A PLS-SEM Study to Test the Role of Social Media in Influencing Purchase Intention

Irfan Ul Haque*

Abstract

In light of the growing importance of social networking marketing (SMM) to the profitability of tiny and medium-sized businesses (SMEs) and the relatively modest adoption rate of SMM among SMEs, this study seeks to determine which factors influence SMEs’ adoption of SMM. This study, unlike the majority of others, proposed a two-stage analysis combining the partial least squares (PLS) method with an artificial intelligence technique called an artificial neural network (ANN). Using a deep ANN architecture, the proposed model can make predictions with a 91% success rate. The marketing rate of social networking site adoption was found to be significantly affected by the strength of the relationship between perceived efficiency, user approval of use, perceived expenses, encouragement from upper management, beneficial conditions, and vendor pressure. The findings of this study contribute to the expanding body of literature on online advertising by shedding light on the role played by technological, corporate, and ecological (TOE) variables in consumers’ adoption of social media promotional activities. Investment choices in digital marketing in comparable and non-competitive industries can benefit from the study’s findings, which can be used by policymakers as well as managers of SMM and consumer behavior.

Keywords: Social media marketing; digital marketing; mobile marketing; TOE factors; buying behavior; technology adoption and determinants.

JEL Classification: M310

1. Introduction

Social media marketing, one of the fastest-growing areas of digital advertising, provides tremendous advantages and can help you reach billions of customers around the world (Miao et al., 2022). To promote one’s business and boost earnings, this is an excellent strategy. There are a lot of positives to using social media for advertising (Khan et al., 2022c). For one, it raises brand recognition; 91% of marketers believe social media ads enhance the online experience for their target audience. By engaging in two-way conversations with

*Ph.D. Scholar Greenwich University, Business Administration Karachi, Pakistan. Email: irfan3323@gmail.com
followers, users of social media platforms can learn invaluable information about their target demographic (Jiang et al., 2018). Users have not universally reaped the advantages of social media’s growth into new arenas of information sharing, communication, and interaction (Zaman et al., 2018). This is adding fuel to the fire of social media’s unequal distribution (Khan et al., 2022b). For instance, the elderly and those with lower levels of education gain less from mainstream social media than their younger and more advantaged peers (Khan et al., 2022a).

The use of social media platforms is revealed, is politicized and commercialized, and is highly individual. In 2008, researchers polled college students across the United States and found that 85.5% of them were active on at least one social networking site (Miao et al., 2020). People today provide themselves in various ways across a variety of channels, and they may change their identities and images while having a conversation about their highest priorities, values, and perspectives on the world (Khan et al., 2022d). Even though interaction and linking were the goals of social tools in the first place, individual actions triggered by compromising aspects of social life are fostering solitary behavior in these cutting-edge social spaces (Mubarik et al., 2021).

New motivations for being and strategies for success have emerged in response to the profound shifts in the online social space; these have not supplanted but rather are realized through interpersonal contact (Khan et al., 2021b). When we don’t feel confident in our own ideas and skills, we often compare ourselves to the thoughts and actions of those around us. Social comparison sufferers typically have low self-esteem and look to comparisons with others as a means of boosting their own sense of worth (Khan et al., 2023a). Inadequacy in the classroom, low self-esteem, a negative sense of self, and anxiety disorders may be more prevalent among people who make lots of comparisons to others (Islam et al., 2021). However, people who don’t compare themselves to others tend to be more receptive to new ideas, information, and opinions from others and spend more time concentrating on and developing their own internal mental models (Akbar et al., 2017). Those with low self-worth, depression, or self-doubt are more likely to spend money on Facebook in an effort to engage in social comparison or other comparison-based activities (Agha et al., 2021). The impact of social comparison can lead to a rise in feelings of inadequacy about one’s own value (Khan et al., 2021a).

When we say that someone has low self-esteem, what we really mean is that they have a negative opinion of themselves (Mubarik et al., 2021). People who lack confidence spend a lot of time on social media because it allows them to avoid talking to real people (Mubarik et al., 2021). The rise of influencers in the social media sphere has been associated with a dramatic shift in consumers’ priorities toward ephemeral qualities (Khan et al., 2022c). Individuals who are materialistic are preoccupied with their physical and financial well-being (Jamil et al., 2022). There is a widespread negative perception of materialistic ways of
thinking because they are associated with callous, exploitative, and antagonistic approaches to other people (Jiang et al., 2018). Research shows that people who spend a lot of time glued to the screen of the TV are more likely to value material possessions (Khan et al., 2021b). Reasons for this could include the widespread message conveyed by media outlets that monetary success and luxury are prerequisites for a fulfilled existence (Khan et al., 2023b).

1.1 Objectives of the Study

1. The focus of this research is how material and social comparisons are related.
2. There is an emphasis on how gender, age, and nationality affect business outcomes.
3. This study explores the characteristics of influencers on social media and how they sway their followers’ intentions to make purchases.
4. This study will help researchers learn more about the effects of self-selection bias.
5. This research aims to examine how people use the advancement of technology in social media, as well as the impact of verbal relationships on peer pressure.

1.2 Research Problems

Some people in the community are more than happy to participate in the identity surveys since they think doing so will give them more influence. This is an example of self-selection bias, which causes people to put themselves first. In addition, it undermines confidence in the results. The research needs to uncover the varying motivations for social media use across cultural groups. Furthermore, research should incorporate cultural and socioeconomic factors as facilitators of the utilization of social media platforms to enhance performance. Finally, SMM fosters luxury brands and encourages rivalry among followers, both of which are associated with materialism, a mindset in which people place an inordinate value on material possessions and excessive spending. Finally, the cross-sectional nature of the study limits the potential benefits of implementing social media marketing by making it necessary to account for the positive effects of technological, organizational, or environmental factors in nature.

1. Why do people with different cultural backgrounds engage in different social media platforms?
2. Why must social media marketing research need to include demographic and cultural variables as moderating use?
3. What kind of measures can we take to stop social comparison among followers?
2. Literature review

2.1 Social Media Marketing Activities

In order to boost their brand awareness, most businesses today use promotional strategies like blogger endorsements, social media ads, and user-generated content management (Miao et al., 2020). The term “social media” is used to describe the network of websites and applications that were developed using the principles of the Web 2.0 movement in order to promote the sharing of user-generated content (Zafar et al., 2022). In comparison to more static mediums such as radio, television, and print, social media’s interactive nature makes it the most important communication channel for spreading brand information (Maduku et al., 2016). A few instances of what we now refer to as “social media” include blogs, communities on the internet, user reviews, networks of human beings (Twitter, Blogger, LinkedIn, and Facebook), and encyclopedias (Wikis).

Information, collaboration, and interpersonal connections all benefit from the widespread use of social media (Mujahid et al., 2019). There is a wide variety of social networking sites and applications available for use with each one (Mujahid et al., 2019). Some examples include bookmarking, evaluation, pictures, videos, webcasts, wikis, writing blogs, social blogs, and weblogs (Nesi & Prinstein, 2015). There has been a significant uptick in the past few years in the use of social media as a means to communicate among social networkers, government agencies, and businesses (Näsi et al., 2012). All levels of government and private industry use social media for marketing (Parsons & Lepkowska-White, 2018). When consumer partners, events, media, internet items, and retailers are all connected and interacting with one another in a seamless manner, as they are in social networks, integrated marketing activities are not only more effective but also less expensive to implement (Podsakoff et al., 2003).

Luxury advertising campaigns heavily rely on individualization, image, fashionability, communication, and amusement to sway consumers’ propensity to buy and their opinion of a brand’s value (Rana et al., 2019). Unlike products, which are beyond the purview of the consumer, community marketing takes place when an experience has an effect on the consumer’s feelings or thoughts (Selwyn et al., 2003). In spite of this, users and consumers can expect varying outcomes from the same event and service exposure due to individual differences in perception (Siren & Knudsen, 2017). Promotions should focus on themes and sensations that will impress and please consumers in light of the likelihood that future marketing competition will center on advertising for brand initiatives (Sullivan & Koh, 2019). Nowadays, consumers expect nothing less than top-notch quality from the brands they support.
2.2 Perceived Cost and SMM

What Do People Think it’s Worth? There is a strong correlation between how people perceive the value of a product or service and their likelihood of adopting and using new technology, as shown by previous research (Tafesse & Wien, 2018). The cost of implementing a social media marketing strategy may be a deciding factor for small and medium-sized businesses (SMEs) (Miao et al., 2022). Malaysia is a good example of a country where the cost of IT hasn’t been a major stumbling block to widespread adoption (Tan et al., 2009).

There will be significant up-front costs for any enterprise that decides to implement cutting-edge technology. On the other hand, some small and medium-sized enterprises (SMEs) prioritize using social media over other forms of IT adoption due to its low cost, low barrier to entry, and quick use. For the right price, many businesses would prefer to advertise via social media rather than any other channel due to the two-way interaction it enables with customers. Social networking sites usually have a low barrier to entry when compared to other advances in technology (Khan et al., 2022a). It’s a cheap way for small businesses to connect with their customers. Small and medium-sized businesses (SMBs) are more likely to use social media marketing if the associated costs are manageable (Khan et al., 2022d). The following conjecture is warranted in light of the preceding discussion:

\[ H1: \text{The perceived cost has a negative influence on social media marketing adoption.} \]

2.3 Perceived Usefulness and purchase intention

The connection between social media marketing’s popularity and perceived usefulness has been studied at length (SMM) (Zaman et al., 2018). (Wang & Kim, 2017) researched the link between PEU and tech adoption and found a positive correlation. The use of mobile devices is associated favorably with PEU. The PEU of technology is its perceived performance, efficiency, risk, and trustworthiness (Cheung et al., 2021). Perceived usefulness considers benefits, risks, privacy, and security. Multiple arguments support a link between FCO and intent to purchase (Elbanna et al., 2019). First, according to the Unified Theory of Acceptance and Use of Technology (UTAUT), the Four Contextual Outcomes (FCO) construct is one of four key characteristics that determine user acceptance and technology use behavior (Derham et al., 2011). When facilitating conditions such as convenience, accessibility, and system suitability are met, the propensity of a user to make a purchase in the context of electronic commerce or social media purchasing is increased (Duffett, 2015). Second, according to ECT, a customer’s satisfaction and subsequent repurchase propensity can be increased if the supporting conditions meet or exceed their initial expectations (Fatima & Bilal, 2020). The quality of an online purchasing platform may influence a customer’s propensity to make a purchase, for instance (Festinger, 1954).
Lastly, from a pragmatic standpoint, enabling situations may impact the user’s perception of the effort required to complete a transaction. The consumer is more likely to have a purchase intent if they perceive the process to be straightforward and uncomplicated due to predetermined enabling factors. Alternatively, if the purchasing process is too complicated, it may deter consumers from making a purchase. In conclusion, there is a plausible explanation for the relationship between favorable conditions and the intention to purchase. When consumers are presented with favorable conditions, they are more likely to complete their intended purchase. Applying SMM for purchasing intention will gain many of these challenges that can be resolved. From these data, we can infer the following hypothesis:

**H2**: Perceived usefulness positively affects the use of SMM for purchase intention.

### 2.4  Facilitating conditions (FCO) purchase intention

When we talk about “facility conditions,” we’re referring to things like the staff’s confidence that this is the right technical facility and the approval of higher-ups to roll out the new system (Venkatesh, 2012). Evidence from the past indicates that the tendency of individuals to adopt new innovations is significantly influenced by enabling conditions. (Chatterjee & Kar, 2020) According to the results of this study, the following theory has some merit:

**H3**: Facilitating conditions (FCO) positively impact the use of SMM for purchase intention.

### 2.5  Perceived Ease-of-Use (PEOU) purchase intention

Using technology or system contradicts the widely held belief that technology is increasingly user-friendly (Mubarik et al., 2021). Among these are the notions of self-sufficiency and ease. These are also considered to play a role in convincing SMEs to join the social media sphere (Khan et al., 2023c). Users are more likely to adopt new technology if it is perceived to be user-friendly (Ware, 2018). This proves that PEOU interacts favorably with technological progress. Chatterjee and Kar (2020) research demonstrates a causal link between PEOU and SMM uptake. As a result of these findings, the following conjecture is made:

**H4**: Perceived ease-of-use (PEOU) has a positive impact on the use of SMM for purchase intention.

### 2.6  Social Media Marketing (SMM) and purchase intention

Internet-based social media serve as a virtual meeting place where people can connect, share, and seek out new ideas and as a platform for individual growth and group endeavors (Ghobakhloo et al., 2012). An estimated number of Indonesians spend 3 hours and
26 minutes online across all social media platforms (We are Social, 2020). This demonstrates that the business potential for social media is high and that this Framework has become a simple instrument for instantaneous global online communication between customers and businesses (Jamil et al., 2023). This platform is excellent if a buyer has few options due to a lack of money, expertise, etc (Keipi et al., 2018). Trust in a company and its products is bolstered by its use of social media marketing, and simplifying product research for consumers (Mubarik et al., 2021). Trust, closeness and customer loyalty positively correlate with social media marketing strategies. Business brand development and expansion are simplified by the organization’s use of social media (Khoa, 2020). Through the use of SMM, they can enhance their purchasing decisions (Lin & Ho, 2011). The following hypotheses are proposed in light of these results.

\textit{H5: Social media marketing has a positive effect on purchase intention.}

\begin{figure}
\centering
\includegraphics[width=0.8\textwidth]{conceptual_framework.png}
\caption{Conceptual Framework}
\end{figure}

3. Research Methodology

3.1 Measure of Constructs

It’s worth noting that a questionnaire was used to compile data for this cross-sectional analysis. All of the items in the study came straight from existing literature. Two technological considerations are value and expense. Organizing Considerations Management support, user-friendliness, and employee knowledge were all evaluated with scales. Items pertaining to external variables like perceived simplicity of use, enabling conditions, and supplier support are adapted from Oliveira et al. (2014), Wu and Lee (2005), and
Ghobakhloo et al. (2011). All items were graded on a 5-point Likert scale, with “strongly disagree” and “strongly agree” serving as the two poles. Common method bias was also addressed by employing the Harman factor test, which was suggested by (Podsakoff et al., 2023) The one-factor variability produced by this test is less than 50%.

3.2 Data Collection and the Sample

Students at various educational institutions were included in this analysis. Today, most college students use social networking sites for academic and professional purposes, such as Facebook and Instagram. The investigators selected SMM as the subject population because it accounts for 98.5% of local businesses in purchase intention, which accounts for 37.5% of the domestic product purchase. A qualitative methodology was used to substantiate the assumption suggested in the research. Notably, data were obtained via self-administered & online surveys. The survey was comprised of two sections. The first section was devoted to demographics. Chapter 2 assessed perceived cost, value, and ease regarding ease of use, purchase intent and advertising on social media on Likert scales. The questionnaire’s first page doubled as a cover sheet that explained the research’s goals. Participants were assured that their responses would remain confidential. Users of social media platforms were the focus of this analysis. The students themselves served as the sampling frame in this case. Purposive sampling was used to select participants, and those participants were chosen according to two factors. To begin with, they needed to be an Insta user, and secondly, they needed to follow at least one Instagram influencer who regularly posts products or brand endorsements.

Using a technique commonly used in previous studies, respondents were then asked to provide the name of the Influencer they followed, which would be an anchor regard for the remaining questions in the questionnaire. These two conditions guaranteed that most of the Respondents had appropriate background knowledge for this study. We gave the respondents a 5-point Likert scale to rate how much they agreed with statements about whether or not they were likely to buy products or services supported by (Instafamous). The partial least squares ordinary least square method (PLS-SEM), was performed with the help of Smart PLS software and was used to examine the data used in this study. We used PLS-SEM because it was appropriate for this exploratory study to determine whether or not there was a correlation between SMM and consumer intent to make a purchase.

3.3 Research Design

In order to identify the relationship between the explanatory and explanatory variables, the study adopted a quantitative strategy and a cross-sectional design. The primary source of information came from Google Docs surveys disseminated via social media platforms like Twitter, Instagram, and WhatsApp. Non-probability sampling was used with (closed) structural questions on the questionnaires. In non-probability sampling, selecting
sample data from the target population is not random. Furthermore, (Lian et al., 2014) hypothesized that a small sample size could limit the applicability of research findings. This study’s sample size is sufficient.

3.4 Statistical approach

In contrast to prior studies that solely relied on Structural Equation Modeling (SEM) for data analysis, the current study’s authors employed a deep learning-based, double PLS-SEM and ANN technique. Using a hybrid method based on deep learning, we tested whether or not the predicted relationships exist between the constructs. Based on the PLS results, this would also prioritize the factors. Researchers analyzed the research model during the initial phase of PLS-SEM analyses by assessing assumptions using (Puspaningrum, 2020) 2 different operations (outer model as well as inner model). In the following stage, sensitivity analysis was employed alongside ANN to determine the variables’ relative positions.

(Ainin et al., 2015) added that SEM is preferable to the PROCESS macro for assessing models with latent constructs. Due to this fact, the PROCESS preprocessor was not utilized during this study. We performed a comprehensive collinearity test by generating a random-number dummy variable and then going backwards on all factors (perceived price, perceived value, enabling conditions, regarded ease of use, acquisition intent). Discriminant validity was the last test of the measurement model. The (Alam & Noor, 2009) criterion requires that the square of the AVE of each construct be greater than the correlation for every other conceptual Framework to verify that the PLS model is free from the problem of discriminant validity (Fornell & Larcker, 1981). Furthermore, if the value of the heterograft monotrait (HTMT) is more significant than 0.9, discriminant validity may be compromised (known as the HTMT criterion). When evaluating the impact of explanatory variables on a dependent variable, the total effect is used, while the mean score depicts the effectiveness of a variable.

3.5 Why use SEM via SMART PLS 4 and complement it with ANN

Artificial Neural Networks (ANN) and Smart PLS 4 (Partial Least Squares Structural Equation Modeling) have numerous applications and are effective instruments for researchers examining the influence of social media on consumer behavior and purchasing decisions. The adoption of an ANN is primarily motivated by its unparalleled ability to identify and model nonlinear correlations within the data. There is a multitude of interdependent factors and nonlinear forces at play in the dynamics of social media and its effect on purchase intent. Compared to more conventional statistical techniques, an ANN’s inherent ability to learn from data makes it a potent instrument for identifying enigmatic patterns and intricate correlations. Smart PLS 4, which provides a robust variance-based SEM (Structural Equation Modeling) method, is a valuable complement to ANN. It is especially valuable for
conceptualizing and assessing complex relationships between latent variables. The effect of social media on purchase intent is moderated or modified by variables such as perceived utility, trust, company attitude, etc. PLS-SEM is an ideal method for evaluating such models when the data distribution assumptions are not satisfied. Smart PLS 4 is well-suited to the complexity of a concept like social media influence because it can accommodate both reflective and formative assessment approaches.

The dataset can be extensively analysed using a combination of ANN and PLS-SEM. PLS-SEM is beneficial for validating theoretical models underlying the data, whereas ANN excels at identifying intricate patterns and providing predictive ability. Together, they provide a comprehensive picture of how social media influences the propensity of consumers to make a purchase decision.

### 3.6 Demographic Characteristics

Table 1  
*Respondent’s Profile (N=420)*

<table>
<thead>
<tr>
<th>Demographic items</th>
<th>Frequency</th>
<th>Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>177</td>
<td>42.15%</td>
</tr>
<tr>
<td>Female</td>
<td>243</td>
<td>57.85%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 25</td>
<td>308</td>
<td>73.3%</td>
</tr>
<tr>
<td>25 - 35</td>
<td>64</td>
<td>15.3%</td>
</tr>
<tr>
<td>35-45</td>
<td>48</td>
<td>11.4%</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Graduate</td>
<td>255</td>
<td>60.8</td>
</tr>
<tr>
<td>Graduate</td>
<td>117</td>
<td>27.8</td>
</tr>
<tr>
<td>M-Phil</td>
<td>23</td>
<td>5.5</td>
</tr>
<tr>
<td>PhD</td>
<td>25</td>
<td>5.9</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>315</td>
<td>75%</td>
</tr>
<tr>
<td>Married</td>
<td>95</td>
<td>22.7%</td>
</tr>
<tr>
<td>Divorced</td>
<td>10</td>
<td>2.3%</td>
</tr>
</tbody>
</table>
Explanation

Table 1 displays the results of the demographic analysis that was performed. The table shows that when the respondents were broken down by gender, 42.15% were males and females 57.85% seemed female. Most respondents (73.3%), were under the age of 25, while 15.3% were among the ages of 25 and 35 and 11.4% were over the age of 45. 68% of those who filled out the survey had advanced degrees, while 27.8% held a bachelor’s, 5.5% a master’s in the study of philosophy, and 5.9% a doctorate. 75% of the participants were single, 22.7% were living with a partner but not married, and 2.3% were divorced.

4. Result

This study measured the constructs competency of the model by reliability, validity, discriminate validity and convergent validity.

4.1 Data Analysis

Table 2
Measurement Model Assessment

<table>
<thead>
<tr>
<th>Variables</th>
<th>Items</th>
<th>Outer Loadings</th>
<th>Cronbach's alpha</th>
<th>Average Variance extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness</td>
<td>PU1</td>
<td>0.903</td>
<td>0.915</td>
<td>0.856</td>
</tr>
<tr>
<td></td>
<td>PU2</td>
<td>0.918</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PU3</td>
<td>0.954</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitating Conditions</td>
<td>FC1</td>
<td>0.925</td>
<td>0.902</td>
<td>0.836</td>
</tr>
<tr>
<td></td>
<td>FC2</td>
<td>0.896</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FC3</td>
<td>0.921</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Ease of Use</td>
<td>PEOU1</td>
<td>0.915</td>
<td>0.9110</td>
<td>0.849</td>
</tr>
<tr>
<td></td>
<td>PEOU2</td>
<td>0.902</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PEOU3</td>
<td>0.948</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Cost</td>
<td>PC1</td>
<td>0.935</td>
<td>0.921</td>
<td>0.864</td>
</tr>
<tr>
<td></td>
<td>PC2</td>
<td>0.920</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PC3</td>
<td>0.932</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Media Marketing</td>
<td>SMM1</td>
<td>0.923</td>
<td>0.925</td>
<td>0.870</td>
</tr>
<tr>
<td></td>
<td>SMM2</td>
<td>0.938</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SMM3</td>
<td>0.937</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Intension</td>
<td>PI1</td>
<td>0.561</td>
<td>0.882</td>
<td>0.894</td>
</tr>
<tr>
<td></td>
<td>PI2</td>
<td>0.496</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.2 Explanation

Table 2 displays that Cronbach’s alpha for all variables is greater than 0.7, indicating that the evaluation model meets the proposed standard for Composite reliability requirements. Convergent validity was assessed by ensuring that the AVE for each variable was greater than 0.5, as suggested by (Fornell & Larcker, 1981). As shown in Table 2, AVE values for all constructs are greater than 0.5, demonstrating the convergence reliability of the evaluation model.

4.3 Ethical Considerations

In order to make participants feel at ease during data collection, researchers established their credibility and trustworthiness beforehand. Second, we safeguard the privacy of members of marginalized populations because we value their specific needs. Moreover, privacy is maintained for all individuals involved in the initiatives and research. As a final step, we cited the work of our predecessors.

Table 3
Discriminant validity (Fornell-Larcker Criterion)

<table>
<thead>
<tr>
<th></th>
<th>Facilitating conditions</th>
<th>Perceived cost</th>
<th>Perceived ease of use</th>
<th>Perceived usefulness</th>
<th>Purchase Intention</th>
<th>Social Media Marketing (SMM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitating conditions</td>
<td>0.914</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived cost</td>
<td>0.882</td>
<td>0.929</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived ease of use</td>
<td>0.908</td>
<td>0.850</td>
<td>0.922</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived usefulness</td>
<td>0.869</td>
<td>0.780</td>
<td>0.846</td>
<td>0.925</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0.891</td>
<td>0.821</td>
<td>0.830</td>
<td>0.825</td>
<td>0.946</td>
<td></td>
</tr>
<tr>
<td>Social Media Marketing (SMM)</td>
<td>0.890</td>
<td>0.846</td>
<td>0.841</td>
<td>0.866</td>
<td>0.854</td>
<td>0.933</td>
</tr>
</tbody>
</table>

4.4 Explanation

Discriminate validity of AVEs and cross loadings are shown in Table 3. (average Variance extracted). AVE values should be greater than construct correlation (Fornell & Larcker, 1981) Evidence from FLC demonstrates that the diagonal values meet. Given these considerations, the research presented here is trustworthy and sound. The results of these analyses demonstrate the validity and trustworthiness of this study.
4.5 **Structure Model**

Model analysis of the structure was carried out by using a standardized approach. Moreover, the hypothesis being tested is reflected in each possible route. Table 4 displays the outcomes of a path analysis.

![Figure 2: A Path Analysis](image)

**Table 4**

*Mean, STDEV, T-Values, P-Values*

| Regression path                                      | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values | Decision    |
|------------------------------------------------------|-----------------|----------------------------|----------------|----------|-------------|
| Perceived cost -> Social Media Marketing (SMM)       | 0.250           | 0.152                      | 1.664          | 0.097    | Not Supported |
| Perceived usefulness -> Social Media Marketing (SMM) | 0.353           | 0.083                      | 4.372          | 0.000    | Supported   |
| Facilitating conditions -> Social Media Marketing (SMM) | 0.348           | 0.114                      | 3.071          | 0.002    | Supported   |
| Perceived ease of use -> Social Media Marketing (SMM) | 0.016           | 0.130                      | 0.009          | 0.993    | Not Supported |
| Social Media Marketing (SMM) -> Purchase Intention  | 0.856           | 0.025                      | 34.140         | 0.000    | Supported   |
4.6 Regression

Table 5
Model Summary for Regression Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Intention</td>
<td>0.730</td>
</tr>
<tr>
<td>Social Media Marketing (SMM)</td>
<td>0.841</td>
</tr>
</tbody>
</table>

4.7 Explanation

Path analysis yields five hypotheses, with three confirmed and two disproved. Given that the Sig value of 0.097 (P>0.097) is greater than 5% or 0.05, the null hypothesis H1 Perceived cost -> Social Media Marketing (SMM), is rejected. Since the Sig value for H2 (Perceived Usefulness -> Social Media Marketing) is 0.000 (P<0.000), which is less than 5% (0.05), we accept this hypothesis. The Sig value of 0.002 (P<0.002) for the H3 Facilitating conditions -> Social Media Marketing (SMM) hypothesis indicates a significant relationship between Facilitating Condition and SMM; thus, the hypothesis is accepted. Since the Sig value of the H4 Perceived ease of use -> Social Media Marketing (SMM) is 0.993 (P>0.993), which is greater than 5% or 0.05, the hypothesis is rejected. Given that the Sig value for H5 Social Media Marketing (SMM) -> Purchase Intention is 0.000 (P<0.000), which is less than 5% or 0.05, it is accepted.

5. Discussion

Some of the many factors that affect social media advertising are accessibility, affordability, appropriateness, scientific relevance, and simplicity. Social media can be an effective means of advertising for UMKM products, but only with a significant investment in the necessary supporting facilities and knowledge. From the results of this study, we can conclude that the condition of the physical location has minimal impact on the outcomes of social media advertisements. This is due to several factors, including a lack of resources (both financial and human) for social media structures, a lack of social media experts’ assets, a lack of training for staff members on social networking sites, and a lack of in-house training centers owned by SMEs to analyze social networks. The results agree with those reported by Venkatesh (2012) and (Chatterjee & Kar, 2020)

Spending money on social media marketing, especially on paid advertisements, can add up quickly. The company places a premium on its employees by providing ample opportunities for growth in both skill and experience. This study demonstrates that the cost of social media advertising is irrelevant. This is because brands that care deeply about purchase
intent aren’t yet using all of the channels at their disposal to their full potential. Most businesses have a tiny chance of success because they rely on the media to spread information about their products. Studies by (Wang & Kim, 2017),(Chatterjee & Kar, 2020), (Tan et al., 2009) and (Wang & Kim, 2017) contradict these results.

Whether or not a company uses social media as a promotional tool depends greatly on the nature of the company and the products it offers. Each product receives its own unique social media marketing campaign designed to increase customer interest in that product. Study results demonstrate a positive and statistically significant correlation between compatibility and ad performance on social media. According to the findings, companies and products are more likely to resonate with consumers when they employ digital marketing strategies aimed at influencing their purchasing decisions. Businesses will have an easier time connecting with their ideal customers via social media, and consumers will have access to an expanding selection of goods optimized for use on these sites. Today’s students can choose from a variety of social media systems, each with its own set of benefits and drawbacks, to meet their individual requirements for using these tools. Social media marketing is more successful when the analyst’s interpretation of user behavior is taken into account. Clearly, the more benefits there are to use social media for business reasons, the more individuals will use them, as evidenced by this effect. The majority of respondents also saw social media as a means to increase efficiency and a powerful promotional instrument. It has been hypothesized that using social media can help businesses manage their operations and increase customer satisfaction. Supporting previous research by (Wang & Kim, 2017) and (Chatterjee & Kar, 2020), the results of this study demonstrate that social media marketing is only effective if it can be easily implemented.

Today’s students, even if they are not particularly tech-savvy, must be able to make effective use of social media and the internet. The analysis of this study’s data lends credence to the theory that users are more likely to engage with social media marketing campaigns that they perceive as being easy to implement. This shows that the easier it is to use promotional tools on social media, the more people will use them. A user-friendly social media platform has a low learning curve, that makes it simple to find new customers, and allows current customers to quickly and easily request more of the same. In addition, the provided customer information makes social media advertising simple. The results of this study agree with those of several other recent studies (Henderson & Divett, 2003); (Chatterjee & Kar, 2020) The spread of an illness can be slowed down by limiting people’s opportunities for physical and social interaction, but these have been removed as a result of digitalization. Marketers who employ social media to spread the word about their products report higher sales as a result. Among the many options for increasing revenue is expanding your business’s online presence through Facebook and Instagram sales. It is expected that increased sales will result from using social media as a promotional tool. A higher level of consumer intent to purchase was observed after participants engaged with firms on social media. Increased use of digital
technologies for product purchases can have positive effects on many aspects of businesses, including revenue, client satisfaction, efficiency, and creativity. Entrepreneurs rely on it for a wide range of tasks, including advertising their wares, communicating with customers, and researching the market.

5.1 Conclusion

According to the strategy used by (Arrigo, 2018), this study provides a range of perspectives on social media and digital marketing from invited experts. Experts’ views cover both broad overviews of the field and analysis of narrower topics like the impact of digital marketing on consumers’ sense of ethics and morality, as well as their vulnerability to the perils of social anxiety and feelings of academic inferiority. The many themes and central topics are discussed, along with the challenges, opportunities, and future studies agenda from multiple perspectives. The expert opinions within the overarching themes of environment, marketing strategies, company and outcomes explain many critical elements and current debates within the broader social and digital marketing literature. Many ongoing debates in academic and practitioner-focused research are reflected in the areas of expertise covered by these different points of view. On the other hand, those who do not engage in social comparison are often more open to new information, ideas, and perspectives from others but spend more time focusing on and building their mental models. Anjala S. Krishen’s article referenced eWOM in our capability to comprehend and interact with numerous cultural contexts, addressing several human-centered concerns and cultural facets of digital marketing. In this view, credible knowledge can be built through new mechanisms, facilitating informed data-driven decisions. Jenny Rowley looks at the research side of social media marketing. This point of view outlines the most critical factors related to consumer and user behavior studies within businesses.

Research findings allowed for several different inferences to be drawn. One example is the significant positive impact that social media and influencers had on perceived usefulness and ease of use, subjective standards, and enabling conditions. In contrast to the impact on consumers’ sense of identity, another finding showed that social media advertising (SMM) positively and significantly affected consumers’ propensity to make a purchase. Further studies found that influencers did not directly impact consumers’ intent to buy, but did have an indirect, positive effect on consumers’ perception of price. Ultimately, the optimal positioning was for high-end goods that came in various options, were packaged attractively, and did not break the bank.

5.2 Implication

By shedding light on the technological, managerial, and social and economic variables that influence adoption, this study adds theoretical depth to the expanding body of
literature on SMM. Many technological factors were found to be influential, but the perceived benefit and enabling situations stood out. Support from management is the only organizational variable influencing the adoption of social media marketing. Any additional considerations, such as the price tag or how simple it seems to implement, are negligible. Results for intent to purchase can be explained by the low cost and low difficulty of social media advertising. It is expected that the results of the research will be useful to policymakers in practice. Policymakers are able to promote social media marketing among purchases if they have access to data on the factors and findings that motivate consumers’ intent to make purchases via social media.

The economy of the country will grow as a direct result of implementing this winning strategy. The findings will also inform executives on how to implement social media marketing effectively. Last but not the least, this study contributes to the literature because it can identify nonlinear links between the constructs, something no previous studies have been able to do because they all used structural equation modeling (SEM). This study improves upon prior efforts by employing a deep network, a tool of artificial intelligence, to discover linear and nonlinear associations between the variables. When combined with PLS-SEM, the results from ANN are more robust, and the exceptional precision of ANN is displayed.

6. Limitations and Future Studies

Future studies that are similar to this one might benefit from taking into account a few limitations. As a cross-sectional study, it is limited in its ability to capture the dynamic shifts in internet marketing’s acceptance as the scope of impacting technological, managerial, and environmental factors continues to expand. Therefore, the proposed relationships need to be investigated over a longer period of time to yield credible results. Second, the data was compiled using a relatively small number of citizens of Karachi. Potential scientists may need more samples in order to extrapolate the results. However, there may be regional or national differences in the factors that drive the expansion of social media advertising. In addition to the nine criteria explored in this study—the bandwagon effect, political ties, social ties, conversational abilities, diverse knowledge, customer intent to purchase, and trust—there may be other precursors. Using only a handful of variables could be seen as limiting. When future studies take into account more variables, the same theory can be examined and verified in different countries.

Additional study is needed to examine the impact of technological, managerial, and environmental variables on social media marketing for large businesses. The factors that impact the use of SMM were the focus of this research, rather than its adoption and impact on shoppers’ intentions to buy. Researchers will now be able to more thoroughly examine how social media advertising influences consumers’ intentions to make a purchase. This may lead to unexpected findings. Finally, it is possible that the differences between concept and
empirical findings can be explained by the sample’s distinctiveness, which is not confined to the Karachiites’ setting. As a result, researchers in the future will need a more representative cross-section of the population to effectively apply theory and generate conclusions. This will help researchers in the future generalize their findings.

6.1 **Recommendations**

The findings suggested several directions for future studies. The initial goal was to put a name with a face to gain insight into the personalities of influencer marketing who might impact the product’s sales. Research could be expanded to include more studies of social bloggers with perceived value and facilitating conditions, as purchase intent is a part of social media marketing. In order to improve the quality of the findings, it was also suggested that additional studies be conducted. Future research should investigate the requirements and motivations that may account for the preferences of social media users from different cultural backgrounds or countries. On top of that, modern social networking sites like Facebook and Twitter have distinct features that set them apart from older networks. There needs to be more attention paid to this change in the future. The impact of SMMAs on user habits and expectations was the primary focus of this research. More than physical storefronts are needed for product promotion in the modern era. When AR becomes more widespread, it will serve a similar purpose. Marketers and other stakeholders will continuously introduce new forms of virtual content into consumers’ daily lives. Businesses must change to keep up with the times, and Augmented Reality (AR) will likely become as important in most sectors as online channels are today. Differentiating between the three factors that can affect the persuasiveness and influence of communication—the sender, the recipient, the text, the medium, and the context—is necessary if we provide some guidance for a compelling study (Wathen & Burkell, 2019).

According to studies, consumers care more about the reliability of the message than the reliability of the origin (Filieri, 2016), which is especially true for more complex choices. To better understand whenever the text and source are much more crucial in evaluating review trustworthiness, researchers in the future must consider the quality of the information as a partial moderator or facilitator of the impacts of reference group dimensions in eWOM circumstances also with high versus low review to assess. This study’s findings suggest that digital marketing is a powerful tool for enhancing the efficiency of MSMEs. How different entrepreneurs’ cultural preferences affect their adoption practices needs to be clarified. The extent to which this would change the outcome is unknown. The onus is now on researchers of the future to investigate this concern. Seven experts were consulted for their opinions on the readability of the questions in this study. However, a more expert opinion could bring in even more factors relevant to this context, particularly to investigate the nature of the impact. Nonetheless, that is not the case with the current investigation. Future researchers might pick this up to build on the previous work.
Additionally, more research is required to evaluate the effects of technological, organizational, and environmental factors on social media advertising at large corporations. Furthermore, the adaptation of digital marketing and its effect on the performance of SMEs were not evaluated in this study; only the factors that led to its use were studied. Future researchers will be able to examine how social media marketing affects the success of small and medium-sized enterprises (SMEs). Those results could lead to surprising discoveries. In order to generalize the results, potential researchers may need a larger sample size. However, the factors that influence the spread of digital marketing may vary from one nation to the next. Furthermore, there may be extra forerunners apart from the nine criteria investigated in this research, including group mentality, political ties, social connections, various studying, and customer trust. For this reason, using only a few variables is a restriction. The same theory can be tested and validated in different countries if future studies include additional factors.

References


Fornell, C. & Larcker, D. F. 1981. Structural equation models with unobservable variables and measurement error: algebra and statistics. Sage publications sage ca: los angeles, ca.


Survey Questionnaire

Dear Respondent,

This survey is conducted for writing a report on our subject named “Business Research” as part of our PhD. This survey aims to identify the Framework indicating the significance of Demographic and Cultural Variables. Please complete the following table. Any information obtained with this study that can be identified with you will remain confidential.

1) Gender
   • Male
   • Female

2) Age
   • 18-25 years
   • 25-35 years
   • 35-45 years

3) Qualification
   • Post Graduate
   • Graduate
   • M-Phil
   • PhD

4) Marital Status
   • Single
   • Married
   • Divorced

5) Perceived Usefulness.
   • The online system makes it easy to find the content required.
   • Using E-learning improves my performance.
   • The online system provides valuable content.

6) Facilitating Conditions
   • Central support is available to help with technical problems
   • The device is not compatible with another device I use.
   • I know necessary to use the device.

7) Perceived Ease of Use
   • My interaction with E-learning requires little effort.
   • Using online shopping would make it easier for me to conduct a transaction.
   • Using online shopping would improve the speed with which I could conduct myself.
8) **Perceived Cost**
   - The money invested in training employees to use social media marketing would be high.
   - The cost of maintaining social media marketing would be very high for our enterprises.
   - The costs of adopting social media marketing would be greater than the expected benefits.

9) **Social Media Marketing**
   - Our social content aligns with the interest and needs of our target audience.
   - It is beneficial for businesses to use social media as a communication channel.
   - Social media usage impacts the consumer behavior of respondents.

10) **Purchase intention**
    - I recommend others to use online stores.
    - I am happy to use my credit card to purchase from an online vendor through Facebook.
    - References

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