MARKETING | RESEARCH ARTICLE

Pandemic effects on social media marketing behaviors in India

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Abstract: This research examined the effects of the COVID-19 pandemic on social media marketing in India. There is little research on the impact of a pandemic on consumer behaviors. To address this gap, this exploratory study surveyed Indian consumers’ social media behaviors. Observations from 313 Indian consumers were collected to compare how their social media behaviors for consumer decision-making have changed since the COVID-19 pandemic started. A Wilcoxon signed-rank test was used to test mean differences in social media behaviors prior to and after the COVID-19 pandemic began. The findings demonstrated increased usage of social media as a tool for consumer decision-making. With the global reach of the COVID-19 pandemic, the implications of a growing prominence of social media in consumer-decision making are likely relevant to most nations. Recommendations for the use of social media as a marketing tool are provided.

Subjects: Consumer Psychology; Asian Business; Advertising; Consumer Behaviour; Internet / Digital Marketing / e-Marketing; Marketing Communications; Retail Marketing; Health & Society; Health Conditions

Keywords: COVID-19; India social media marketing; consumer decision-making

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PUBLIC INTEREST STATEMENT

Social media, which allows consumers to virtually interact with other consumers and businesses, is expanding in terms of the number of platforms available, number of users, and degree of user activity (Thorta, 2018; Singla & Arora, 2015). As such, social media affects consumers’ decision-making behaviors. In addition, the COVID-19 pandemic has underscored the benefits of online consumer behaviors. As a catalyst for behavioral change, the impact of the COVID-19 pandemic on consumers’ social media behaviors could change business operations. Consumer behaviors are influenced by economics, psychology, health, and marketing constructs and, therefore, studied and discussed across multiple disciplines. The primary focus of the current study is from the discipline of marketing. The India economy and its consumers are the focus of this study because India is emerging as one of the fastest growing consumer spending economies in the world.
1. Introduction
In a previous study, the authors examined how the COVID-19 pandemic increased United States (U.S.) consumers’ social media marketing behaviors with regards to identifying products, collecting product information, comparing products (i.e., shopping), and purchasing products (Mason et al., 2021). The current study, replicates the previous study, however it examines consumer behaviors in India to determine whether the COVID-19 pandemic has similar effects in different cultures.

India has one of the largest population in the world and it has developed considerable digital infrastructure in recent years. Therefore, India is emerging into a significant digital communications market. With 1.2 billion telecom subscribers, India is the second largest telecom market and has the third largest Internet market with approximately 500 million users (Sarkar & Sarkar, 2019). Furthermore, with millions of Facebook and Twitter users, social media can provide Indian businesses with a digital medium for segmented consumer communications. As such, India provides significant opportunity for digital marketing growth.

A potential catalyst for increased social media usage in India and throughout the world is the current COVID-19 health care crisis. The COVID-19 pandemic was the defining event for the world in 2020, causing nearly 300,000 deaths in India as of May 20, 2021 (India Ministry of Health and Family Welfare, 2021). In addition, COVID-19 has caused tremendous economic havoc worldwide. For example, COVID-19 has been associated with significant GDP declines in the U.S. (Mason, 2020) and led to increased unemployment (Mitchell, 2020). In like manner, the COVID-19 pandemic has led to a deep recession as India’s GDP contracted by approximately 24 percent from April to June of 2020 (Slater, 2020).

India utilized business lockdowns, social distancing, and personal quarantines in an attempt to slow the spread of COVID-19. The personal contact restrictions along with emerging technologies may alter consumer behaviors (Barwitz & Maas, 2018; Edelman & Singer, 2015). Indeed, Mason et al. (2021) recently observed an increase in the use of social media in U.S. consumer behaviors. Therefore, the purpose of this exploratory research was to examine whether COVID-19 has, likewise, impacted Indian consumers’ social media consumer behaviors. More specifically, it needs to be determined whether COVID-19 will shift in consumers’ product perceptions and their behaviors associated with shopping, product acquisition, and post-purchase behaviors.

2. Literature review
Laato et al. (2020) summarized the literature on how pandemics have influenced human behavior and found that research has focused on how pandemics impact preventive health behaviors, but gave only slight attention to a pandemic’s impact on consumer behavior. Examining the COVID-19 pandemic relative to consumer behaviors can provide insights during a situation where consumers are uncertain as to how to behave. In a recent study, Mason et al. (2020) examined shifts in U.S. consumers’ decision-making behaviors since the start of the COVID-19 pandemic and found an increase in consumers’ use of social media for identifying product needs, shopping, and purchasing behaviors since the start of the pandemic.

S-O-R Theory (Mehrabian & Russell, 1974) and the Consumer Decision-Making Model (Nicosia, 1982) were frameworks used in this investigation. The S-O-R Theory, which is based upon environmental psychology, provided an explanation for how external stimuli can change consumer behavior (Kumar et al., 2020; Xu et al., 2014). More specifically, S-O-R Theory states that an external stimulus (S) affects an organism (O), which thusly leads to a behavioral response (R) for the organism (Mehrabian & Russell, 1974). Using S-O-R Theory, Kumar et al. (2020) explained that the model is useful for explaining how external stimuli (S) can impact consumers’ (O) cognitive and affective processes, thus, affecting consumers’ behaviors (R). For example, news about the COVID-19 pandemic could serve as an external stimulus, which could alter consumers’ perceptions, leading to changes in their consumer behaviors.
Nicosia’s Consumer Decision-Making Model provided a useful framework to investigate the types of consumer behaviors that are impacted by the COVID-19 pandemic. More specifically, Nicosia’s model identified five stages, or behaviors, related to consumer decision-making which consists of behaviors associated with identification of product needs, product information searches, comparisons of alternative product options, purchase decisions, and post-purchase behaviors (Nicosia, 1982).

2.1. Growing importance of social media marketing
Social media usage, social media usage is on the rise worldwide, including in India (Thota, 2018). Uses and Gratification Theory helps to explain why users are attracted to social media. For example, Malik et al. (2016) used this theory to examine benefits that Facebook users derived from social media activity, and they found that users derived gratification in six different ways. More specifically, they found that social media users get gratification in the form of affection, attention seeking, habit, information sharing, disclosure, and social influence (Malik et al., 2016).

Additionally, Agarwal and Karahanna (2000) argued that social media users can be attracted to social media through a benefit labelled as cognitive absorption (CA). For example, social media can provide temporal dissociation and diversion from the passing of time, thus lowering boredom. Also, according to Agarwal and Karahanna (2000) users can immerse themselves into social media and escape unpleasant realities in life and often feel empowered through a sense of control. Social media has been found to empower because it provides consumers with control over product options and brand comparisons marketing information (Yuksel et al., 2016).

Evidence indicates that overall use of social media has expanded significantly (Tam & Jeong-Nam, 2019). Therefore, it is intuitive to assume that the use of social media for consumer related behaviors has likely increased by the emergence of the COVID-19 pandemic as consumers’ fears of physical contact with others has increased (Knowles et al., 2020). Also, Root (2020) argues that social distancing policies have increased a businesses’ need to communicate with consumers indirectly. Indeed, Mason et al. (2020) found evidence that consumer’s use of social media use has grown for identifying product needs in the U.S since the COVID-19 pandemic began. Specifically, in their study, Mason et al. (2020) conducted a critical analysis of published findings across healthcare and marketing literature to examine macro changes in US consumer decision-making behaviors. They collected survey data from consumers and compared behaviors pre- and post-declaration of the pandemic and found that the COVID-19 pandemic has reduced consumers desire for personal contact with others when shopping and increased reliance on indirect digital communications.

As mentioned earlier, Laato et al. (2020) argued that research is needed to understand how pandemics, such as COVID-19, impact consumer behaviors. Therefore, this study replicated a previous study by Mason et al. (2021) to explored the impact of COVID-19 on consumer behavior within the framework of the Consumer Decision-Making Model described earlier. In their study, Mason et al. (2021) conducted survey research in the U.S. and found that consumers have increased their use of social media for the consumer behaviors related to product needs, product information searches, product comparisons (evaluations), product purchases as well as their post-purchase satisfaction levels. These findings along with those in Mason et al. (2020), provide the basis for the current study of Indian consumers social media marketing behaviors. The following sections provide a discussion of consumers’ use of social media as it relates to the framework of the Consumer Decision-Making Model (Nicosia, 1982).

2.2. Identifying product needs and social media
In stage one of the consumer decision-making process, consumers recognize the need for a product, which occurs when they perceive a difference between their actual and desired states of being (Bruner, 1987). According to Thota (2018) a business can activate consumers’ product needs with social media by stimulating brand awareness with conversations centered on positive aspects of a product. Jashari and Rustemi (2017) have claimed that social media photos, videos,
and comments are stimuli that increased recognition of new personal needs. For example, businesses can post favorable brand content and generate increased excitement for their brands by boosting their social media posts. In addition, businesses can highlight posts by satisfied consumers or social media influencers to create influencing stimuli. Business can also use social media influencers to increase product awareness by contracting elite influencers (e.g., celebrities) to post positive product or brand information (Wertz, 2019).

As previously mentioned, recent findings of U.S. consumers’ social media behaviors since the COVID-19 pandemic started, indicated they have increased use of social media to identify product needs (Mason et al., 2020; Mason et al., 2021). It is, therefore, postulated that Indian consumer product need identification behaviors have changed as well. Specifically, the following hypothesis was tested.

**Hypothesis 1:** Indian consumers’ usage of social media to identify product needs has increased since the declaration of the COVID-19 pandemic.

### 2.3. Product information searches and social media

After a consumer realizes a need, the consumer seeks information on how to satisfy the perceived need. At this stage, consumers seek information to consider various characteristics of alternative products or brands. Technological improvements and cultural changes have resulted in the increased use of social media as a medium of communication and acquiring all sorts of information (Tam & Jeong-Nam, 2019). In addition, COVID-19 which led to reduced physical contact with others, has increased consumers use of social media to gather needed product information as shown in recent U.S. studies (Mason et al., 2020; Mason et al., 2021). Therefore, with respect to Indian consumers, the following hypothesis was tested.

**Hypothesis 2:** Indian consumers’ usage of social media in shopping to acquire product comparison information has increased since the declaration of the COVID-19 pandemic.

### 2.4. Evaluating products and social media

Prior to making a purchase decision, consumers reduce choice risk by evaluating product options (Bettman, 1979; Howard & Sheth, 1972; Jacoby, 1975; Phillips et al., 1995). To evaluate considered products, consumers often rely on decision “rules of thumb,” or heuristics (Srinivasan, 1987; Wright, 1972). Using heuristics, consumers will form perceptions based upon generalized product cues such as price, fashion, or opinion leader endorsements. Social media allows marketers the opportunity to interact with customers in two-way conversations and push the appropriate cue that can influence a given consumer. For example, if a consumer posts a concern about a given product on a businesses’ social media platform(s), then the business can identify the product attribute heuristic cue that is important to that consumer and can supply positive information that can resolve the consumer’s concern(s).

Also, consumers reduce perceived risk by seeking choice validation from opinion leaders such as perceived experts, friends, and family (Delener, 1990; Voyer et al., 2015). While the COVID-19 pandemic has limited consumers’ abilities to interact directly with their respective influencers, technological advances have increased consumers’ abilities to share product information. As such, social media can help consumers make more informed judgments about the benefits and risks associated with a given product. Therefore, it seems likely that consumers may increase their use of social media to reduce the perceived risk of a given purchase decision. This expectation has been shown among U.S. consumers (Mason et al., 2020; Mason et al., 2021) which led to the following hypothesis about Indian consumers.
Hypothesis 3: Indian consumers’ usage of social media to evaluate the perceived risks of products has increased since the declaration of the COVID-19 pandemic.

2.5. Purchase decisions and social media
Although social media is generally considered a tool for building product and brand awareness, some platforms allow for the making of a purchase. While a previous study found that social media platforms only accounted for 1.8 percent of 2015 online holiday purchases (Halzack, 2016), it seems likely that, with continued technology advances, social media platforms will increase purchase capabilities. Mason et al. (2021) showed that U.S. consumers are increasingly using social media as a tool for making product purchases. Given that Indian consumers, similar to their U.S. counterparts, embrace technology tools and have been impacted by COVID-19, it is expected that Indian consumers have, likewise, increased their use of social media for making product purchases since the pandemic began.

Hypothesis 4: Indian consumers’ usage of social media to purchase products has increased since the declaration of the COVID-19 pandemic.

2.6. Post-purchase behaviors and social media
The final consumer decision-making model stage occurs after the purchase has been made and the consumer formulates purchase emotions of satisfaction or dissatisfaction. Consumer satisfaction is necessary for building consumer relationships and loyalty that result in repeat purchases (Shemwell et al., 1998; Spreng et al., 1996). Across three studies, Duan and Dholakia (2017) showed that consumer postings of their purchases on social media is an increasingly common conspicuous consumption behavior that enhances consumers’ emotional happiness of themselves and their image with others by making even privately consumed products into publicly consumed goods. More specifically, social media allows consumers to post purchases, thus, communicating their consumption behaviors in a digital form that expands the traditional “word of mouth” form. In addition, social media provides the consumer with more control of the narrative associated with purchase and consumption behaviors because it offers asynchronous, selective self-presentation communication (Barasch & Berger, 2014; Duan & Dholakia, 2017).

Athwal et al. (2019) found that social media marketing can support consumers’ cognitive and emotional needs. More specifically, social media marketing has been found to satisfy consumers’ cognitive needs by providing persuasive arguments to support a purchase decision and has been used to enhance consumers’ emotional needs by providing entertainment with humor, joy, and excitement (Athwal et al., 2019). In other words, social media is a growing vehicle for satisfying consumers’ needs to express themselves. Since the COVID pandemic has reduced direct personal interactions, it seems likely that consumers would increase their shared experiences through a medium such as social media. Indeed, Mason et al. (2021) found evidence that, since the beginning of the pandemic, U.S. consumers have increased their use of social media to express purchase satisfaction and dissatisfaction. However, their findings lacked statistical significance (p = 0.26), which was ascribed to a measurement error. Therefore, the following was postulated for Indian consumers.

Hypothesis 5: Indian consumers’ usage of social media to express product purchase satisfaction or dissatisfaction has increased since the declaration of the COVID-19 pandemic.

3. Methods
In this study, consumers in India constituted the defined population and served as the sampling unit. The dependent variables were five consumer decision-making social media behaviors. Dependent variables were assessed based upon the degree to which respondents stated that
they use social media to (1) identify product needs; (2) conduct product information searches; (3) compare product alternatives; (4) purchase products, and; (5) express post-purchase satisfaction levels. The COVID-19 pandemic served as the independent variable and it was measured as the time periods before and after news that India was experiencing the COVID-19 pandemic.

A questionnaire created by Mason et al. (2021) was used to examine social media behaviors and was administered as a survey to gather social media behaviors in India. Respondents completed the survey by rating statements about their consumer decision-making social media use. For example, respondents were asked to “Please rate the degree to which you used social media to identify needed products before the COVID-19 pandemic” and they were also asked to “Please rate the degree to which you currently use social media to identify needed products.” A seven-point scale was used where one indicated low social media usage and seven indicated high usage. Therefore, the questionnaire consisted of two items which were used to assess each of the five dependent variables (i.e., consumers’ social media behaviors), where one item measured behaviors prior to the pandemic and the other measured current behaviors. In total, the questionnaire had ten dependent variable items. Also, respondents were asked about their social media platform preferences and demographic characteristics. A copy of the questionnaire is provided in the Appendix.

The survey questionnaire was administered to 313 consumers in India through a service provided by Amazon Mechanical Turk (MTurk), which has been demonstrated to provide high-quality data, and it helps researchers to acquire dependable participants (Buhrmester et al., 2011). The sampling method employed was a convenience sample. MTurk identified the appropriate subjects for the study and respondents independently participated in the survey. Therefore, typical for survey data, the respondents were not necessarily a simple random sample of the entire population of interest. In other words, the diversity of the entire population of Indian consumers is potentially not represented in the surveyed participants. For this reason, demographic information of the sample is provided in the results section to describe the respondents.

Multiple statistical methods were used to analyze the data. The primary dependent factors of interest, identifying changes in various aspects of social media use before and after the COVID-19 pandemic, were measured on the same individuals, resulting in a paired (or blocked) experimental design. Variances were examined and could not be shown to be significantly different, based upon Levene’s test for homogeneity of variance, which showed probability greater than 0.05 for all dependent variables. The participant responses are Likert scale data, and thus are not normally distributed. While there is support to use either parametric or non-parametric procedures for Likert scale data (Winter & Dodou, 2010), the Wilcoxon signed-rank test, appropriate for paired data, was used in place of an ANOVA with blocking factor. The assumptions of independence, paired samples, and ordinal data were met for the Wilcoxon signed-rank tests. Note, ANOVA with a blocking factor (the respondent served as the ANOVA blocking factor) and an ordinal quasi-symmetry loglinear model were also considered for analyzing the data. All three methods of analysis resulted in the same conclusions for each of the hypotheses tested. The analysis reported was selected by “rule of parsimony”, that is, when more than one analysis is appropriate and effective, pick the analysis that is simplest. Therefore, we choose to report the results with the standard nonparametric technique for paired data, specifically the Wilcoxon signed rank test.

4. Results
The sample of Indian consumers had a mean age of 31 years. Respondents’ education levels ranged from high school graduate to advanced degrees: with 48% having earned a master’s degree. The ethnic makeup consisted primarily of Asians (90.1%), followed by Caucasian (5%) and African (3%). Therefore, the sampled subjects provided a fair representation of India’s population.
The Wilcoxon signed rank test identified significant changes in various aspects of social media use before and after the COVID-19 pandemic. Table 1, presents the Wilcoxon signed-rank results for respondents' use of social media to identify product needs. The computed signed rank statistic (2328.5) was significant; which indicated a difference in the mean use of social media after declaration of the COVID-19 pandemic. More specifically, the respondents' social media usage increased significantly (p = 0.0354) from 5.46 to 5.62. Thus, the findings supported hypothesis 1 and show that consumers' usage of social media for identifying product needs increased after the pandemic began.

Indians' social media shopping activity has also increased. The Wilcoxon signed-rank results for mean differences in shopping behavior differed significantly after the start of the COVID-19 pandemic. As shown in Table 2, the computed signed rank statistic (4219, p < 0.0001) was highly significant, as stated in hypothesis 2. The mean for Indians' use of social media to compare products (i.e., shop) increased from 5.36 before to 5.65 after the pandemic began. Thus, the results demonstrated that the use of social media for shopping behaviors has increased in India.

Table 3 illustrates that Indian consumers have increased their use of social media to gain information about the risk of a given product considered. The computed signed rank statistic (4322.5, p < 0.0001) was highly significant, indicating a mean difference for this behavior across the pre- and post-pandemic time periods. Specifically, mean use of social media to evaluate the risk associated with various products risks increased from 5.19 before the pandemic to 5.53 currently. The results, therefore, supported hypothesis 3, demonstrating that Indians have increased their use of social media to gather information about product risks.

The Wilcoxon signed-rank results for Indians' mean differences in the use of social media to make product purchases, are provided in Table 4. The computed signed rank statistic (3413.5, p = 0.0016) is statistically significant, thus, support for hypothesis 4 was observed. That is, Indian consumers' use of social media to make product purchases has significantly increased since the start of the COVID-19 pandemic.

The Wilcoxon signed-rank results for Indian consumers' usage of social media to express post-purchase satisfaction are provided in Table 5. The computed signed rank statistic (1962.5,
Table 3. Wilcoxon Signed-Rank - Use Social Media for Product Risk Evaluation

|                  | P-Value | Mean pre-COVID-19 Pandemic | Mean post-declaration of COVID-19 Pandemic |
|------------------|---------|----------------------------|------------------------------------------|
| COVID Pandemic   | <0.0001* | 5.19                      | 5.53                                    |

*significant difference

Table 4. Wilcoxon Signed-Rank - Use Social Media for Product Purchases

|                  | P-Value | Mean pre-COVID-19 Pandemic | Mean post-declaration of COVID-19 Pandemic |
|------------------|---------|----------------------------|------------------------------------------|
| COVID Pandemic   | 0.0016** | 5.21                      | 5.47                                    |

*significant difference

Table 5. Wilcoxon Signed-Rank - Use Social Media to Share Product Satisfaction

|                  | P-Value  | Mean pre-COVID-19 Pandemic | Mean post-declaration of COVID-19 Pandemic |
|------------------|----------|----------------------------|------------------------------------------|
| COVID Pandemic   | 0.0679*  | 5.20                      | 5.33                                    |

*marginally significant at 0.10 alpha

Table 6. Social Media Platform Preference Before and After the Start of COVID-19

| Preferred Platform | India Pre-Pandemic | India Post-Pandemic |
|--------------------|--------------------|---------------------|
| Facebook           | 46%                | 47%                 |
| Instagram          | 17%                | 21%                 |
| Snapchat           | 2%                 | 1%                  |
| TikTok             | 4%                 | 2%                  |
| Twitter            | 2%                 | 4%                  |
| YouTube            | 27%                | 22%                 |
| Other              | 3%                 | 3%                  |
| Sample size        | 313                | 313                 |

p = 0.0679) indicates marginal significance in mean differences for consumers’ use of social media for expressing post-purchase satisfaction or dissatisfaction. The mean for this behavior increased from 5.20 to 5.33, after the COVID-19 pandemic began. Therefore, the results provided evidence and marginal support for hypotheses 5.

In addition to testing consumer's use of social media for consumer decision-making behaviors, we collected data on Indian consumers' preferred social media platform pre and post- the start of the COVID-19 pandemic. Table 6 shows Indian consumers' social media platform preference before and after the pandemic. While there are no significant changes in platform preferences, there was a slight increase in the use Instagram and a slight decrease in the use of YouTube.

5. Discussion
The results were consistent with recent social media marketing behavior findings in the U.S. (Mason et al., 2021) in that they demonstrated an increase in the use of social media consumer
behaviors in India. Consistent with S-O-R Theory, consumers appear to have been influenced by the COVID-19 pandemic (external stimuli) to increased reliance on social media for their consumer decision-making behaviors. With the growing importance of social media, effective application of social media should be a part of any Asian business strategy.

The findings supported hypothesis 1 which stated that consumers in India are increasingly utilizing social media to identify their product needs. Businesses need to engage their consumers regularly and highlight their products’ positive attributes and show how their product(s) meet consumer needs. In addition, businesses should encourage their social media followers to share how their products effectively resolve consumer needs.

The findings also supported hypotheses 2–4, demonstrating that consumers have increased their use of social media to compare product options, evaluate product risks, and purchase products, respectively. Businesses can establish impactful social media communications with consumers by using social media data analytics to identify consumer interests. Then, based upon the consumer’s interest, the business can stimulate buzz and excitement to generate consumers’ product needs with tweets, videos, and newsworthy product events to the consumer’s various social media platforms.

Consumers’ product involvement (e.g., perception of product importance) moderates how they process new information. In low involvement situations, consumers primarily rely on cues as opposed to detailed product characteristic information (Cacioppo et al., 1986). For businesses that market to low involved consumers, the use of cues in their messaging is vital. For example, cues such as colors and images are salient factors for attracting attention among involved consumers.

When confronted with new product information, highly involved consumers are likely to engage in a detailed analysis of the information (Sher & Lee, 2009). For these consumers, the key to persuasion is to present high-quality and detailed information presented in marketing communications to increases consumer engagement (Liu & Arnett, 2000). Also, consumer engagement can be accomplished by increasing the number of touchpoints with consumers as well as increased frequency of interactions (Lemon & Verhoef, 2016).

Businesses can also build product value by gathering and posting positive feedback from satisfied consumers. For example, positive consumer remarks can be underscored by hitting “like” on favorable opinion leader posts and by sharing positive comments/reviews. Sharing satisfied consumers’ reviews, tweets, and likes can also enhance a business’ brand(s). For example, sharing positive comments or videos from an influential opinion leader can be used to generate brand awareness, interest, and even purchases. Another suggestion for building brand value is for businesses to continually develop compelling and fresh brand content that provides entertainment, enjoyment, and social enhancement.

Social media can also be used by a business to promote its corporate social responsibility. That is, businesses can build positive consumer relationships by encouraging their consumers to engage in positive offline brand related activities and then posting social media content about such activities. For example, an outdoor equipment retailer might encourage consumers to use their products outdoors with loved ones all while participating in social distancing. A contest could then be held to award the best outdoor brand related video posted by consumers. Such a promotional event could lead to positive relationships and improved brand image because photo sharing has been shown to increase affection between participants (Dhir et al., 2017; Eftekhar et al., 2014).

While social media behaviors have similarities across cultures, differences may exist between the social media platforms used in different countries. Therefore, the social media platform and messaging strategies needed for business success in India may differ from those in other areas,
therefore, it is critical to determine what social media platform(s) to use to most effectively reach the Indian consumer. With a massive population and increased internet access, new social media platforms will likely continue to expand in users. As such, it is recommended that Indian businesses continuously identify and include Indian consumer preferred platforms in their social media marketing strategy.

6. Limitations
The data collected provides strong preliminary evidence that the COVID-19 pandemic has impacted consumer social media behaviors in India. However, the data observed are self-reported behaviors. Also, evidence of the regions within India which are represented in the sample was not gathered. Hence, regional differences within India social media consumer behaviors may not be reflected.

While face validity of the results seems evident, empirical validity has not been determined. Also, data observed was gathered at one time and yet required subject responses for two time periods. More specifically, respondents had to reflect on social media behaviors prior to the pandemic and also provide current behaviors. Nevertheless, since the data was gathered early after declaration of the COVID-19 pandemic, the respondents’ perceptions should provide a fairly accurate assessment of their behaviors prior to and during the pandemic. Although the observations may lack strong robustness, as an exploratory study, the current results clearly demonstrated that consumers’ social media behaviors have shifted since the pandemic was declared and, therefore, highlight the need for more research.

7. Future research recommendations
Research is needed to assess the actual social media activities of consumers. To determine whether COVID-19 has created systemic changes in social media behaviors, longitudinal studies are needed. Studies should also be undertaken to determine the impact of COVID-19 on consumer behaviors in lesser developed economies. At a micro or organizational level, studies are needed to determine how various target segments for a given business might be influenced. Social media marketing strategy could also benefit from examining the moderating impacts of various consumer segments (e.g., income, gender, education, age, lifestyles, etc.) on consumers’ decision-making social media habits. Furthermore, it would be meaningful to explore whether a given social media platform is associated with positive or negative consumer behaviors related to shopping, purchase, and post-purchase satisfaction levels. Also, longitudinal studies are needed to determine if the COVID-19 pandemic induced changes in social media consumer behaviors are sustained.

8. Conclusions
The growing influence of social media to influence consumer behaviors is evident. As such, social media as a marketing tool is becoming increasingly important, especially after the COVID-19 pandemic. The results highlight the impact that social media can have on many Indian consumers’ decision-making behaviors. Effective use of social media is recommended for business marketing strategies.

Social media offers a valuable tool to enhance a business’ brand(s) through increased brand awareness and preference. This study examined Indian consumers because of the size and growth trends in India relative to other economies in the world. Since the start of the COVID-19 pandemic, consumers have increased online consumer behavior activities. Furthermore, consumers’ social media use will likely increase, not only in India, but also globally. For Indian businesses that operate in multiple countries, cultural differences should be considered in their social media strategies to account for social media platform preferences and practices in a given country.
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Prior to collecting data, the authors obtained IRB Committee approval from Arkansas Tech University. The research was exempted. Approval number is: Narcum_062920.

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References
Agarwal, R., & Karahanna, E. (2000). Time flies when you’re having fun: Cognitive absorption and beliefs about information technology usage. MIS Quarterly, 24(4), 665–694. https://doi.org/10.2307/3250951
Athwal, N., Istanbulbulluglu, D., & McCormack, S. (2019). The allure of luxury brands’ social media activities: A uses and gratifications perspective. Information Technology & People, 32(3), 603–626. https://doi.org/10.1108/ITP-01-2018-0017
Barasch, A., & Berger, J. (2014). Broadcasting and narrowcasting: How audience size affects what people share. Journal of Marketing Research, 51(3), 286–299. https://doi.org/10.1509/jmr.13.0238
Barwitz, N., & Moas, P. (2018). Understanding the omnichannel customer journey: Determinants of interaction choice. Journal of Interactive Advertising, 18(1), 116–133. https://doi.org/10.1016/j.jmar.2018.02.001
Bettman, J. (1979). An information processing theory of consumer choice. Addison-Wesley.

Bruner, G. (1987). The effect of problem recognition style on information seeking. Journal of the Academy of Marketing Science, 15(4), 33–41. https://doi.org/10.1007/BF02723288
Buhrmester, M., Kwang, T., & Gosling, S. (2011). Amazon’s mechanical Turk: A new source of inexpensive, yet high-quality, data? Perspectives on Psychological Science, 6(6), 13–15. https://doi.org/10.1177/2045491110393980
Cacioppo, J., Petty, R., Koo, C., & Rodriguez, R. (1986). Central and peripheral routes to persuasion: An individual difference perspective. Journal of Personality and Social Psychology, 51(5), 1032–1043. https://doi.org/10.1037/0022-3514.51.5.1032
Delene, N. (1990). The effects of religious factors on perceived risk in durable goods purchase decisions. Journal of Consumer Marketing, 7(3), 27–39. https://doi.org/10.1108/EUM00000000028580
Dhir, A., Chen, G., & Chen, S. (2017). Why do we tag photographs on Facebook? Proposing a new gratifications scale. New Media and Society, 19(4), 502–521. https://doi.org/10.1177/1461444815611062
Duan, J., & Dholakia, R. (2017). Posting purchases on social media increases happiness: The mediating roles of purchases’ impact on self and interpersonal relationships. Journal of Consumer Marketing, 34(5), 404–413. https://doi.org/10.1108/JCM-07-2016-1871
Edelman, D., & Singer, M. (2015). Competing on customer journeys. Harvard Business Review, 93(11), 88–100.
Ertekhar, A., Fullwood, C., & Morris, N. (2014). Capturing personality from Facebook photos and photo-related activities: How much exposure do you need? Computers in Human Behavior, 37, 162–170. https://doi.org/10.1016/j.chb.2014.04.048
Holzack, S. (2016). Why the social media ‘buy button’ is still there, even though most never use it. Business Magazine. Retrieved on June 2, 2020. Published online at: https://www.washingtonpost.com/news/business/wp/2016/01/14/why-the-social-media-buy-button-is-still-there-even-though-most-never-use-it/. Accessed on January 14, 2016.
Howard, J., & Sheth, J. (1972). The theory of buyer behavior. Free Press.

India Ministry of Health and Family Welfare (2021). India Ministry of Health and Family Welfare. Accessed on May 20, 2021. Published online at https://www.mohfw.gov.in/

Jaccoby, J. (1975). Perspectives on a consumer information processing research program. Communication Research, 2(3), 203–215. https://doi.org/10.1177/009365027500200302

Joshi, F., & Rustemj, V. (2017). The impact of social media on consumer behavior - case study. Journal of Knowledge Management, Economics and Information Technology, 7(1), 1–21. https://www.sciencedirect.com/science/article/pii/S1579_Fitore_Jasvar_Rustemi-The_impact_of_social_media_on_consu

Kumar, S., Dhir, A., Talwar, S., Chakraborty, D., & Kaur, P. (2020). What drives brand love for natural products? The moderating role of household size. Journal of Retailing and Consumer Services, 58, 1-10. Accessed on October 28, 2020, Available online at: https://doi.org/10.1016/j.jretconserv.2020.102329.

Laota, S., Islam, A. N., Farooq, A., & Dhir, A. (2020). Unusual purchasing behavior during the early stages of the COVID-19 pandemic: The stimulus-organism-response approach. Journal of Retailing and Consumer Services, 57, 102224. Accessed on October 31, 2020, available online at: https://doi.org/10.1016/j.jretconserv.2020.102224

Lemon, K., & Verhoef, P. (2016). Understanding customer experience throughout the customer journey. Journal of Marketing, 80(6), 69–86. https://doi.org/10.1509/jm.15.0420

Liu, C., & Arnett, K. (2000). Exploring the factors associated with web site success in the context of electronic commerce. Information and Management, 38(1), 23–33. https://doi.org/10.1016/S0378-7206(00)00049-5

Malik, A., Dhir, A., & Nieminen, M. (2016). Uses and gratifications of digital photo sharing on Facebook. Telematics and Informatics, 33(1), 129–138. https://doi.org/10.1016/j.tele.2015.06.009
Mason, A. (2020). Coronavirus disrupts the United States economy: A preliminary conceptual investigation. Journal of International Business and Economics, 20(3), 77–85. http://dx.doi.org/10.18374/JIBE-20-3-6

Mason, A., Narcum, J., & Mason, K. (2020). Changes in consumer decision-making resulting from the COVID-19 pandemic. Journal of Customer Behaviour, 19(4), 299–321. Available online at: https://doi.org/10.1362/147539220X16003502334181

Mason, A., Narcum, J., Mason, K., & Awan, U. (2021). Social media marketing importance after Covid-19. Cogent Business and Management, 8(1), 1870797. https://doi.org/10.1080/23311975.2020.1870797

Mehrabian, A., & Russell, J. (1974). An approach to environmental psychology. MIT Press.

Mitchell, J. (2020). State shutdowns have taken at least a quarter of U.S. economy offline. The Wall Street Journal. Published April 5, 2020, online at https://www.wsj.com/articles/state-coronavirus-shutdowns-have-taken-29-of-u-s-economy-offline-11586079001. Accessed on May 30, 2020.

Nicosia, F. (1982). Consumer decision processes: A futurist view. Advances in Consumer Research, 9(1), 17–19.

Phillips, D., Olson, J., & Baumgartner, H. (1995). Consumption visions in consumer decision making. Advances in Consumer Research, 22(1), 280–284.

Roo, A. (2020). Social distancing will hit the best-performing restaurant stocks. Here’s how bad it could get. Barons Online. Published online on March 16, 2020 at https://search.proquest.com/obcommerce/docview/2372759642/fulltext/391FA67D876A28BQ?accountid=8364. Accessed on May 28, 2020.

Sarkor, S., & Sarkar, P. (2019). Data monetization strategies for new age digital communication providers in India. Telecom Business Review, 12(1), 23–34. http://52.172.152.24/index.php/tbr/article/view/190562

Shemwell, D., Yavas, U., & Bilgin, Z. (1998). Customer-service provider relationships: An empirical test of a model of service quality, satisfaction and relationship-oriented outcome. International Journal of Service Industry Management, 9(2), 155–168. https://doi.org/10.1108/09564239810210505

Sher, P., & Lee, S. (2009). Consumer skepticism and online reviews: An elaboration likelihood model perspective. Social Behavior and Personality: An International Journal, 37(2), 137–144. https://doi.org/10.2224/sbp.2009.37.1.137

Singla, N., & Arora, R. (2015). Social media and consumer decision making: A study of university students. International Journal of Marketing and Business Communications, 4(4), 32–38. https://doi.org/10.21863/ijmbc/2015.4.4.021

Slater, J. (2020). India’s economy contracts by nearly 24 percent, its sharpest drop on record. The Washington Post. Published on Aug. 31, 2020. Available online at https://www.washingtonpost.com/world/asia_pacific/indias-economy-contracts-by-nearly-24-percent-amid-pandemic/2020/08/31/92318bfe-eb70-11ea-bd08-1b10132b458f_story.html. Accessed on June 17, 2021.

Spreng, R., MacKenzie, S., & Olshavsky, R. (1996). A reexamination of the determinants of consumer satisfaction. Journal of Marketing, 60(3), 15–32. https://doi.org/10.1177/002224299606000302

Srinivasan, T. (1987). An integrative approach to consumer choice. Advances in Consumer Research, 14, 96–100.

Tam, L., & Jeong-Nam, K. (2019). Social media analytics: How they support company public relations. Journal of Business Strategy, 40(1), 28–34. http://dx.doi.org/10.1108/JBS-06-2017-0078

Thota, S. (2018). Social media: A conceptual model of the why’s, when’s and how’s of consumer usage of social media and implications on business strategies. Academy of Marketing Studies Journal, 22(3), 1–12. https://www.abcacademies.org/articles/socialmedia-a-conceptual-model-of-the-whys-whenand-hows-of-consumer-usage-of-social-media-and-implications-on-business-strategies-7531.html

Thota, S. (2018). Social media: A conceptual model of the why’s, when’s and how’s of consumer usage of social media and implications on business strategies. Academy of Marketing Studies Journal, 22(3), 1–12.

Voyer, P., Ronaweera, C., & Laslo Sofias, D. (2015). The impact of word of mouth on service purchase decisions: Examining risk and the interaction of tie strength and involvement. Journal of Service Theory and Practice, 25(5), 636–656. https://doi.org/10.1108/JSTP-04-2014-0070

Wertz, J. (2019). How business and influencers are monetizing Instagram, Forbes. Published on Dec 31, 2019 at https://www.forbes.com/sites/jowertz/2020/12/31/how-businesses-and-influencers-are-monetizing-instagram/#5d0bb8f1078. Accessed on May 22, 2020.

Winter, J., & Dodou, D. (2010). Five-point Likert items: T test versus Mann-Whitney-Wilcoxon. Practical Assessment, Research, and Evaluation, 15(1), 11. https://doi.org/10.7275/bj1p-t564

Wright, P. (1972). Consumer judgement strategies: Beyond the compensatory assumption. Association for Consumer Research, 14, 96–100. https://www.acrwebsite.org/volumes/12009

Xu, J., Benbasat, I., & Cenfetelli, R. (2014). The nature and consequences of trade-off transparency in the context of recommendation agents. MIS Quarterly, 38(2), 379–406. https://doi.org/10.25300/MISQ/2014/38.2.03

Mason. (2021). Citation not provided to avoid revealing authors of current study.

Yuksek, M., Mine, G., & Miller, E. (2016). Social media as complementary consumption: The relationship between consumer empowerment and social interactions in experiential and informative contexts. Journal of Consumer Marketing, 33(2), 111–123. https://doi.org/10.1108/JCM-04-2015-1396
Appendix Survey Instrument
Adapted from Mason et al. (2021)

**Dependent Variable 1: Identification of Product Needs Items***

(1) Please rate the degree to which you used social media to identify needed products before the COVID-19 pandemic.

(2) Please rate the degree to which you currently use social media to identify needed products.

**Dependent Variable 2: Product Comparison (Shop) Information Search Items***

(1) Please rate the degree to which you used social media to gather information to compare products before the COVID-19 pandemic.

(2) Please rate the degree to which you currently use social media to gather information to compare products.

**Dependent Variable 3: Product Evaluation Items***

(1) Please rate the degree to which you used social media to evaluate product purchase risk before the COVID-19 pandemic.

(2) Please rate the degree to which you currently use social media to evaluate product purchase risk.

**Dependent Variable 4: Product Purchase Items***

(1) Please rate the degree to which you used social media to purchase products before the COVID-19 pandemic.

(2) Please rate the degree to which you currently use social media to purchase products.

**Dependent Variable 5: Post—Purchase Satisfaction Items***

(1) Please rate the degree to which you used social media as a medium to express post-purchase satisfaction or dissatisfaction before the COVID-19 pandemic.

(2) Please rate the degree to which you currently use social media as a medium to express post-purchase satisfaction or dissatisfaction.

* Rated items used a scale of 1 to 7 where 1 = low and 7 = high.

**Respondent Demographic Items**

(1) Age

(2) Gender

(3) Race

(4) Annual Income

(5) Highest Education Level
