

Original Article

Revolutionizing Consumer Engagement: Exploring AI-Powered Advertising in the Social Media Era with Special Reference to High-tech Ventures

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Abstract - Social media is becoming a preeminent platform for advertising organizations. However, most advertisers face enormous challenges in designing an advertisement that effectively involves online customers and encourages them to purchase the brand. Thus, the research objective is to find the effect of advertising messages and their impact on consumer purchases by adopting the SOR model approach on Generation "Y". The study will also evaluate the impact of AI enabled Advertising as a moderator, Personal Involvement, and consumer engagement as a mediator on the stimulus received through online ads. The stimulus-organism-response (SOR) framework has been extensively studied for the previous generations; however, the tool's ability to provide insight into how Generation Y respond to communications influenced by AI, customer engagement, and online ads has not been thoroughly explored. The study has used a prevalence study to analyze data from a particular sample. The study adopted a five-point Likert scale, and convenience sampling was adopted for collecting information from 528 respondents. The Amos-SEM modelling was adopted to examine the relationship of the advertising messages, AI-enabled content, specific significance to everyone, and an individual's involvement in the intention to purchase. The result of this study validates the hypothesis framed, i.e. there is a high impact between the stimuli- advertising message and behaviour- consumer engagement. The results showed how the communicated message through the ad advertising message impacts cognitive processing and superficial cues. It also accentuates how crucial the role played by social media is in fostering customer engagement. However, the results also support the idea that AI content might function as a moderator to influence both consumer engagement and advertising messages.

Keywords - Social media platform, Stimulus-Organism-Response model, Advertising message, Perceived personal relevance, Consumer engagement and Purchase intention.

1. Introduction

High-tech ventures have consistently used an array of social media channels to market their products, influence interactions with customers, and impact their brands' purchasing decisions (Rana, Meghna, 2022). Planning a successful and profitable social media advertising strategy is difficult, given the industry's extraordinarily competitive and ruthless nature. Consequently, companies worldwide have started to contemplate how they can utilize these channels, which could lead to better customer acquisition and profitable marketing partnerships (Lin and Kim, 2016; Sarmah, Gupta, & Dwivedi, 2018; Alalwan, Rana, Algharabat, & Tarhini, 2016). Ad spending in the advertising on social media market is anticipated to reach US\$1.3 billion in 2024, according to Statista's 2024 report. India's market for social media advertising is expected to expand by 6.37% between 2024 and 2029, reaching a US\$ billion market size in that year. This, in turn, poses the concern of whether such initiatives are feasible

from the standpoint of the technologically advanced business. Furthermore, companies always struggle to create these campaigns appealingly and successfully (Ali Abdallah Alalwan, 2018). Businesses are striving harder than ever to produce user-engaging content. They are doing this by applying various strategies to Advertisers' illustrations, reproducing written content, drawing viewers in and increasing their levels of involvement, be it shares, likes, or comments. Because of increased customer engagement, there is an increase in sales. (Manchanda et al., 2012). Advertisers are keen on increasing their online ads' engagement level since customer involvement is a crucial indicator of social media advertisement efficacy (Weiger et al., 2018). With the rising competition on social media platforms, however, advertisers now have more difficulty producing material that prompts higher levels of interaction and can impact consumers' intentions to purchase. However, only advertisers with creativity and innovation are those



whose advertisement effectively captures an audience's attention to attain the necessary results. In order to improve advertising efficiency, restructure, and modernize the conventional promotion process, advertisers are now implementing AI (Qin & Jiang, 2019). According to the researchers, artificial intelligence can restructure advertising aspects, including media selection and acquisition, performance assessment, copywriting, research on advertising and creation of brand loyalty (Liao, 2017). Furthermore, Jiang and Xin (2019) claim that AI can have a profound effect on an entirely novel set of actions in the process of advertising, such as consumer insight exploration, selection of platforms, commercials creation, and advertising impact assessment, by using consumer profile and algorithms, it may guide advertising initiatives such as the production of large-scale, customized advertisements.

The use of AI can help marketers improve their understanding of the purchasing choices of consumers. Online purchases differ from traditional purchases in that the decision-making process in the former is adaptable (Bucklin et al., 2002). The advent of AI-powered technological devices and their advancement have significantly impacted online purchasing (Gupta et al., 2004). AI-powered technology can improve the way online shoppers obtain the necessary data concerning the product or service that they want to purchase. Besides, AI also helps shoppers seek other alternatives, assess them, make purchases, etc. (Constaninides, 2004). Furthermore, AI assists consumers in acclimatizing their buying behaviours to novel, complex situations that involve decision-making and purchasing through diverse platforms (Karimi et al., 2015).

According to Kietzmann et al. (2018), artificial intelligence has changed how advertisers observe and direct their target consumers. Employing AI in online commercials is a key requirement in the context of social networking venues. This aids marketers in developing ethically compliant products while also fulfilling the demands of digital customers (Qin & Jiang, 2019). Further, artificial intelligence has influenced each process stage, leading to tremendous transformation in the technology sector. A study by Lee et al. (2018) reveals that personal preferences and consumer engagement depend on the marketing pitch, which accounts for the content of the advertisement, its length, kind, tone, and attractiveness.

Insights regarding the application of S-O-R and consumer interpretation of advertising messages have been presented by Dwivedi et al. (2020). The research has found a gap from the previous literature that fails to address how the S-O-R theory would impact consumer engagement in social media and can increase consumer engagement and purchase levels. Thus, the study has found a research gap with the following research question: Does the advertising message significantly impact consumer engagement and intention to purchase.? Secondly,

can AI content as a moderator impact the level of consumer engagement and substantially affect the purchase intention of consumers? Does the level of personal relevance and consumer engagement as a mediator will increase consumer purchase intention? This study was carried out since no significant study exists to answer the research question.

The study has developed a conceptual framework to analyze the effect of advertising messages on consumer engagement and purchase intention. Secondly, this study aims to understand whether the moderating effect of artificial intelligence content impacts advertising messages on consumer engagement and consumer purchase intention. Thirdly, the study also aims to determine whether perceived relevance significantly influences consumer engagement. The theory comprehends the existence of connectedness and variations among the variables by drawing on viewpoints from the SOR framework.

2. Review of Literature

2.1. Advertising Message

Advertising significantly influences consumer behaviour by shaping perceptions, attitudes, and purchase intentions. Marketers utilize advertising to mold how consumers view a product or brand, aiming to create a positive image and establish a favourable position in consumers' minds (Aaker, 2021). Additionally, advertising can impact consumer attitudes through persuasive messaging, emotional appeals, and social validation (Cialdini, 2020). According to Rai (2013), exposure to advertisements alters consumers' attitudes toward products. Regarding consumer purchasing decisions, Rai asserts that advertising significantly influences customers' choices of specific brands. Niazi et al. (2012) their study found that advertising serves as a potent tool to attract individuals and positively shift their attitudes toward products. Thus, advertising plays a pivotal role in the modern era by influencing societal behaviour towards products. It empowers consumers to access information and make proper purchase decisions (Niazi et al., 2012).

2.2. AI Generated Content Ad

Artificial intelligence modifies and enhances the conventional advertising process, leading to increased advertising effectiveness (Qin & Jiang, 2019). AI-based technologies are capable of restructuring advertisement-related operations such as media planning and buying, assessment of results, copywriting, advertising research, planning, and development (Liao, 2017). Studies indicate that improved advertisement efficiency is attributed to the adoption of AI. Artificial intelligence (AI) has altered how advertisers see and direct their target audience (Kietzmann. et al., 2018). Employing AI in advertising is viewed as a key requirement in e-commerce that helps advertisers and e-commerce platforms develop ethically viable merchandise and fulfill the demands of online consumers (Qin and Jiang, 2019). The rapid evolution in AI technology has significantly

impacted advertising at various levels, beginning with creation and implementation (Lee & Cho, 2019) and extending to design, process, and execution (Qin & Jiang, 2019). Besides, AI technology influences programmatic advertising and the various phases of digital marketing (Chen, 2019).

2.3. Perceived Personal Relevance

According to Celsi and Olson (1988), it's a process that evaluates how an individual consumer perceives the brand's relevance in achieving their goals. Earlier studies point out that customers are more likely to take notice of products or services with greater personal value attached to them (Zhu & Chang, 2016). Thus, recommendations for personalized products from internet retailers have been observed to be more beneficial to customers in their product selection in comparison with recommendations from experts or other customers (Senecal & Nantel, 2004). Customized advertisements have enhanced customer attention and self-awareness by appealing to individuals' unique demands and experiences, thus increasing customer usage intentions (Zhu & Chang, 2016).

2.4. Consumer Engagement

Hollebeek. et al. (2014) noted that information consumers seek to learn about products reflects their degree of involvement. On the other hand, reactions (R) such as approving or remarking have been used to describe engagement in the context of the SOR paradigm (Carlson et al., 2018). Engagement can be defined in different ways. While greater emphasis is placed on the motivations behind the action in certain approaches, co-creating content by working with businesses has been the emphasis of other approaches (Barger. et al., 2016). According to Moran. et al.

(2019), clicks, likes, shares, and comments have been frequently used to assess social media involvement.

2.5. Consumer Purchase Intention (CPI)

According to Wu et al. (2011), the likelihood that consumers are interested in purchasing a particular commodity or product in the future is measured by Consumer Purchase Intention. A positive association between the increasing trend in consumer purchase intention and a better chance of purchasing the brand has been demonstrated in earlier research by Martines et al. (2019).

Thus, consumers with positive purchase intentions exhibit a favourable engagement with brands, which in turn may promote purchasing. Zubcsek et al. (2017), in one of their recent studies, argued that the mobility patterns of consumers are characteristic of their preferences for products. This needs to be utilized by advertisers while crafting their commercial offers (Martines et al., 2019). Therefore, content in advertising should consider these factors to be embraced by prospective customers and leave a lasting impression on them.

3. Conceptual Framework

The study has adopted a Stimuli-Organism-Response (SOR) framework to analyze consumer engagement behaviour (Mehrabian & Russell, 1974). It examines how cognition and emotions generate stimuli and how they create intention, subsequently triggering an engagement response from consumers on social media platforms. The SOR framework has been widely employed by academicians to forecast customers' buying behaviour in commercial and digital environments (Chopdar & Balakrishnan, 2020) and also to examine the engaging level of consumer patterns on social media platforms (Blasco Arcas et al., 2016).

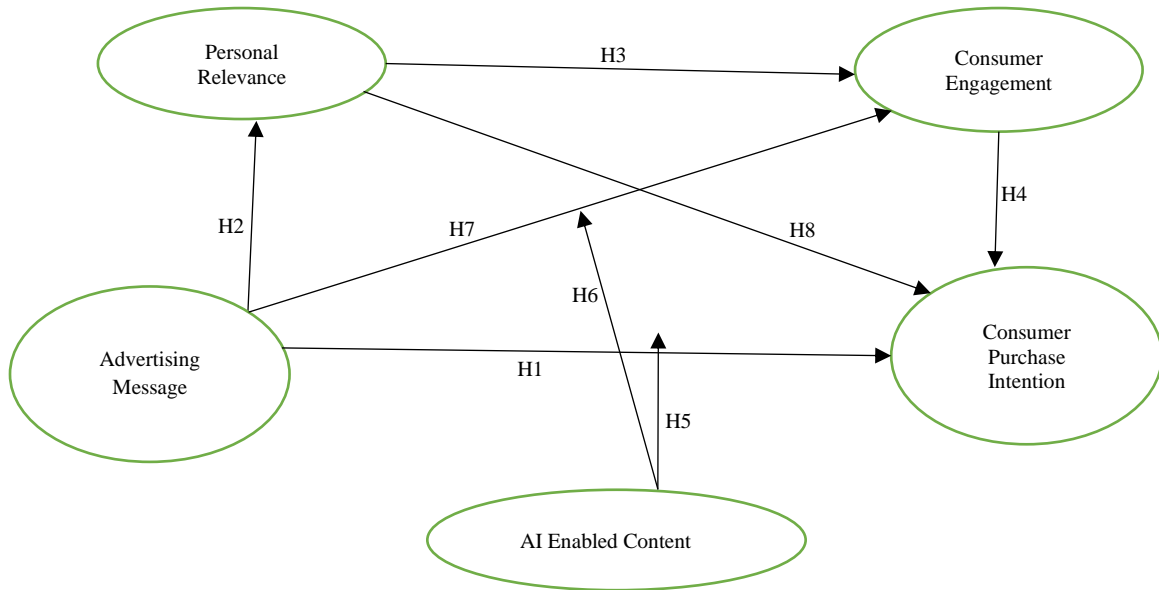


Fig. 1 Conceptual framework of serial mediation -moderation model advertising message, perceived personal relevance and AI-enabled advertising services on consumer engagement and purchase intention

3.1. Advertising Message and Consumer Purchase Intention

Advertisers use a variety of strategies to sway consumers' buying decisions through persuasive marketing messaging. Furthermore, they frequently utilize celebrities in their marketing campaigns to promote what they sell (Alalwan, 2018). As a result, Vargas-Bianchi and Mensa (2020) observed that advertising is an important factor in contemporary culture, acting as an instrument to influence public perceptions towards commodities. Commercials help consumers make judgements about what to buy by offering information. Individual differences in behaviour, psychology, and emotions significantly impact effective decision-making (Wirtz. et al.,2017). The degree of awareness of a brand can be used to forecast consumers' purchase intentions (Alalwan,2018). In conclusion, an unambiguous link exists between customer purchase intention and advertising. Customers' inclinations to purchase are probably going to increase as promotions increase. Thus, the following hypothesis is developed.

H1: Advertising Messages significantly increase consumer purchase intention on social media platforms.

3.2. Advertising Message and Personal Relevance

Individual value has been found to have moderating effects on attitude in addition to direct effects such as reasoning power, Perceived personal relevance, and repetition on attitude transformation. High degrees of individual relevancy changed attitude, whereas low levels had the reverse impact, as Liberman and Chaiken (1996) demonstrated. Repetition of the message improved attitude change in outstanding, compelling arguments, and there was no change in low-quality, weak arguments. On the other hand, it was discovered that attitude change was reduced with low relevant, compelling evidence and negative (against intended) with high relevant weak justifications. The value of individual relevance in online advertising is further enhanced by the increased control from operating in an online setting (Rayport & Jaworski 2003). This is because businesses can control the internet space to produce disruptions like "pop-up" or "slide-in" ads. Many other types of mediums, in contrast to the internet, can only be used in a structured manner. The media cannot easily divert or interrupt a reader when they are reading a newspaper or magazine. Therefore, Online advertising messages viewed as less personally relevant will function more as disruptions than as highly significant products.

H2: Advertising messages have a significant effect on personal relevance.

3.3. Personal Relevance and Consumer Engagement

According to Celsi et al. (1988), personal relevance is a crucial aspect of involvement and stems from consumers' previous interactions and recollected information. It is considered an "intrinsic" source of relevance. Previous studies indicate that views regarding advertisements and customer

purchase intentions are primarily (Abdallah, 2018) and deterministically influenced by personal relevance (Chang, 2016). According to Mittal and Lee (1989), involvement is the desire to achieve a particular objective. They emphasized the importance of comprehending consumer behaviour and balancing the effects of decisions made on products and brands, including word-of-mouth and persuasive messaging. Using their past experiences and knowledge, consumers today carefully consider an advertisement's message before deciding where and how to react to it (e.g., by leaving comments, loving it, or not). In other words, customers who find personal involvement are more likely to take the central route and are more likely to be highly motivated and elaborate.

H3: Personal Relevance has a positive significant impact on consumer engagement.

3.4. Consumer Engagement and Consumer Purchase Intention

Consumer engagement is the term used to describe customer actions directed toward certain companies or brands with purposes other than just making purchases. Consumer engagement on social media platforms has increasingly attracted more academicians and practitioners in recent years. Many studies have indicated that customer social media contacts can result from good brand assessments and purchase intentions. Purchase intention is positively impacted both directly and indirectly by customer interaction. EWOM's involvement influences consumers' purchase intentions. Thus, a thorough analysis of how consumer participation affects purchase intention shall be conducted.

H4: Consumer Engagement has a positive significant impact on consumer purchase intention.

3.5. Mediation Effect

3.5.1. Personal Relevance on Advertising Message Type and Consumer Purchase Intention

Today, marketers and advertisers can effectively deliver advertising messages that are more personalized and content that can align with consumer preferences. Numerous researchers emphasizing the internet, including Zhu. et al. (2016), have shown how crucial it is for consumers to view advertising content as relevant and tailored to their needs and preferences. According to Pechmann et al. (1990), consumers are more likely to engage with advertising when they perceive it as relevant to their personal needs. Zhu et al. (2016) presented empirical evidence to show how customers' intentions to use a product continuously are influenced by perceived relevance and the mediation function of a sense of self. Therefore, one could argue that consumers find social media ads relevant to their interests and aspirations.

H7: Personal relevance significantly mediates the relationship between advertising messages and consumer purchase intention (CPI).

3.5.2. Consumer Engagement in Advertising Message and Consumer Purchase Intention

Consumer engagement refers to a brand notion or medium that the consumer has interacted with and finds appealing Cumming (2007). The belief that social media is an essential instrument for fostering customer interaction is fuelled by the growing widespread use of these platforms (Pütter, 2017). According to Barhemmati et al. (2015), advertisers can achieve this by creating emotional bonds through relationship marketing. According to Mirabi et al. (2015), decision-making and purchase intention are interconnected when consumers are willing to purchase brands. As per one of the researcher, positive purchase intention occurs when there is a positive relationship between the marketer’s product and consumers.

H8: There is significant mediating impact of consumer engagement (CE) between relationship between advertising message and consumer purchase intention (CPI).

3.5.3. AI-generated Content on Advertising Messages, Consumer Engagement and Consumer Purchase Interaction

According to Libai et al. (2020), consumer experience can be enhanced at the consumer purchase decision-marketing process. Customer journeys and relationships can be transformed through artificial intelligence (Libai et al., 2020). AI-related technologies AI solutions can potentially streamline the payment procedure during the purchasing

process. AI enables servers to provide customers with an exceptional level of service, which increases customer engagement. Customers are more likely to connect with a brand when they have emotions and social and mental positive experiences (Prentice et al., 2020). These elements strengthen the connection between customer loyalty and engagement.

H5: AI-generated content significantly moderates the association between advertising message and consumer purchase intention (CPI)

H6: The moderating effect of AI-generated content on the association between advertising message and consumer engagement (CPI).

4. Research Methodology

4.1. Population and Sampling

The current study employed a quantitative method, testing its theoretical framework and assumptions with an online questionnaire. Using an online questionnaire saves time and allows respondents to participate conveniently. Extracting standard data and subjecting it to thorough quantitative analysis makes it easier to analyze (Sekaran et al., 2016). The unit of analysis includes Generation Y, which utilizes social platforms. According to a Forbes article from 2024, millennials will account for one-third of all social media shopping spending worldwide, with Gen Z and Gen X coming in second and third, respectively, at 29% and 28%.

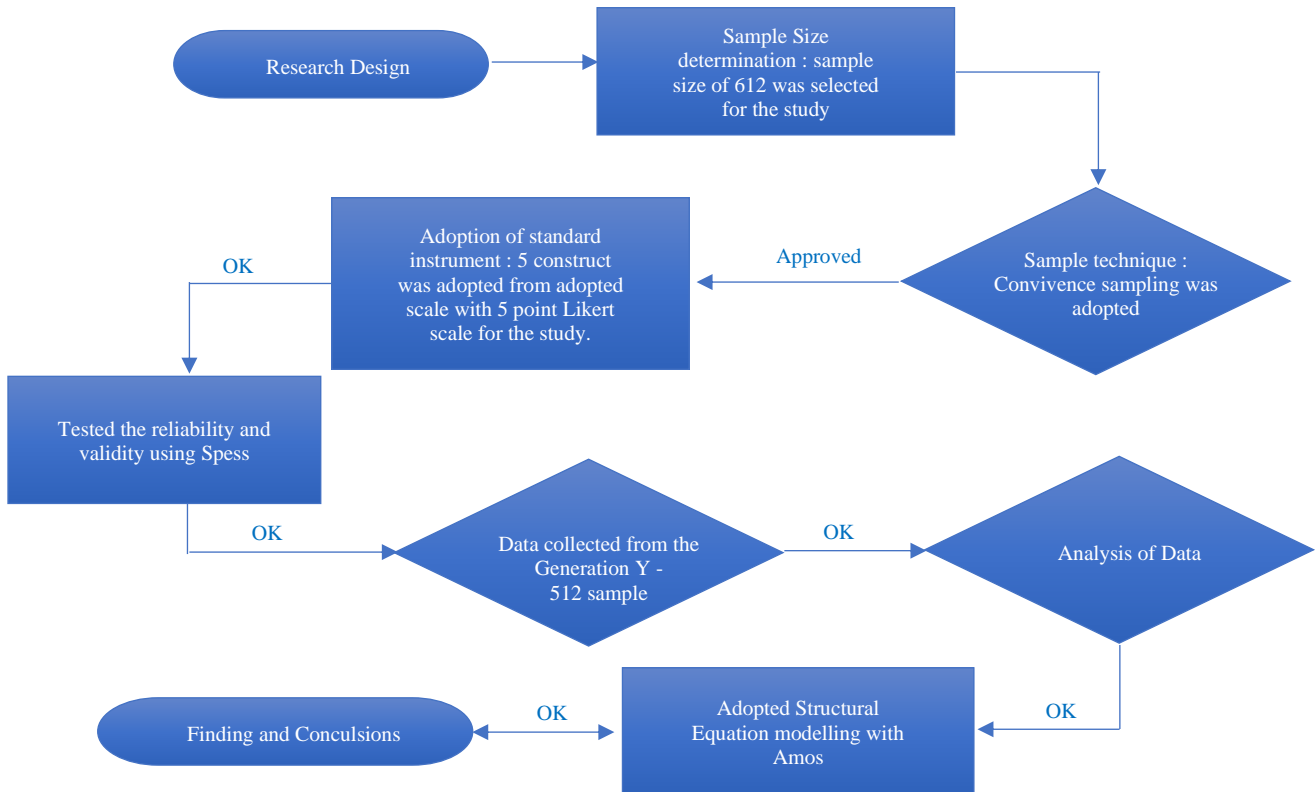


Fig. 2 Process of selection of research study

Generation Y's wants and behaviors may differ greatly from those of earlier generations, according to demographic models (Lissitsa & Kol, 2016). According to Chuah et al. (2017), these variations can be linked to the common experiences of Generation Y, technology developments, and their adjustment to environmental and cultural shifts. A screening questionnaire based on the typical amount of time dedicated to social media platforms was employed to ensure proper data collection. Due to the large population size, the study adopted a non-probability sampling method to decide the type of samples (Etikan et al., 2015).

To determine the minimal number of SEM samples, multiply the total amount of variables utilized in the study design by 5-10 times. The survey aimed to achieve four objectives. The study aims to explore Generation Y perception towards advertising messages and its effect on consumer engagement and purchase intention (CPI). Secondly, the survey aimed to explore whether Generation Y, whose engagement level increases and believes in advertising messages, exhibits higher levels of call-for-action Purchase Intention in Chennai.

Thirdly, the study employed convenient sampling as a method of selecting participants, as it is a common approach in studies related to social media and advertising messages. The questionnaire started with a summary of the study and an assurance to participants that their answers would be kept completely private and used only for that purpose. It was completely voluntary for participants to participate in the survey, and they could opt out at any moment. In order to guarantee comprehensive data, all survey items must be answered by the participants. Data collection took place from September 2023 to January 2024.

4.2. Measurement of Variables

This study measured how advertising message and their effectiveness on social media platforms was improved by adopting artificial intelligence and its influence on the engagement level of Generation Y. A conceptual model was established to study the relationships between five variables in social media platforms to achieve this. The five variables are Advertising message, Artificial intelligence Content (moderator), Perceived personal relevance (mediator), Consumer Engagement (mediator) and Purchase Intention.

The advertising message type is an independent variable that measures millennials' engagement level. It is measured to know whether the central route impacts the level of engagement will be high or if the Peripheral route has a high engagement level. The scale and items for the advertising message were adopted from Cheung & Thadani (2012), Wang and Strong (1996), and Shasha Teng et al. (2017). The items for the moderator of AI-enabled content were taken from Dana A. Al Qudah et al. in 2020. The consumer interaction was taken from Henkens, Bieke, et al. (2020). The products used

as a mediator for customer involvement were taken from (Mani & Chouk, 2018; Islam et al., 2017). The four-item measurements utilized in this study were derived from Xiaodong Qiu and Jiawang Yin (2021). All the measurement scales have been adopted from the previous research. A pilot investigation was planned to assess the preservation of psychometric features, evaluate the applicability of online ads, and evaluate survey instrument validity. To ensure there is sufficient validity and reliability prior to completing the items in the questionnaire, the investigators conducted an initial experiment with 50 young adults with a scale of 5-point Likert scale.

According to most of those young individuals, the questionnaire's informational content was reasonable, and the language employed was straightforward. As required by Nunnally (1978), all factors obtained an appropriate value of 0.70 of Cronbach's alpha. It was observed that out of 750 online surveys that were issued, 612 responses were returned completed. Out of the 612 sets of online questionnaires collected, 528 valid replies were retrieved after cases where participants gave incomplete information, were excluded.

5. Analysis of Results

5.1. Demographical Profiles and Characteristics

A descriptive analysis was undertaken to explore respondents' demographic characteristics, social media usage and their immediate response to advertisements posted on social media platforms. Their sociodemographic characteristics suggested that the sample had enough diversity and was probably a representative sample of customers. The final findings from the experiment revealed that most individuals were in the age group of 20-25 (N=203, 38.4%).

There with gender distribution of respondents in the experiment was Male (N=381, 60.2%), and most of the respondents held an academic Post Graduate (N=267, 50.60%). Moreover, the majority of the respondents are employed (N=310, 58.7%). The finding of the analysis also revealed that the majority of millennials spent their time on social media platforms (N=302, 42.5%). Most respondents use social media to get information about the product or services (N=201, 28.3%). It was also found that the majority of the respondents are more engaged every day on social media platforms (N=298, 41.9%). Moreover, most respondents prefer to purchase once a week (N=240, 33.8%). Finally, the majority of respondents view the advertisements that are posted on social media platforms (N=310, 43.6%).

5.2. Reliability and Viability

The study assessed all the constructs and found that all constructs had adequate internal consistency (Nunnally, 1978). AI-enabled content had the lowest CA value (0.831), while the highest value (0.973) was for the advertising message. Perceived personal relevance came in second with a value of (.910).

5.3. Data Analysis

The data was analyzed using AMOS, version 29, and the Statistical Software of Social Science (IBM SPSS). A confirmatory test for the operationalization of variables within the measurement model was carried out, and model fit (Hair et al.,2010). Furthermore, SEM analysis has the benefit of being more frugal than other methods like regression and utilizing both measurement and a structural model to test each hypothesis simultaneously.

5.3.1. Measurement Model

The conceptual framework paths were examined using structural equation modelling. For the analysis of non-scientific constructs that are difficult to quantify explicitly, structural equation modelling is advised. According to Steenkamp and Baumgartner (2000), researchers stated that certain constructs “can only be assessed through observable

indicators or measures that vary in the degree of observational significance and validity.” Following a CFA analysis, the structural framework was put to the test. We evaluated measurement model validity in the CFA by speculating on a four-factor model. Numerous studies that were built were taken into consideration as individual elements in the five-factor model that was postulated. The fit values were the GFI, AIC, RMSEA, and CFI, as well as the Chi-square ratio we employed in the CFA to evaluate the model fit with their intended value (Hair et al., 2009). The hypothesized four-factor model fits the data well (Cmin-192.32, Df-.80, PcmIn/Df-2.404, GFI-.955, CFI-.982, RMSEA-0.52 and AIC-272.322, NFI-.969) the model is acceptable to fit (Marsh & Hocevar, 1985, Wheaton et al., 1977, Fan et al., 1999, Hu & Bentler, 1999, Akaike, 1987) compared with single factor model fit (Cmin-1663.690, Df-.89, PcmIn/Df-18.691, GFI-.684, CFI-.741, RMSEA-.183 and AIC-1725.690, NFI-.731) as shown in table 1.

Table 1. Five-factor measurement model

Model	χ^2	DF	χ^2/df	GFI	CFI	RMSEA	AIC	RMR	NFI
Hypothesized four-factor Model	192.32	80	2.404	.955	.982	0.52	272.322	.012	.969
Three-Factor Model	795.905	84	9.475	.835	.883	.127	867.98	.116	.872
Two-Factor Model	1196.165	87	13.749	.765	.818	.156	1262.165	.118	.807
Single Factor Model	1663.690	89	18.693	.684	.741	.183	1725.690	.120	.731

Note(S): All the factors are considered individual factors. Advertising messages and artificial intelligence content are combined into a single factor, and all other factors are individual factors. Advertising messages and Perceived personal relevance are combined into a single factor along with artificial intelligence content, and all other factors are individual factors. Advertising messages, artificial intelligence content, perceived personal relevance, and consumer engagement are combined into one factor, and all other factors are considered individual factors. Similarly, advertising messages, artificial intelligence, perceived personal relevance, consumer engagement and purchase intention are combined into a single factor.

5.3.2. Structural Equation Model

SEM is an approach to statistics that makes it possible to investigate a number of relationships between latent and observable variables (Hoyle, 1995). In general, the SEM method makes it possible to run multiple regression analyses on components that stand in for relevant constructs. It additionally permits the incorporation of both observable and latent variables into the study, hence augmenting the model’s capacity to discern correlations between variables (Hoyle, 1995).

5.3.3. Testing of Hypothesis

Serial Mediation Effect

The Models were evaluated with various levels of complexity (number of latent components) (Kline, 2010). The

study applied Hayes’s (2013) and (2018) analytical approaches to examine the association between advertising messages and customer purchase intention (CPI), both directly and indirectly. The study has also adopted bootstrapping, recognized as one of the most accurate methods for examining the mediating effects of all the constructs (Zhao. et al., 2010) and for indirect effects followed by Preacher and Hayes (2008). To generate the beta, corresponding t values and R2 were required to evaluate the structural model, so a bootstrapping procedure with 5000 resamples was conducted (Hair et al., 2016). The results suggested that there is a serial mediation effect and the structural model had an acceptable fit of (X2 =158.268; df= 48; P <.001; GFI=.953; RMSEA=.066; CFI=.980; NFI=.972; IFI =.980). The results also show that the indirect as well as direct effects both are significant. The finding states that partial mediation also exists along with the serial mediation test. Further results found that the association of advertising messages on consumer purchase intention (CPI) has been positively significant at a 95% confidence level ($\beta =.012$, SE=0.41, T-value=2.990; P<0.05); thus, H1 is accepted. The study’s finding states that the indirect impact of personal relevance between advertising messages and Consumer purchase intention has a positive significant association at 95% confidence level ($\beta =0.60$; P <.005), i.e. H2 and H7 are supported. The finding reveals that the mediation effect of consumer engagement on advertising message and purchase intention has a positive significant association at 95% confidence level ($\beta= 0.159$; p<.005), i.e. H4 and H8 are supported.

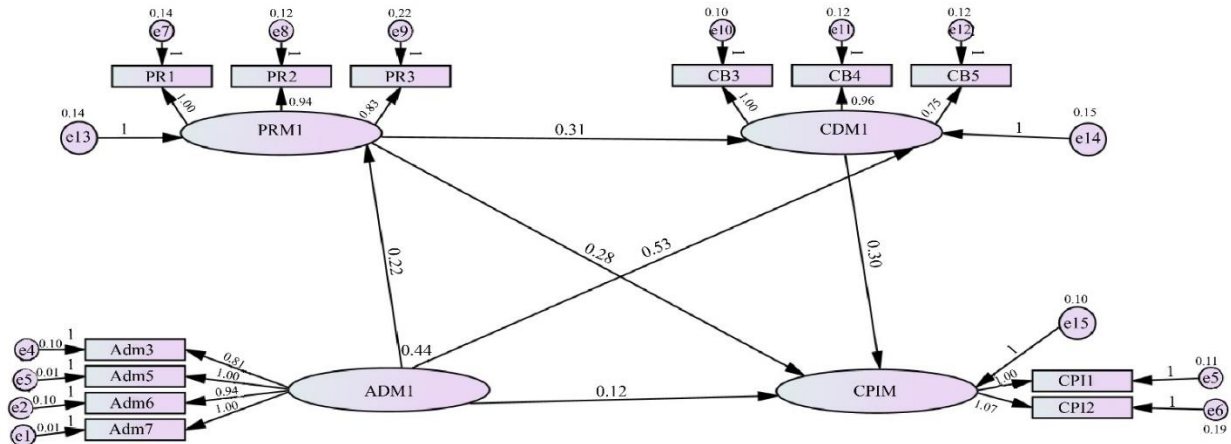


Fig. 3 Serial mediation and its impact on perceived personal relevance and consumer engagement on advertising message and consumer purchase intention

Table 2. Total, direct, and indirect effects

Variables	Effect	SE	95% CI
ADM → CPI (Total Effect)	.364	0.001	.264, .472
ADM → CPI (Direct Effect)	.124	0.41	0.47, .276
ADM → PR → CPI	0.60	0.27	0.21, .133
ADM → CDM → CPI	0.159	0.63	0.52, .297
ADM → PR → CDM → CPI	0.20	0.13	0.005, 0.58
Total Indirect Effect	0.24	0.77	0.107, 0.410

Hence, personal relevance and consumer engagement partially mediate the association between advertising messages and consumer purchase intention. The mediation analysis summary is presented in Table 2. Additionally, the findings revealed that there is an indirect association among advertising message, personal relevance, consumer engagement, as well as consumer purchase intention, which had a positive significant effect ($\beta = .352$; $P < .005$) at a 95% confidence level, supporting hypothesis H4. Thus, based on the evaluation, we may infer that customer purchase intention is directly impacted by advertising messages. The mediation findings indicate that consumer engagement and Perceived personal relevance are serially mediated. When compared the indirect effects of Perceived personal relevance and consumer engagement and their effects on advertising messages with consumer purchase intention. Perceived personal relevance has a highly significant effect on advertising messages with consumer engagement ($\beta = .559$; $P < .005$). Thus, it can be summarised that when perceived personal relevance is high, consumer engagement towards purchasing the product increases.

5.3.4. Moderation Effect

Artificial Intelligence Ad Content Moderating Effect on Advertising Message and Consumer Purchase Intention

This study also examines the moderating impact of artificial intelligence content on advertising messaging and consumer engagement. The idea was tested statistically, and the results showed that artificial intelligence contents modify

the association between advertising messages and customer buying intention. It's found that their negative relationship of moderating effect on advertising and purchase intention. However, this negative relationship is mitigated at high levels of artificial intelligence content versus low levels of artificial intelligence content ($\beta = -.032$; $P < .005$). It can be summarised that when the advertising message is delivered with low artificial intelligence, there will be high consumer purchase intention. When the advertising message is delivered through high artificial intelligence, there will be low consumer purchase intention.

Artificial Intelligence Ad Content Moderating Effect on Advertising Message and Consumer Engagement

The study has also examined the inclusion of artificial intelligence content and its influence on advertising messages and consumer engagement. The results of the hypothesis have confirmed that artificial intelligence content enhances the association of advertising messages with consumer engagement. Figure 5 presents that the positive relationship between advertising messages is high with consumer engagement when the influence of artificial intelligence content and advertising messages is low on consumer engagement when artificial intelligence is high ($\beta = 0.245$; $P < .005$). It can be summarised that when the advertising message is delivered with low artificial intelligence, there will be high consumer engagement. When the advertising message is delivered through high artificial intelligence, there will be low consumer engagement.

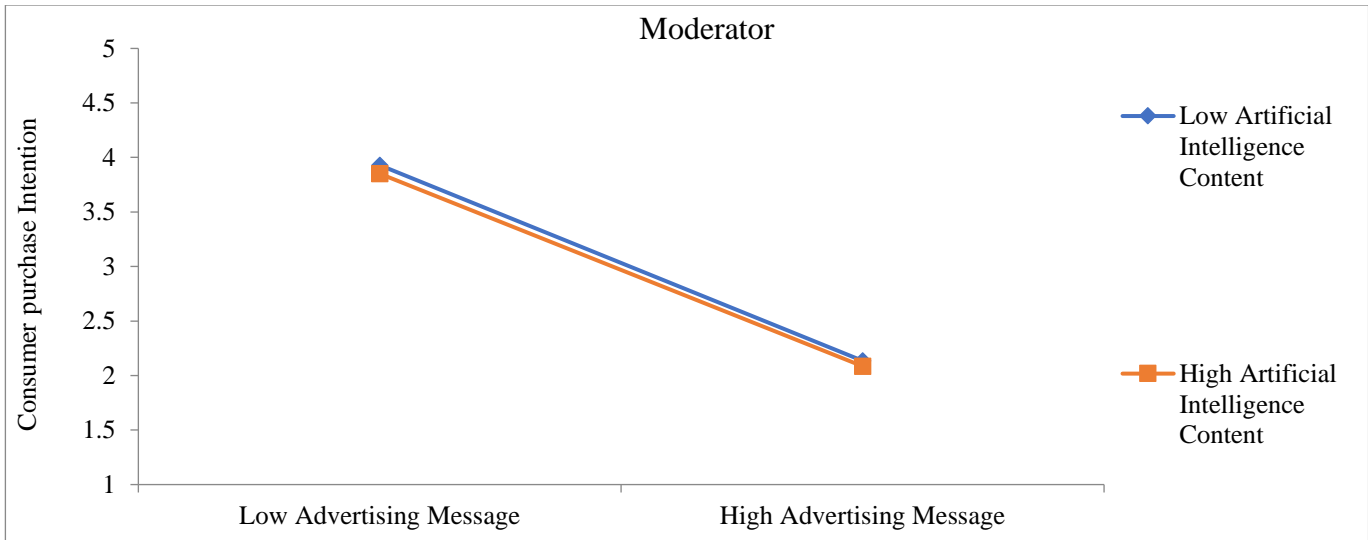


Fig. 4 Artificial intelligence ad content moderating effect on advertising message and consumer purchase intention

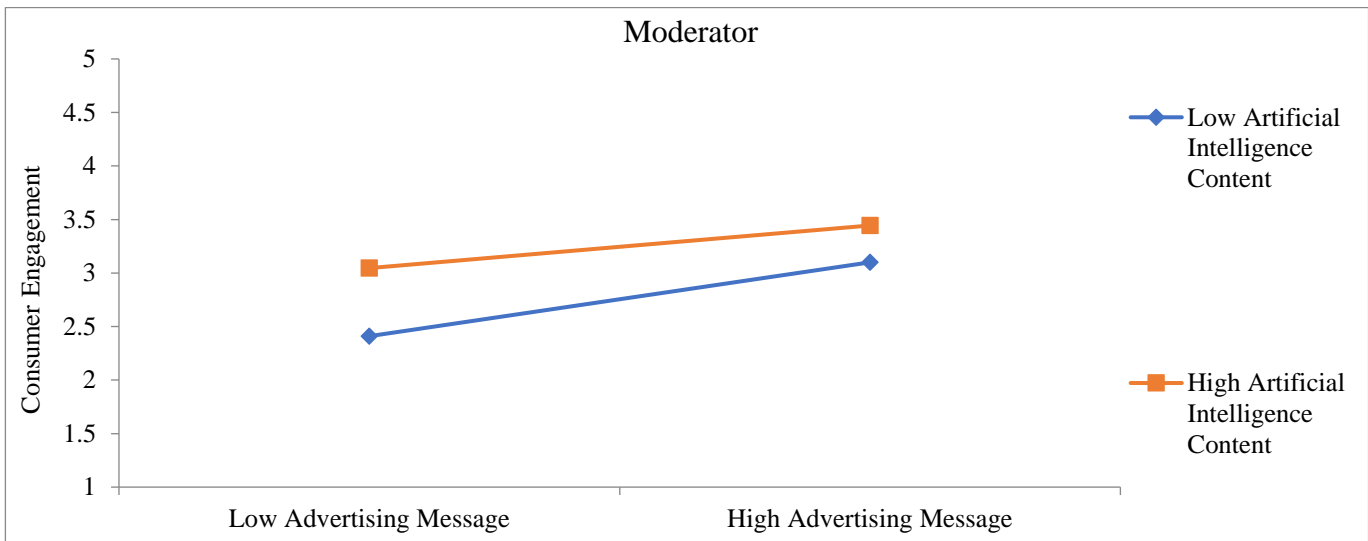


Fig. 5 Artificial intelligence ad content moderating effect on advertising message and consumer engagement

6. Discussions

This study investigates the impact of advertising messaging on Generation Y purchase intention using the S-O-R model (Petty & Cacioppo, 1986). It suggests a paradigm that investigates the mediating functions of consumer involvement and Perceived personal relevance. Additionally, the study investigates how artificial intelligence content might moderate this link. This study aims to resolve the contradictory results in the literature about which advertising messages encourage interaction from consumers (Tafesse & Wien, 2018). Through the mediating impacts of relevance and engagement, the present research aims to explain the influence of advertising messages upon purchase intention, given the limited attention on social media behaviours in understanding consumer-brand connections, particularly for social media advertising. Advertising moves beyond simple information delivery to customer engagement (Fraccastoro et al., 2021). Consumers

crave social media ads that grab attention, evoke emotions, and involve them with the brand (Willemsen et al., 2018). Successful brands create platforms for customer feedback and encourage user-generated content (Chwialkowska, 2019). Our findings support a positive relationship between advertising messages and purchase intention (H1 confirmed). Effective social media messaging considers factors that resonate with consumers on these platforms (Shareef et al., 2017; Dwivedi et al., 2017). Investigations of consumer engagement in social media advertising have witnessed an increasing trend. Nevertheless, it has been marred by several inconsistencies (Dolan et al., 2019; Rosado-Pinto & Loureiro, 2020). In this context, the present study investigates the mediation effect played by consumer engagement between advertising messages and purchasing intention (H4). The finding reveals a positive association between engagement and purchase intention (Toor et al., 2017). This research validates that

purchase intention and consumer engagement are positively correlated (H6). Agreeing with previous reports (Yang & He, 2011), the findings of the present suggest an increased likelihood of making purchases by engaged consumers. Thus, customer loyalty fostered by social media engagement (Toor et al., 2017) translates into augmented purchase intent and, in turn, positive brand promotion by loyal customers.

The study also investigates the possible moderating effect of AI-powered content on social media advertising (H5 & H6). The finding specifies a positive association between purchase intention (CPI) and advertising messaging, which is significantly affected by AI content. This aligns with the increasing importance of personalization and real-time contextualization in advertising in the era of AI (Chen et al., 2019). AI-generated content provides customers with improved knowledge of the product or service of their interest and thus helps build customer trust, thereby encouraging purchase decisions.

6.1. Theoretical Implication

Extensive studies have delved into consumer perception of advertising. These studies have shown that how consumers feel about ads can greatly impact their opinions on different brands and, ultimately, how it influences their level of engagement and decision-making process. Gregory et al. (2013) state that they have investigated the effect of advertising messages on consumer engagement through the ELM model, but few have considered the role of advertising messages, personal relevance, and marketplace characteristics on consumer behaviour. This study addresses gaps identified by Chen et al. (2016) and Msallati (2021) by examining advertising messages and their impact on purchase intention, with personal relevance and consumer engagement as mediators. It also explores how artificial intelligence moderates this relationship.

Advertising messages with customers' intention to purchase is not well studied in the marketing literature when it comes to the mediating role that Perceived personal relevance plays. According to Rosado-Pinto and Loureiro (2020), involvement is a prerequisite for engagement, which in turn influences customer engagement indirectly. Though participation as a moderator has been the subject of numerous research (Limbu et al., 2012), little emphasis has been paid to involvement's function as a mediator between purchase intention and advertising messages. The results demonstrate that advertising messaging has a big influence on involvement. The study found that involvement functions as a mediator, meaning that advertising messages affect consumer engagement and buy intention by influencing Perceived personal relevance (involvement).

The findings revealed that advertising messages delivered through social media significantly impact consumer engagement (CB) and consumer purchase intention (PI). The

research indicates advertisers need to focus on different phases of the decision-making of consumers. The finding from the research has found that millennials are more active on social media and confirmed that has more optimistic behaviour. According to Chandra et al. (2012) found that individuals who are frequently active on social media tend to have a positive impact towards advertising messages and have a significant impact on their decision-making.

The study's findings revealed that engaged consumers remain committed to the brand, even after negative experiences, due to their emotional attachment, leading to enhanced purchase behaviour and customer loyalty. Anam and Faiz (2016) also found that organizational efforts to engage consumers can increase consumer delight and loyalty. The study additionally examined to determine if artificial intelligence as a moderator influences consumer engagement and purchase intention (Akram et al., 2023; Bilal et al., 2023). This has made social media an essential platform for customer connection and engagement. According to Torres et al. (2019), using artificial intelligence in advertising can enhance consumer engagement in social media platforms to attract more users.

6.2. Managerial Implication

The present study offers marketers valuable insights for creating effective strategies for use in social media advertising. Leveraging the power of AI, high-tech ventures can develop advertisement content that prompts cognitive thinking among consumers, thereby increasing consumer engagement. Such advertising messages need to provide complete product features, including their benefits and cost, to efficiently engage consumers. The overall findings of the study suggest the need for a strategic focus on consumer engagement by high-tech ventures in order to boost purchase intentions. Further, the study recommends improving ventures' social media marketing communications to reap maximum benefits and offer additional customer support through social media. The finding of this study reveals that perceived relevance is a mediator between advertising messages and consumer engagement. High-tech ventures should develop advertising strategies that prioritize consumer involvement levels by employing cognitive appeals to intensify engagement through perceived personal relevance. Barreto and Ramalho (2019) noted that higher involvement with informative content generates higher engagement at a high level of involvement. Predicting customer behaviour and optimizing interactions to boost customer engagement and thereby enhance sales can be made possible with AI-enabled social media advertisements. High-tech startups should prioritize adopting artificial intelligence content to enhance consumer intention and preference (Dwivedi et al., 2019). This study further recommends employing AI-driven advertisement messages by high-tech firms to improve consumer awareness and boost purchases on social media platforms. The results of this study reveal that consumers are

more prone to make purchases when they interact with AI-enabled content, as it simplifies their purchase decisions. Thus, it is evident that there is a need to utilize AI-based technology in advertising campaigns by high-tech ventures to gratify customer purchase intentions. Thus, AI-enabled messages in advertisements are vital to satisfying consumer purchase intentions.

7. Conclusion

The objective of advertising is to sell a good or service to a specific audience through promotional activities. The study outlines a conceptual framework for predicting the impact of advertising and how artificial intelligence will redefine advertising strategies and support enhancing consumer relationships and engagement levels. Artificial intelligence improves company advertising methods. The application of Artificial Intelligence tools will make targeted advertising, innovative ads, and performance optimization simpler than they were in the past. However, there are certain implementation-related difficulties. Artificial intelligence in advertisements appears to be going away soon. Observing the outcomes of artificial intelligence had a positive influence on

advertising; however, there remains a lot to investigate and deal with. By utilizing cutting-edge technology like artificial intelligence for advertising, we can now investigate more beneficial methods of advertising that will set a new standard and transform the advertising sector.

8. Future and Limitation of the Study

The research explores the indirect and direct effects of advertising messages on consumer purchase intention by contributing valuable insights in the field of marketing literature. A future study has to consider constraints to investigate how advertising messages affect other social media platforms, but they also should consider various other constructs to examine the relationship. Future studies could evaluate other advertising strategies, such as calls to action and length, and look into additional peripheral content characteristics like generating pleasant or negative emotions. Examining alternative outcomes such as brand awareness, online buying behaviour, and eWOM is also necessary. Finally, more research is necessary to reinforce the conceptual model about the moderated-mediation impact caused by AI and personal significance.

References

- [1] Jayati Adhya, and Joydip Chandra, "Social Media Communication: Facebook Use Pattern of LIS People," *Librarian*, vol. 23, pp. 1-9, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [2] Dana A. Al Qudah et al., "Investigating Users' Experience on Social Media Ads: Perceptions of Young Users," *Heliyon*, vol. 6, no. 7, pp. 1-9, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [3] Ali Abdallah Alalwan et al., "A Systematic Review of Extant Literature in Social Media in the Marketing Perspective," *Social Media: The Good, the Bad, and the Ugly: 15th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society*, Swansea, UK, pp. 79-89, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [4] Ali Abdallah Alalwan, "Investigating the Impact of Social Media Advertising Features on Customer Purchase Intention," *International Journal of Information Management*, vol. 42, pp. 65-77, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [5] Abdalrazzaq Alooqool, and Mohammad A.K Alsmairat, "The Impact of Social Commerce on Online Purchase Intention: The Mediation Role of Trust in Social Network Sites," *International Journal of Data and Network Science*, vol. 6, no. 2, pp. 509-516, 2022. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [6] Hera Anam, and Rafia Faiz, "An Empirical Examination of Brand Loyalty via Customer Delight in Pakistan," *Journal of Management and Research*, vol. 3, no. 1, pp. 1-28, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [7] Seraj A. Ansari et al., "Chemistry of Diglycolamides: Promising Extractants for Actinide Partitioning," *Chemical Reviews*, vol. 112, no. 3, pp. 1751-1772, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [8] Victor Barger et al., "Social Media and Consumer Engagement: A Review and Research Agenda," *Journal of Research in Interactive Marketing*, vol. 10, no. 4, pp. 268-287, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [9] Nima Barhemmati, and Azhar Ahmad, "Effects of Social Network Marketing (SNM) on Consumer Purchase Behavior through Customer Engagement," *Journal of Advanced Management Science*, vol. 3, no. 4, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [10] Ana Margarida Barreto, and Diogo Ramalho, "The Impact of Involvement on Engagement with Brand Posts," *Journal of Research in Interactive Marketing*, vol. 13, no. 3, pp. 277-301, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [11] Muhammad Bilal et al., "Artificial Intelligence Is the Magic Wand Making Customer-Centric a Reality! An Investigation into the Relationship between Consumer Purchase Intention and Consumer Engagement through Affective Attachment," *Journal of Retailing and Consumer Services*, vol. 77, pp. 1-11, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [12] Lorena Blasco-Arcas et al., "Engagement Platforms: The Role of Emotions in Fostering Customer Engagement and Brand Image in Interactive Media," *Journal of Service Theory and Practice*, vol. 26, no. 5, pp. 559-589, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [13] Randolph E. Bucklin et al., "Choice and the Internet: From Clickstream to Research Stream," *Marketing Letters*, vol. 13, pp. 245-258, 2002. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]

- [14] Jamie Carlson et al., “Customer Engagement Behaviours in Social Media: Capturing Innovation Opportunities,” *Journal of Services Marketing*, vol. 32, no. 1, pp. 83-94, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [15] Jia Chen et al., “Effect of Marketing Messages and Consumer Engagement on Economic Performance: Evidence from Weibo,” *Internet Research*, vol. 30, no. 5, pp. 1565-1581, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [16] Xiayu Chen et al., “How Technology Support for Contextualization Affects Enterprise Social Media Use: A Media System Dependency Perspective,” *IEEE Transactions on Professional Communication*, vol. 62, no. 3, pp. 279-297, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [17] Christy M.K. Cheung, and Dimple R. Thadani, “The Impact of Electronic Word-Of-Mouth Communication: A Literature Analysis and Integrative Model,” *Decision Support Systems*, vol. 54, no. 1, pp. 461-470, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [18] Prasanta Kr Chopdar, and Janarthanan Balakrishnan, “Consumers Response towards Mobile Commerce Applications: SOR Approach,” *International Journal of Information Management*, vol. 53, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [19] Stephanie Hui-Wen Chuah et al., “What Drives Gen Y Loyalty? Understanding The Mediated Moderating Roles of Switching Costs and Alternative Attractiveness in The Value-Satisfaction-Loyalty Chain,” *Journal of Retailing and Consumer Services*, vol. 36, pp. 124-136, 2017. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [20] Agnieszka Chwialkowska, “The Effectiveness of Brand-and Customer-Centric Content Strategies at Generating Shares, ‘Likes’, and Comments,” *Journal of Promotion Management*, vol. 25, no. 2, pp. 270-300, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [21] Efthymios Constantinides, “Influencing the Online Consumer’s Behavior: The Web Experience,” *Internet Research*, vol. 14, no. 2, pp. 111-126, 2004. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [22] Maria Cummings, “*Consumer Engagement Perspectives: A Tool for Ensuring Advertising’s Impact?*,” Master Thesis, Institute of Technology Rochester, New York, pp. 1-79, 2007. [[Google Scholar](#)] [[Publisher Link](#)]
- [23] Rebecca Dolan et al., “Social Media Engagement Behavior: A Framework for Engaging Customers Through Social Media Content,” *European Journal of Marketing*, vol. 53, no. 10, pp. 2213-2243, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [24] Yogesh K. Dwivedi et al., “Artificial Intelligence (AI): Multidisciplinary Perspectives on Emerging Challenges, Opportunities, and Agenda for Research, Practice and Policy,” *International Journal of Information Management*, vol. 57, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [25] Ilker Etikan et al., “Comparison of Convenience Sampling and Purposive Sampling,” *American Journal of Theoretical and Applied Statistics*, vol. 5, no. 1, pp. 1-4, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [26] Sara Fraccastoro, Mika Gabriellson, and Ellen Bolman Pullins, “The Integrated Use of Social Media, Digital, and Traditional Communication Tools in the B2B Sales Process of International SMEs,” *International Business Review*, vol. 30, no. 4, pp. 1-15, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [27] Christina K. Gregory, Adam W. Meade, and Lori Foster Thompson, “Understanding Internet Recruitment Via Signaling Theory and The Elaboration Likelihood Model,” *Computers in Human Behavior*, vol. 29, no. 5, pp. 1949-1959, 2013. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [28] R. Gupta, N. Gupta, and P.J.A.M. Rathi, “Bacterial Lipases: An Overview of Production, Purification and Biochemical Properties,” *Applied Microbiology and Biotechnology*, vol. 64, pp. 763-781, 2004. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [29] Joseph F. Hair et al., *Multivariate Data Analysis*, 7th ed., Prentice Hall, pp. 1-785, 2010. [[Google Scholar](#)] [[Publisher Link](#)]
- [30] Joseph F. Hair, Christian M. Ringle, and Marko Sarstedt, “Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance,” *Long Range Planning*, vol. 46, no. 1-2, pp. 1-12, 2013. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [31] Andrew F. Hayes, “An Index and Test of Linear Moderated Mediation,” *Multivariate Behavioral Research*, vol. 50, no. 1, pp. 1-22, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [32] Andrew F. Hayes, “Partial, Conditional, and Moderated Moderated Mediation: Quantification, Inference, and Interpretation,” *Communication Monographs*, vol. 85, no. 1, pp. 4-40, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [33] Bieke Henkens, Katrien Verleye, and Bart Larivière, “The Smarter, the Better?! Customer Well-Being, Engagement, and Perceptions in Smart Service Systems,” *International Journal of Research in Marketing*, vol. 38, no. 2, pp. 425-447, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [34] Linda D. Hollebeek, Mark S. Glynn, and Roderick J. Brodie, “Consumer Brand Engagement in Social Media: Conceptualization, Scale Development and Validation,” *Journal of Interactive Marketing*, vol. 28, no. 2, pp. 149-165, 2014. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [35] Rick H. Hoyle, *Structural Equation Modeling: Concepts, Issues, and Applications*, Sage, pp. 1-312, 1995. [[Google Scholar](#)] [[Publisher Link](#)]
- [36] Digital Ad Spend Worldwide 2027, Statista, 2024. [Online]. Available: <https://www.statista.com/statistics/237974/online-advertising-spending-worldwide/#:~:text=It%20was%20calculated%20that%20the,389%20billion%20dollars%20in%202021>

- [37] Areeba Toor, Mudassir Husnain, and Talha Hussain, "The Impact of Social Network Marketing on Consumer Purchase Intention in Pakistan: Consumer Engagement as A Mediator," *Asian Journal of Business and Accounting*, vol. 10, no. 1, pp. 167-199, 2017. [[Google Scholar](#)] [[Publisher Link](#)]
- [38] Yi-Zhou Jiang et al., "Genomic and Transcriptomic Landscape of Triple-Negative Breast Cancers: Subtypes and Treatment Strategies," *Cancer Cell*, vol. 35, no. 3, pp. 428-440, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [39] Shampy Kamboj et al., "Examining Branding Co-Creation in Brand Communities on Social Media: Applying the Paradigm of Stimulus-Organism-Response," *International Journal of Information Management*, vol. 39, pp. 169-185, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [40] Jahangir Karimi, and Zhiping Walter, "The Role of Dynamic Capabilities in Responding to Digital Disruption: A Factor-Based Study of the Newspaper Industry," *Journal of Management Information Systems*, vol. 32, no. 1, pp. 39-81, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [41] Jan Kietzmann, Jeannette Paschen, and Emily Treen, "Artificial Intelligence in Advertising: How Marketers Can Leverage Artificial Intelligence Along the Consumer Journey," *Journal of Advertising Research*, vol. 58, no. 3, pp. 263-267, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [42] Rex B. Kline, *Promise and Pitfalls of Structural Equation Modeling in Gifted Research*, American Psychological Association, pp. 147-169, 2010. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [43] Dokyun Lee, Kartik Hosanagar, and Harikesh S. Nair, "Advertising Content and Consumer Engagement on Social Media: Evidence from Facebook," *Management Science*, vol. 64, no. 11, pp. 5105-5131, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [44] Xi Y. Leung, Billy Bai, and Kurt A. Stahura, "The Marketing Effectiveness of Social Media in the Hotel Industry: A Comparison of Facebook and Twitter," *Journal of Hospitality & Tourism Research*, vol. 39, no. 2, pp. 147-169, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [45] Bingyi Liao, "Optimization and Reconstruction: Research on the Development of China's Smart Advertising Industry," *Contemporary Communications*, vol. 7, pp. 97-101, 2017. [[Google Scholar](#)]
- [46] Barak Libai et al., "Brave New World? On AI and the Management of Customer Relationships," *Journal of Interactive Marketing*, vol. 51, no. 1, pp. 44-56, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [47] Akiva Liberman, and Shelly Chaiken, "The Direct Effect of Perceived Personal Relevance on Attitudes," *Personality and Social Psychology Bulletin*, vol. 22, no. 3, pp. 269-279, 1996. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [48] Yam B. Limbu, Marco Wolf, and Dale Lunsford, "Perceived Ethics of Online Retailers and Consumer Behavioral Intentions: The Mediating Roles of Trust and Attitude," *Journal of Research in Interactive Marketing*, vol. 6, no. 2, pp. 133-154, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [49] Carolyn A. Lin, and Tonghoon Kim, "Predicting User Response to Sponsored Advertising on Social Media Via the Technology Acceptance Model," *Computers in Human Behavior*, vol. 64, pp. 710-718, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [50] Sabina Lissitsa, and Ofrit Kol, "Generation X vs. Generation Y-A Decade of Online Shopping," *Journal of Retailing and Consumer Services*, vol. 31, pp. 304-312, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [51] Zied Mani, and Ines Chouk, "Consumer Resistance to Innovation in Services: Challenges and Barriers in the Internet of Things Era," *Journal of Product Innovation Management*, vol. 35, no. 5, pp. 780-807, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [52] Jose Martins et al., "How Smartphone Advertising Influences Consumers' Purchase Intention," *Journal of Business Research*, vol. 94, pp. 378-387, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [53] Vahidreza Mirabi, Hamid Akbariyeh, and Hamid Tahmasebifard, "A Study of Factors Affecting on Customers Purchases Intention," *Journal of Multidisciplinary Engineering Science and Technology*, vol. 2, no. 1, pp. 267-273, 2015. [[Google Scholar](#)] [[Publisher Link](#)]
- [54] Gillian Moran, Laurent Muzellec, and Devon Johnson, "Message Content Features and Social Media Engagement: Evidence from the Media Industry," *Journal of Product & Brand Management*, vol. 29, no. 5, pp. 533-545, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [55] Chad R. Mortensen, and Robert B. Cialdini, "Compliance and Social Psychology," *Oxford Research Encyclopedia of Psychology*, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [56] Jum C. Nunnally, *An Overview of Psychological Measurement*, Clinical Diagnosis of Mental Disorders: A Handbook, Springer, Boston, MA, pp. 97-146, 1978. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [57] Cornelia Pechmann, and David W. Stewart, "The Effects of Comparative Advertising on Attention, Memory, and Purchase Intentions," *Journal of Consumer Research*, vol. 17, no. 2, pp. 180-191, 1990. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [58] Iryna Pentina, Veronique Guilloux, and Anca Cristina Micu, "Exploring Social Media Engagement Behaviors in The Context of Luxury Brands," *Journal of Advertising*, vol. 47, no. 1, pp. 55-69, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [59] Richard E. Petty, and John T. Cacioppo, *The Elaboration Likelihood Model of Persuasion*, Communication and Persuasion: Central and Peripheral Routes to Attitude Change, Springer, pp. 1-24, 1986. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]

- [60] Kristopher J. Preacher, and Andrew F. Hayes, "Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models," *Behavior Research Methods*, vol. 40, no. 3, pp. 879-891, 2008. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [61] Catherine Prentice, and Mai Nguyen, "Engaging and Retaining Customers with AI and Employee Service," *Journal of Retailing and Consumer Services*, vol. 56, pp. 1-13, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [62] Michael Putter, "The Impact of Social Media on Consumer Buying Intention," *Marketing*, vol. 3, no. 1, pp. 7-13, 2017. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [63] Xuebing Qin, and Zhibin Jiang, "The Impact of AI on the Advertising Process: The Chinese Experience," *Journal of Advertising*, vol. 48, no. 4, pp. 338-346, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [64] Naveen Rai, "Impact of Advertising on Consumer Behaviour and Attitude with Reference to Consumer Durables," *International Journal of Management Research and Business Strategy*, vol. 2, no. 2, pp. 74-79, 2013. [[Google Scholar](#)] [[Publisher Link](#)]
- [65] Meghna Rana, and Nilesh Arora, "Decoding the Social Media Advertising Influence on Consumer Attitude and Intention," *Vision: The Journal of Business Perspective*, 2022. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [66] Jeffrey F. Rayport, and Bernard Jaworski, *Introduction to E-Commerce*, McGraw-Hill, pp. 1-516, 2003. [[Google Scholar](#)] [[Publisher Link](#)]
- [67] Keith B. Rodgers et al., "Ubiquity of Human-Induced Changes in Climate Variability," *Earth System Dynamics*, vol. 12, no. 4, pp. 1393-1411, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [68] Filipa Rosado-Pinto, and Sandra Maria Correia Loureiro, "The Growing Complexity of Customer Engagement: A Systematic Review," *EuroMed Journal of Business*, vol. 15, no. 2, pp. 167-203, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [69] Filipa Rosado-Pinto, Sandra Maria Correia Loureiro, and Ricardo Godinho Bilro, "How Brand Authenticity and Consumer Brand Engagement Can Be Expressed in Reviews: A Text Mining Approach," *Journal of Promotion Management*, vol. 26, no. 4, pp. 457-480, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [70] James A. Russell, and Albert Mehrabian, "Distinguishing Anger and Anxiety in Terms of Emotional Response Factors," *Journal of Consulting and Clinical Psychology*, vol. 42, no. 1, pp. 79-83, 1974. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [71] Marko Sarstedt et al., "Estimation Issues with PLS and CBSEM: Where the Bias Lies!," *Journal of Business Research*, vol. 69, no. 10, pp. 3998-4010, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [72] Roger Bougie, and Uma Sekaran, *Research Methods for Business: A Skill Building Approach*, 8th ed., John Wiley and Sons, pp. 1-432, 2019. [[Google Scholar](#)] [[Publisher Link](#)]
- [73] Sylvain Senecal, and Jacques Nantel, "The Influence of Online Product Recommendations on Consumers' Online Choices," *Journal of Retailing*, vol. 80, no. 2, pp. 159-169, 2004. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [74] Tyler Shanahan, Trang P. Tran, and Erik C. Taylor, "Getting to Know You: Social Media Personalization as A Means of Enhancing Brand Loyalty and Perceived Quality," *Journal of Retailing and Consumer Services*, vol. 47, pp. 57-65, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [75] Anshuman Sharma et al., "Does SMS Advertising Still Have Relevance to Increase Consumer Purchase Intention? A Hybrid PLS-SEM-Neural Network Modelling Approach," *Computers in Human Behavior*, vol. 124, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [76] Wondwesen Tafesse, and Anders Wien, "Implementing Social Media Marketing Strategically: An Empirical Assessment," *Journal of Marketing Management*, vol. 34, no. 9-10, pp. 732-749, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [77] Shasha Teng et al., "Persuasive Electronic Word-Of-Mouth Messages in Social Media," *Journal of Computer Information Systems*, vol. 57, no. 1, pp. 76-88, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [78] Pedro Torres, Mario Augusto, and Marta Matos, "Antecedents and Outcomes of Digital Influencer Endorsement: An Exploratory Study," *Psychology and Marketing*, vol. 36, no. 12, pp. 1267-1276, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [79] Jamid Ul Islam, Zillur Rahman, and Linda D. Hollebeek, "Personality Factors as Predictors of Online Consumer Engagement: An Empirical Investigation," *Marketing Intelligence and Planning*, vol. 35, no. 4, pp. 510-528, 2017. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [80] Lizardo Vargas-Bianchi, and Marta Mensa, "Do You Remember Me? Women Sexual Objectification in Advertising among Young Consumers," *Young Consumers*, vol. 21, no. 1, pp. 77-90, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [81] Welf H. Weiger, Maik Hammerschmidt, and Hauke A. Wetzel, "Don't You Dare Push Me: How Persuasive Social Media Tactics Shape Customer Engagement," *Journal of the Association for Consumer Research*, vol. 3, no. 3, pp. 364-378, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [82] Lotte M. Willemsen et al., "Let's Get Real (Time)! The Potential of Real-Time Marketing to Catalyze the Sharing of Brand Messages," *International Journal of Advertising*, vol. 37, no. 5, pp. 828-848, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [83] Nina Wirtz et al., "What about the Leader? Crossover of Emotional Exhaustion and Work Engagement from Followers to Leaders," *Journal of Occupational Health Psychology*, vol. 22, no. 1, pp. 86-97, 2017. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [84] Wann-Yih Wu et al., "The Effects of Product Scarcity and Consumers' Need for Uniqueness on Purchase Intention," *International Journal of Consumer Studies*, vol. 36, no. 3, pp. 263-274, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]

- [85] Jiwang Yin, and Xiaodong Qiu, "AI Technology and Online Purchase Intention: Structural Equation Model Based on Perceived Value," *Sustainability*, vol. 13, no. 10, pp. 1-16, 2021. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [86] Xinsu Zhao, Jr. John G. Lynch, and Qimei Chen, "Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis," *Journal of Consumer Research*, vol. 37, no. 2, pp. 197-206, 2010. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [87] Dong Hong Zhu, Hui Sun, and Ya Ping Chang, "Effect of Social Support on Customer Satisfaction and Citizenship Behavior in Online Brand Communities: The Moderating Role of Support Source," *Journal of Retailing and Consumer Services*, vol. 31, pp. 287-293, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [88] Yu-Qian Zhu, and Jung-Hua Chang, "The Key Role of Relevance in Personalized Advertisement: Examining Its Impact on Perceptions of Privacy Invasion, Self-Awareness, and Continuous Use Intentions," *Computers in Human Behavior*, vol. 65, pp. 442-447, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [89] Peter Pal Zubcsek, Zsolt Katona, and Miklos Sarvary, "Predicting Mobile Advertising Response Using Consumer Colocation Networks," *Journal of Marketing*, vol. 81, no. 4, pp. 109-126, 2017. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]