IMPACT OF CUSTOMERS' OPINION ABOUT SOCIAL MEDIA ADVERTISEMENT ON BUYING BEHAVIOUR: MODEL BASED APPROACH

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ABSTRACT

The study analyzed the various dimensions of customers' opinions about social media advertisement on buying behaviour. The total number of questionnaires distributed in the self-administered survey was 750 sets. A purposive sampling method is applied in this research for selecting the sample. As a result, 540 (filled questionnaire) valid sets of questionnaires were available and then used for further analysis using SPSS software version 21. A structured questionnaire was used to collect the data, while the confirmatory factor analysis and structural equation modeling was used to analyze the data. Hence, the study, therefore, concluded that the various model fit statistics indicates that model was good fit.

Keywords: Social Media Advertisement, Customers, Buying Behavior, Confirmatory Factor Analysis and Structural Equation Modeling.

INTRODUCTION

Social Networking Sites are becoming more and more popular every day. Companies are continuously coming up with new ideas of using social networking sites for their advantage, and advertising is only one of the many purposes that social networking sites can be used for. The expectations concerning the power of social networking sites as an advertising channel have been set very high. Social networking sites are expected to be a very effective channel for marketing with minimum investments. The recession has only boosted the usage of social media by marketers since the assumed cost-effectiveness attracts many marketers with tight budgets. Moreover, by using social networking sites, consumers have the power to influence other buyers through reviews of products or services used. Consumers are also influenced by other psychosocial characteristics like income, purchase motivation, company presentation, company or brand's presence on social networks, demographic variables, workplace method of payment, and type of stores.

REVIEW OF LITERATURE

Raval (2013) found that the factors knowledge, communication and entertainments age group of people between 15-20 years use social media predominantly for entertainment while people aged between 20-30 years use for education purposes related to social media usage as her sample (N=100) shows some ideas to usage issue. Spiliotopoulos and Oakley (2013) noted that the motives in the usage of social network site through social antecedents, usage metrics, and personal network metrics are the means though which we can know them.

Wesseling (2013) Elmannai, Odeh and Bach (2013) explored that the academic use of online social networks especially marketing world. It explains how social network online affect various aspects of life and especially how to use it academically. Gregory et al. (2014) found that the Face book has been used as instructional medium for college students and found it enhances academic performance of the students. Thuseethan and Kuhanesan (2014) revealed that the site into user friendly for the youngsters. His creation, Facebook, knows what 800 million people, more than 10 percent of the world's population, think, read and listen. Internet users spend more time on Facebook than on any other site. The Harvard dropout is now creating his own monetary system, Facebook Credits, to facilitate transactions and profits. He is now America's 14th richest man, according to **Forbes.** Sampasa-kanyinga, H., & Lewis, R. F. (2015) investigated the association between time spent on Social Networking Sites (SNSs) and unmet need for mental health support. Among other things It was found that out of total samples 25.2% of students reported using SNSs for more than2 hours every day, 54.3% of students reported using SNSs for 2 hours or less every day, and 20.5% reported infrequent or no use of SNSs. Suraj Sharma et al. (2016) found that there are few authentic studies on SNSs status in the Indian scenario especially in Uttarakhand. Therefore authors felt a strong need to assess the usage pattern of SNSs in the college students. Author in this paper also trying to get the overall view of the social media usage by the college goers and will present a comparison of the usage by the male and female undergraduates. Matthew N. O. Sadiku et al. (2019) examined that Social networking has changed the way people communicate, share information, and interact socially. It allows individuals to connect and socialize with others, regardless of location. It is noted that the popularity of social networking increases, new applications for the technology are often being observed. Neeru Saini et al. (2020) suggested various advantages on quality of life for daily users of social networking sites versus nondaily users. Daily users are better able to handle stress related to relationships and work; they are more satisfied with their classmates, the way they handle the problems, and their physical appearance. The prevalence of physical and social health problems among daily and nondaily users of the SNSs showed no significant difference. Currently, Internet use might not have reached the levels where it embarks on the existing state of health. Continuous and critical observation of the changing trends is therefore warranted. Shu-Hsien Liao et al. (2021) investigated the Taiwan online social media users' behaviors using data mining methods, including clustering analysis and association rules. Clustering analysis have investigated possible profiles of users and association rules are to find knowledge patterns and rules of user profiles. It is noted that the online social media usage motivation/preferences and social commerce behavior in order to generate social commerce recommendations in terms of social technology development in the modern society. Aslihan Nasir. V et al. (2021) examined that the Digitalization, personalization and globalization shape how companies contact and communicate with their consumers who have different needs and wants. it is observed that consumers' purchase intentions for the products and services presented in social media advertising are influenced by the following factors: perceived relevance, performance expectancy, informativeness, impulse buying tendency, ease of being persuaded, and social network proneness. It is noted that understanding differences across segments can help companies design, manage and convey their social media advertising campaigns to their target audience in a convincing, timely, effective, and efficient way, which in turn, let them gain competitive advantage in highly volatile and dynamic markets.

Objectives of the Study

1. To study the impact of opinion about social media advertisement on buying behavior.

Research Methods

The study is an empirical one based on data gathered from the respondents who have been chosen for the study in Tamilnadu. A sample of 540 respondents has been selected for the study. For this study, the researcher used a well-structured questionnaire to collect the data from the respondents. The survey related to customers' opinions about social media advertisement on buying behaviour. The researcher used Confirmatory Factor Analysis and Structural Equation Modeling analysis to identify the impact of opinion about social media advertisement on buying behaviour. IBM SPSS 21 version was used for statistical purposes.

DISCUSSION AND CONCLUSION

The target respondents of this study were social networking sites users in the State of Tamilnadu. The questionnaire was sent to 750 social networking sites users and received 540 filled questionnaire. Firstly, descriptive statistics was performed. From the filled questionnaire, 360 respondents were male, and 180 respondents were females. The specification of the measurement model for each underlying construct with a discussion of the path diagram. Then, it describes the use of multi-item scales to measure each factor in the measurement model. This is followed with a description of the procedures that were conducted to modify the measurement model. There are single-headed arrows linking the factors (also called latent variables) to their items (indicators), and single-headed arrows linking the error terms to their respective indicators. There are no single-headed arrows linking the factors because there are no theoretical relationships that one of these factors causes the other. Instead, double-headed arrows show correlations between these factors. These figures also provide the standardized parameter estimates (also called factor loadings) on the arrows connecting factors with their items. Further analyses were conducted to evaluate the second step of reliability and validity of each construct in the proposed model. Internal consistency was assessed using Cronbach's alpha, CR and AVE. As indicated in the following tables, these measures identified values above the recommended levels needed for this research (i.e., .70 for Cronbach's alpha (α value), .60 for CR, and .50 for AVE), indicating acceptable levels for the reliability of constructs. In the case of validity, convergent validity was supported by all items being statistically significant (P<0.001) and loading on their specified factors. Convergent validity was also supported by being AVE .50 and over. Furthermore, the fit of the model using goodness-of-fit indices has confirmed construct validity.

Table 1 RELIABILITY AND VALIDITY OF OPINION ABOUT SOCIAL NETWORKING SITES ADVERTISEMENT					
Code	Statement	Loadings	CR	AVE	α value
AT1	I like banner product and brand advertising on Social networking sites profiles	0.696	0.893	0.544	0.893
AT2	I like Social networking sites profiles created by the sponsor company of the product or brand	0.781			
AT3	I like Social networking sites profiles created by customer / fans of the product or brand	0.764			
AT4	I like You Tube videos created by the sponsor company of the product or brand	0.710			
AT5	I like You Tube videos created by customers /fans of the product or brand	0.768			

AT6	I like Twitter feeds for the product or brand	0.724			
AT7	Overall attitude towards social media advertising	0.713			
ENT1	Social networking sites ads are fun to watch or read	0.854	0.895	0.681	0.885
ENT2	Social networking sites ads are clever and quite entertaining	0.835			
ENT3	Social networking sites ads do not just sell - they also entertain me	0.882			
ENT4	Social networking sites ads are often amusing	0.720			
INF1	Social networking sites ads are a valuable source of product/service information.	0.741	0.830	0.621	0.823
INF2	Social networking sites ads are a convenient source of product/service information	0.828			
INF3	Social networking sites ads help keep up to date	0.792			
INV1	I find ads shown on Social networking sites distracting	0.811	0.918	0.690	0.917
INV2	I find ads shown on Social networking sites intrusive	0.850			
INV3	I find ads shown on Social networking sites irritating	0.862			
INV4	I find ads shown on Social networking sites invasive	0.799			
INV5	I find ads shown on Social networking sites interfering	0.831			
PC1	I feel secure in providing sensitive information to the Social networking sites web site	0.815	0.852	0.657	0.851
PC2	I feel the Social networking sites web site will keep my personal details private	0.754			
PC3	I feel secure in posting personal information on my Social networking sites pages	0.860			
PI1	Participating in a Social networking sites is exciting	0.837	0.923	0.669	0.924
PI2	Participating in a Social networking sites is cool	0.749			
PI3	Participating in a Social networking sites is sociality desirable	0.876			
PI4	I recommend participating in a Social networking sites to others	0.833			
PI5	I encourage my friends to participate in a Social networking sites	0.911			
PI6	I say positive things about Social networking sites to others	0.678			
QL1	Participating in a Social networking sites improves the quality of my life	0.839	0.836	0.629	0.837
QL2	Participating in a Social networking sites can reduce stress after a difficult day	0.740			
QL3	Participating in a Social networking sites is a way to enjoy myself or relax	0.798			
SBC1	The brands are advertised through Social networking sites are consistent with how I see my self	0.746	0.840	0.568	0.84

SBC2	The brands are advertised through Social networking sites cater to people like me	0.727			
SBC3	The brands advertised through Social networking sites reflect who I am	0.774			
SBC4	The typical customers of brands advertised through Social networking sites are very much like me	0.766			
ST1	I tend to participate in social networking sites around the same time of day	0.892			
ST2	My participating in a Social networking sites fits together in a structured way	0.792			
ST3	Participating in a Social networking sites fulfills a purpose in my life	0.854	0.926	0.716	0.926
ST4	I have a daily routine that I follow with regard to participating in Social networking sites	0.820			
ST5	Sometimes checking Social networking sites is a way to "get doing " with my day	0.870			

Source: Primary Data and Computed by using SPSS

As presented in Table 1, nine dimensions items were used to measure the model of opinion about social networking sites advertisement. The results of CFA provided evidence for accepting this model. According to Figure 1, the standardized parameters estimate shows that all indicators were statistically significant (P<0.001) and loaded on the model of opinion about social networking sites advertisement.

Table 2 values suggest an adequate fit to the model, even though the chi-square was significant. The measurement model could be judged as providing an acceptable fit even though the chi-square value is statistically significant, especially with a large sample (Anderson & Gerbing, 1988, Bagozzi & Yi, 1988). All the factors loaded above the prescribed level and the values of Composite Reliablity (CR) and Average Variance Extracted (AVE) are also within the recommended level which confirms the reliability and validity of this construct.

Though some of the above listed factor loadings are below the prescribed level, they were retained because their presence important in this construct.
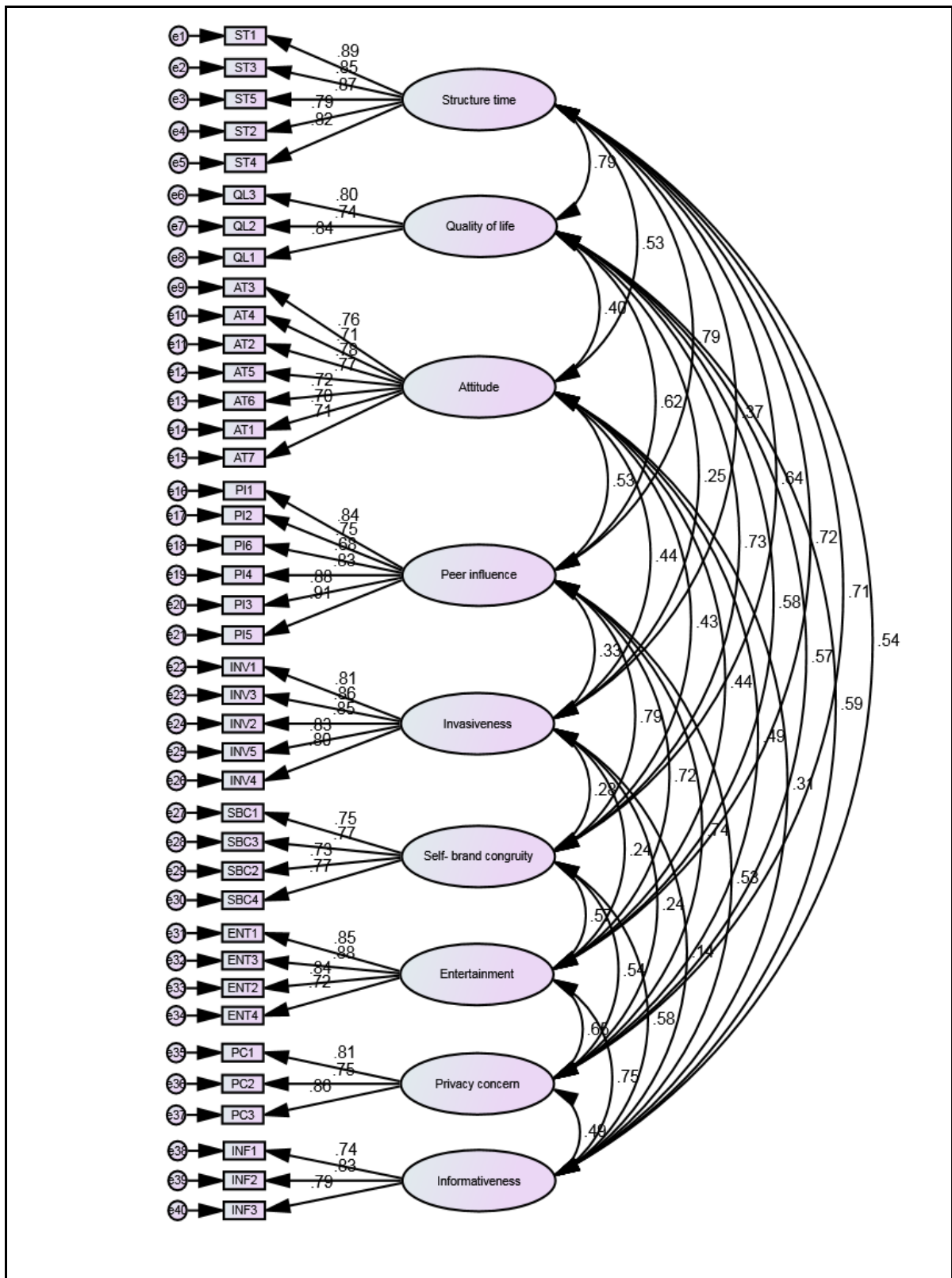
FIGURE 1
CFA MEASUREMENT MODEL OF OPINION ABOUT SOCIAL NETWORKING SITES ADVERTISEMENT

Source: Primary Data and computed by using AMOS.

Structural Equation Modeling – Impact of Opinion about Social Media Advertisement on Buying Behavior
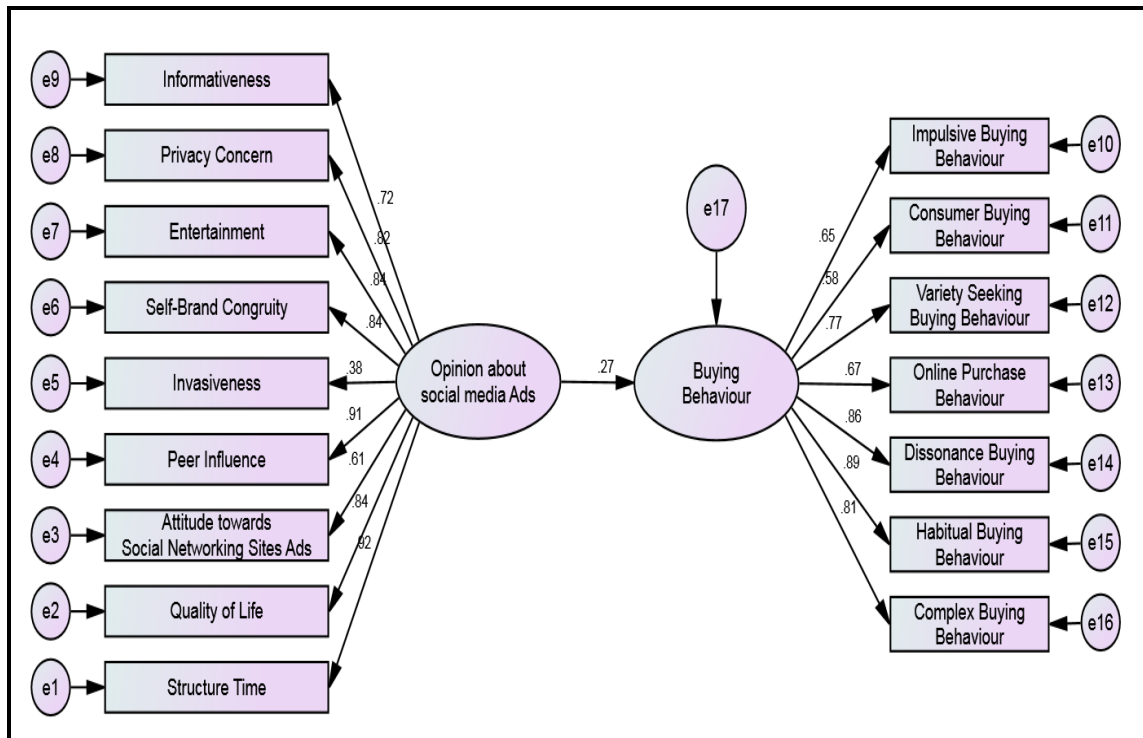

FIGURE 2
IMPACT OF OPINION ABOUT SOCIAL MEDIA ADVERTISEMENT ON BUYING BEHAVIOUR

Source: Primary Data and computed by using AMOS.

Structural equation modeling (SEM) is a tool for analyzing multivariate data that has been long known in marketing to be especially appropriate for theory testing (e.g., Bagozzi, 1980). Structural equation models go beyond ordinary regression models to incorporate multiple independent and dependent variables as well as hypothetical latent constructs that clusters of observed variables might represent. They also provide a way to test the specified set of relationships among observed and latent variables as a whole, and allow theory testing even when experiments are not possible. As a result, these methods have become ubiquitous in all the social and behavioral sciences (MacCallum & Austin, 2000).

Table 2 STRUCTURAL EQUATION MODELLING FOR IMPACT OF OPINION ABOUT SOCIAL MEDIA ADVERTISEMENT ON BUYING BEHAVIOR		Unstandardized loadings	Standardized loadings	S.E.	C.R.	P value
Path analysis		Unstandardized loadings	Standardized loadings	S.E.	C.R.	P value
Buying behaviour	Opinion about social media advertisement	0.16	0.27	0.03	5.85	0.000**
Structure Time		1.00	0.92			

Quality of Life		0.79	0.84	0.03	28.66	0.000**
Attitude towards Social Networking Sites Ads		0.50	0.61	0.03	16.44	0.000**
Peer Influence		0.84	0.91	0.02	35.44	0.000**
Invasiveness		0.40	0.38	0.04	9.29	0.000**
Self-Brand Congruity		0.70	0.84	0.02	28.71	0.000**
Entertainment		0.70	0.84	0.02	28.59	0.000**
Privacy Concern		0.85	0.82	0.03	27.65	0.000**
Informativeness		0.47	0.72	0.02	21.11	0.000**
Impulsive Buying Behaviour		1.00	0.65			
Consumer Buying Behaviour		0.80	0.58	0.07	12.31	0.000**
Variety Seeking Buying Behaviour		1.30	0.77	0.08	15.59	0.000**
Online Purchase Behaviour	Buying behaviour	0.97	0.67	0.07	13.81	0.000**
Dissonance Buying Behaviour		1.87	0.86	0.11	17.01	0.000**
Habitual Buying Behaviour		2.11	0.89	0.12	17.50	0.000**
Complex Buying Behaviour		1.76	0.81	0.11	16.28	0.000**

**Significant at 1 percent level.

SE = standard error

CR = Critical ratio

The significance test is the critical ratio (CR), which represents the parameter estimate divided by its standard error. The parameter estimate is significant at $p \leq 0.01$ and value of C.R is > 2.58. All structural paths among the exogenous and endogenous latent variables are found to be significant.

This regression weight represents the degree of association between the constructs and the manifesting variables. All constructs of respondents' opinion about social media site advertisement factors are significant. Among those variables, structure time (beta=0.92), peer influence (beta=0.91), quality of life (beta=0.84), entertainment (beta=0.84), self-brand congruity (beta=0.84) and privacy concern (beta=0.82) are highest impact factors and remaining factors like attitude towards social networking sites ads (beta=0.61), informativeness (beta=0.72) and invasiveness (beta=0.38) also significant predictors of opinion about social media site advertisement.

All construct of buying behaviour on social media advertisement are also found significant. Among those, complex buying behaviour (beta=0.81), habitual buying behaviour (beta=0.89), dissonance buying behaviour (beta=0.86) are highest predictable factors of consumer behaviour with lowest significant value. Remaining factors like online buying

behaviour (beta=0.67), variety seeking buying behaviour (beta=0.77), consumer behaviour (beta=0.58) and impulsive buying behaviour (beta=0.65) are also found significant with lowest beta values.

Impact of opinion about social media site advertisement have significant effect on buying behaviours of the customer, it can be concluded from the above figure. When opinion about social media site advertisement goes up by 1 standard deviation, buying behaviours of the customer goes up by 0.273 standard deviations and it is positive and significant at 1 percent level.

Table 3
MODEL FIT STATISTICS

Goodness of Fit Statistics	Value	Values for good fit
Chi Square Value (CMIN)	506.747	
Degree of Freedom (Df)	103	
Chi Square / Df (CMIN/Df)	4.92	2 to 5
Goodness of Fit Index (GFI)	0.898	> 0.9
Root Mean Square Error of Approximation (RMSER)	0.084	< 0.08
Adjusted Good of Fit Index (AGFI)	0.801	> 0.8
Comparative Fit Index (CFI)	0.912	> 0.9
Normed Fit Index (NFI)	0.903	> 0.9

Source: Primary Data and Computed by using SPSS.

To analysis the relationship between these factors SEM approach (AMOS 21) has been used. SEM approach allows concurrent estimations of multiple regression analysis in one single frame work. Browne & Cudeck (1993) study indicates the model fit can be checked by RMSEA which is less than 0.08 has a good fit and less than 0.05 has a closer fit. Chin and Todd (1995) study proposed that for goodness of model fit GFI (Goodness of Fit Index) and NFI (Normed Fit Index) should be above 0.9 and AGFI (Adjusted good-of-fit Index) should be above 0.8. Bentler (1990) study suggest for good model fit CFI (Comparative Fit Index) should be greater than 0.9. The goodness of final model fit has been shown in Table 2. As per the various model fit statistics indicates that model was good fit.

CONCLUSION

Every day people are making purchases according to their requirements both online as well as in person. Simultaneously, they are also making several decisions regarding purchasing. It is noted that the development and quick growth of online social networks enables customers to do several kinds of activities that include blogging, chatting and interaction, gaming, and entertainment, as well as messaging. For an incident, Facebook has been acknowledged as the most popular and widely used Social Networking Sites. People who sign into Facebook make lively and dynamic profiles, share many kinds of information with people they have added, and so interact with others in a lively manner. Social relations and dealings with individuals play a significant role in changing people's mindsets regarding their purchasing decisions.

REFERENCES

Anderson, J., & Stajano, F., (2008). Not That Kind of Friend: Misleading Divergences between Online Social Networks and Real-World Social Protocols, University of Cambridge.

Aslihan Nasir. V., Ali Can Keserel., Onur Eren Surgit & Mehmet Nalbant (2021). Segmenting consumers based on social media advertising perceptions: How does purchase intention differ across segments?. Telematics and Informatics, 64, November 2021, 101687. https://doi.org/10.1016/j.tele.2021.101687

Elmannai, W., Odeh, A., & Bach, C., (2013). Academic use of Online Social Networks. International Journal of Innovation and Applied Studies, 3 (2), 337-345.

Gregory, P., Gregory, K., & Eddy, E., (2014). The Instructional Network: Using Facebook to Enhance Undergraduate Mathematics Instruction, Journal of Computers in Mathematics and Science Teaching, 33 (1), 5-26.

Jan Hruska and Petra Maresova (2020). Use of Social Media Platforms among Adults in the United States—Behavior on Social Media, Societies 2020, 10, 27; https://doi.org/10.3390/soc10010027.

Matthew N. O. Sadiku, Adedamola A. Omotoso, Sarhan M. Musa (2019). Social Networking. International Journal of Trend in Scientific Research and Development (IJTSRD), 3 (3), 126-128.

Neeru Saini et al. (2020). Effect of Social Networking Sites on the Quality of Life of College Students: A Cross-Sectional Study from a City in North India. The Scientific World Journal, Volume 2020, 1-8. https://doi.org/10.1155/2020/8576023

Raval, K. M., (2013). Use of Social Media by Students. International Journal of Advanced Research in Computer Science and Management Studies, 1(1), 1-5.

Sampasa-kanyinga, H., & Lewis, R. F. (2015). Frequent Use of Social Networking Sites Is Associated with Poor Psychological Functioning among Children and Adolescents, 18(7), pp. 380–385. http://doi.org/10.1089/cyber.2015.0055

Shu-Hsien Liao., RetnoWidowati & Yu-Chieh Hsieh (2021). Investigating online social media users' behaviors for social commerce recommendations. Technology in Society, 66, August 2021, 101655. https://doi.org/10.1016/j.techsoc.2021.101655

Spiliotopoulos, T., & Oakley, I., (2013). Understanding Motivations for Facebook Use: Usage Metrics, Network Structure, and Privacy. Paris, France: ACM.

Suraj Sharma et al. (2016). A Study on the Social Networking Sites Usage by Undergraduate Students. Online International Interdisciplinary Research Journal, (Bi-Monthly), 6 (3), 157-163.

Thuseethan, S., & Kuhanesan, S., (2014). Influence of Facebook in Academic performance of Sri Lankan university students. USA: Global Journal Incorporation.

Wesseling, N., (2013). Facebook use and Information Problem Solving Skills", 7th International Technology. Education and Development Conference, 383-390.