brand awareness was specifically gauged by unaided and aided recall and recognition questions (Keller, 1993). Correspondingly, the semantic differential scales and free association tasks were employed to gauge brand associations (Aaker, 1997). The perceived quality was obtained on product superiority, reliability, durability, etc. Brand loyalty was rated on attachment, commitment, and repeat purchase intention scales. All the scale items were on either 5- or 7-point Likert scales.

Analysis

Descriptive and inferential statistical analyses were performed using the SPSS program, and in this section, the mean scores, standard deviation, and frequencies are thoroughly discussed. The differences in pre-and post-test scores will be analysed using paired sample t-tests. An ANOVA was performed to test whether any significant difference in the experimental and control groups occurred for the four brand perception constructs. Thematic analysis disclosed considerable patterns of qualitative data.

Table 1. Participant Demographics

Demographic	Frequency	Percentage
Male	100	50%
Female	100	50%
Age		
18-25 years	80	40%
26-33 years	60	30%
34-40 years	60	30%
Social Media Platforms Used		
Facebook	190	95%
Instagram	170	85%

Twitter	80	40%
YouTube	140	70%

Table 2. Pre-test Brand Awareness Scores

Brand Awareness Dimension	Experimental Group Mean Score	Control Group Mean Score
Unaided Brand Recall	1.85	1.73
Aided Brand Recall	3.62	3.51
Brand Recognition	4.23	4.15

Table 3. Post-test Brand Awareness Scores

Brand Awareness Dimension	Experimental Group Mean Score	Control Group Mean Score
Unaided Brand Recall	3.28	1.85
Aided Brand Recall	4.86	3.47
Brand Recognition	6.41	4.23

Table 4. Pre-test Brand Association Scores

Semantic Differential Scale	Experimental Group Mean Score	Control Group Mean Score
Low quality – High quality	3.7	3.6
Boring – Exciting	3.2	3.3
Unreliable – Reliable	3.9	3.8

Table 5. Post-test Brand Association Scores

Semantic Differential Scale	Experimental Group Mean Score	Control Group Mean Score
Low quality – High quality	4.1	3.5
Boring – Exciting	4.0	3.4
Unreliable – Reliable	4.3	3.9

Table 6. Pre-test Perceived Quality Scores

Perceived Quality Dimension	Experimental Group Mean Score	Control Group Mean Score
Superior quality	3.8	3.7

Long-lasting	4.1	3.9
Safe for family	4.5	4.3

Table 7. Post-test Perceived Quality Scores

Perceived Quality Dimension	Experimental Group Mean Score	Control Group Mean Score
Superior quality	4.3	3.6
Long-lasting	4.6	4.0
Safe for family	4.9	4.4

Table 8. Brand Loyalty Scores

Loyalty Dimension	Experimental Group Mean Score	Control Group Mean Score
Brand attachment	3.2	3.0
Repeat purchase intent	3.7	3.5
Willingness to recommend	3.9	3.7

Table 9. Independent Samples T-Test (Experimental Vs. Control Group Post-Test Brand Awareness Scores) Using T-Test

Brand Awareness Dimension	t	df	p	Mean Difference
Unaided Brand Recall	10.46	198	.000	1.43
Aided Brand Recall	9.23	198	.000	1.39
Brand Recognition	12.55	198	.000	2.18

Interpretation: There are statistically significant differences between the experimental and control groups in all brand awareness dimensions after exposure to social media advertising because p-values are less than .05.

Table 10. Pre-Test Vs. Post-Test Brand Loyalty Analysis Using T-Test

Loyalty Dimension	t	df	p	Mean Difference
Brand attachment	5.33	99	.000	1.0
Repeat purchase intent	6.22	99	.000	1.2
Willingness to recommend	5.81	99	.000	1.1

Interpretation: The experimental groups demonstrated a statistically significant increase from pre-test to post-test across all brand loyalty measures after exposure to social media advertising.

Table 10. Relationship between Advertising and Social Media Association, One-way ANOVA for Analysis

Source	SS	df	MS	F	p
Between Groups	11.24	1	11.24	18.32	.000
Within Groups	120.36	198	.608		
Total	131.60	199			

Interpretation: Because the p-value is less than .05, it can be concluded that there is a difference between the experimental and control groups' brand association scores. It can be said that through social media ads, brand associations changed positively.

Findings

In the statistical analysis of the data obtained from this experimental study, significant effects of social media advertising were found on brand awareness, associations, perceived quality and loyalty.

Brand Awareness

There is no statistical difference in brand awareness between the experimental and control groups during the pre-testing. However, post-test unassisted memory-aided recall and recognition scores after the experimental were exposed to the social media advertising campaign were significantly higher from the control group at $p > 0.05$. This finding indicates that social media advertising has positively influenced brand recognition.

Brand Associations

Whereas both groups had moderately positive brand associations in pre-testing, significantly higher semantic differential scale ratings ($p < 0.05$) were reported and determined for the experimental group in the post-test compared to the control group. Similarly, the thematic analysis indicated how the experimental group associated the brand more with attributes such as "healthy", "natural", and "nutrition" following the exposure to the ad.

Perceived Quality

The perceived quality, safety, and durability of the brand were improved in the post-test among the experimental group compared with the control, $p < 0.05$. This finding means social media ads create positive judgments about brand quality.

Brand Loyalty

Specifically, there were significant increases in brand attachment, repeat purchase intent, and willingness to recommend the brand from pre-test to post-test for the experimental group after exposure to social media ads. The brand loyalty for the control group did not change significantly across the two measurements.

Discussion

The results of this experimental study offer valid empirical proof that advertising on social media positively impacts key metrics of core brand perception: awareness, associations, perceived quality, and loyalty.

Enhanced Brand Awareness and Associations

Compared to the control group, exposure to the social media campaign significantly heightened unaided and aided brand recall and recognition. These results confirm previous research where exposure to social media marketing activities increased brand awareness among young people (Bruhn et al., 2012; Schivinski & Dabrowski, 2016). Of particular note is this immediate brand recognition on social media, where portals are exposed to the complete content of diverse brands (De Vries et al., 2012). The strengthening of brand associations also aligns with earlier studies by Pham & Gammoh (2015) and Hutter et al. (2013), which have established that interactive social media communications of brands lead to more pronounced symbolic meanings and imagery of the brand.

Improved Perceptions of Quality

The fact that quality perceptions are higher for the experimental group again supports the similar effects observed for traditional advertising. As Keller (1993) theorised, communication cues shape inferences about product attributes. Social media's high reach and engagement appear to transmit quality cues effectively. It goes against the arguments of authors like Fournier & Avery (2011), who argued that a lack of control over user-generated content on social media dilutes quality perceptions.

Increased Brand Loyalty

Some elements, such as strong brand attachment and buying behaviour after social media advertising publicity, help reinforce contemporary findings linking exposure to social media marketing to brand loyalty (Rishi & Joshi, 2016; Hernandez-Ortega, 2018). Such a view banishes the notion that digital platforms have weakened loyalty. In this regard, integrated interactive and shareable ads for social media consumption give rise to value relating directly to brand relationships. However, there are some limitations. Thus, The results may differ in the case of established brands with prior perceptions in participants' minds. The short duration of the study also calls for caution in generalising its long-term loyalty impacts.

Practical Implications

These results, therefore, assist marketers by using social media for brand building, with particular attention to quality and awareness drives and associations. Resources must be spent developing engaging and viral social media advertising campaigns and periodic measurement of their brand impacts.

Theoretical Contributions

The study presents key theoretical contributions highlighting the validation of social media advertising on brand equity, theoretically argued earlier by Jung et al. (2021) and Kapoor et al. (2018). The experimental methodology presents real evidence of causality in the findings. These results can provide an enhanced version of brand equity and advertising theory models within a digital platform. Future studies can test the characteristic features of content, frequency, and platforms for social media advertising that will work best for brand outcomes. It is also recommended that more comparative studies be conducted to analyse the effects of traditional media. The ground for further empirical inquiries to advance knowledge on next-generation advertising is fertile.

Conclusion

The current experimental study offers a valuable addition to the knowledge of how social media advertising influences the dimensions of brand equity. In particular, the results show that social media advertising strongly increases brand awareness, associations, perceived quality, and consumer loyalty. These strong results confirm that social media sites are effective brand-building tools and weaken part of the previous scepticism. Marketers should exploit social media advertising with adequate spending in engaging formats like videos and longitudinal metrics. However, studies could always try to establish boundary conditions

such as optimal frequency and kinds of content for brand communication via social media. Comparative studies with traditional media would also give richer insights.

Additionally, the current research secures social network advertising's place within today's marketing mix for brand knowledge and brand equity enhancement. In either case, failure to effectively incorporate social media into the digital space will dilute awareness, image, and consumer relationships. When managed well, rich opportunities are afforded by social network advertising to strengthen brands effectively and efficiently by engaging networked audiences. Key highlights include the following:

- Social media advertising significantly positively affects brand awareness, associations, perceived quality and loyalty.
- Marketers should invest resources into creating and optimising social media advertising campaigns.
- Ongoing empirical research can provide nuanced guidelines to maximise returns.
- Theoretically and practically, social media advertising has proven efficacy for brand building in digital environments.

The experimental study, in its end, helps mark a very important milestone by establishing social media as a powerful channel for advertising. The contribution is both at the level of applied insights for marketing professionals and at the theoretical advancement of academic knowledge on branding. There lies a vast scope in further unravelling social media's profound implications for brands.

References

- Aaker, D. A. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. New York: The Free Press.
- Bruhn, M., Schoenmueller, V., & Schäfer, D. B. (2012). Are social media replacing traditional media in terms of brand equity creation? *Management Research Review*, 35(9), 770-790. <https://doi.org/10.1108/01409171211255948>
- De Vries, L., Gensler, S., & Leeflang, P. S. (2012). The popularity of brand posts on brand fan pages: An investigation of the effects of social media marketing. *Journal of Interactive Marketing*, 26(2), 83-91. <https://doi.org/10.1016/j.intmar.2012.01.003>
- Forbes. (2022). Social media advertising spend in the United States from 2022 to 2027. Retrieved from <https://www.forbes.com/>
- Fournier, S., & Avery, J. (2011). The uninvited brand. *Business Horizons*, 54(3), 193-207. <https://doi.org/10.1016/j.bushor.2011.01.001>
- Hutter, K., Hautz, J., Dennhardt, S., & Füller, J. (2013). The impact of user interactions in social media on brand awareness and purchase intention: The case of MINI on Facebook. *Journal of Product & Brand Management*, 22(5/6), 342-351. <https://doi.org/10.1108/JPBM-05-2013-0299>
- Jung, A., Nam, H., Lee, K. M., & Gupta, S. (2021). Social media marketing: A review and assessment of current and future research directions. *Journal of the Academy of Marketing Science*, 49(5), 1187-1207. <https://doi.org/10.1007/s11747-021-00787-0>
- Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2018). Advances in social media research: Past, present and future. *Information Systems Frontiers*, 20(3), 531-558. <https://doi.org/10.1007/s10796-017-9810-y>
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22. <https://doi.org/10.1177/002224299305700101>
- Kelly, L., Kerr, G., & Drennan, J. (2010). Avoidance of advertising in social networking sites: The teenage perspective. *Journal of Interactive Advertising*, 10(2), 16-27. <https://doi.org/10.1080/15252019.2010.10722168>
- Killian, G., & McManus, K. (2015). A marketing communications approach for the digital era: Managerial guidelines for social media integration. *Business Horizons*, 58(5), 539-549. <https://doi.org/10.1016/j.bushor.2015.05.006>
- Kumar, A., Bezawada, R., Rishika, R., Janakiraman, R., & Kannan, P. K. (2016). From social to sale: The effects of firm-generated content in social media on customer behavior. *Journal of Marketing*, 80(1), 7-25. <https://doi.org/10.1509/jm.14.0249>
- Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons*, 52(4), 357-365. <https://doi.org/10.1016/j.bushor.2009.03.002>
- Nafei, W. (2019). Organizational agility: The key to organizational success. *International Journal of Business and Management*, 11(5), 296-312. <https://doi.org/10.5539/ijbm.v11n5p296>

- Pham, M. T., & Gammoh, B. S. (2015). Characteristics of social media marketing strategy and customer-based brand equity outcomes: A conceptual model. *Journal of Internet Commerce*, 14(2), 321-348. <https://doi.org/10.1080/15332861.2015.1028258>
- Ranjbarian, B., Fathi, S., & Khodakarami, M. (2010). The application of Michael Porter's competitive strategies in electronic commerce. *International Journal of Electronic Commerce Studies*, 1(2), 199-206. <https://doi.org/10.7903/ijecs.107>
- Rishi, B., & Joshi, G. (2016). Consumer sentiments and popularity of brand posts on Facebook pages. *Atlantic Marketing Journal*, 5(1), 15-30. Retrieved from <https://digitalcommons.kennesaw.edu/amj/vol5/iss1/3>
- Schivinski, B., & Dabrowski, D. (2016). The effect of social media communication on consumer perceptions of brands. *Journal of Marketing Communications*, 22(2), 189-214. <https://doi.org/10.1080/13527266.2013.871323>
- Smith, A. N., Fischer, E., & Chen, Y. (2011). How does brand-related user-generated content differ across YouTube, Facebook, and Twitter? *Journal of Interactive Marketing*, 26(2), 102-113. <https://doi.org/10.1016/j.intmar.2011.09.001>
- Statista. (2022). Number of social media users worldwide. Retrieved from <https://www.statista.com/>.