# Acceptance and Behavior of Social Media Use: Causality Analysis of Media Needs, Media Choice and Intervening Characteristics of Social Media Innovations

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*Authors' contributions*

*This work is carried out in collaboration among all authors. The JSDR writer designed the research, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors Kholil and MS administered the research analysis. All authors read and approved the final manuscript.*

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## ABSTRACT

Social media as one of the implementations of CMC has been widely used by more than half of the world's population in various forms of fulfilling needs and choices in interaction and communication, which is a phenomenon that we can see today. This research aims to see to what extent these needs and choices influence the acceptance and use of social media directly or indirectly through the characteristics of the innovation possessed by these social media.

The research method used is a quantitative approach through a survey of the population of the reseacrh, namely students of the communication science study program of PTS in DKI Jakarta, represented by 378 respondents who have been validated. Data analysis using SEM modeling which is divided into measurement and structural models.

The results of the research indicate that social media needs and choices have a significant effect on social media acceptance, social media needs and the choices have a significant effect on social

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media use behavior, then also the social media needs and choices through the characteristics of innovation have a significant effect on social media acceptance and needs. The choice of social media through the characteristics of innovation has a significant effect on the behavior of using social media. This research also shows that the need factors include personal needs, social needs and the need for tension relief and choice factors, namely media richness and critical mass of social media have an influence in accepting and using social media by students.

*Keywords: Communication; CMC; socia media; UGT; media needs; media choice; innovation; social media activities.*

## 1. INTRODUCTION

The internet network is an open global communication network and connects millions and even billions of computer networks of various types and types, using communication tools such as telephones, satellites and so on.There are two main basic elements to understanding the internet, namely viewing the computers as a communication tool and the computers as a communication system [1]. As a communication tool, the internet is seen as a computer that is used for mediation in communicating which is also called Computer Mediated Communication (CMC). Furthermore, computers as a communication system can be understood through the communication model delivered by Shannon & Weaver in 1949 [2].

The internet and computers are technologies that have developed and have become a part of the communication entity that has had a significant effect on changes in culture and communication. This can be shown by the high use of the internet globally at this time. Data We are social in 2020 show that of the internet users globally, there are around 4.54 billion or 58.8% and 3.8 billion or 49.03% actively using social media. Then based on how to access social media, on average most of them use smartphones, which is around 3,256 billion or around 42.42% of the world's population.

Several studies show different forms of use of social media,among others as a means of communication with friends and family [3,4] , having fun and getting information [5,6] making new friends [7,8], marketing tools, customer interaction and interactive media [9], sharing photos [10] , sharing status, images, links and events [11] , learning media [12]. This usage pattern also refers to the frequency and duration of their activities on social media [13,14].

Likewise in the initial survey, this research shows the existence of various uses of social media, for example (1) Facebook to upload photos and videos, update information, make friends and communicate, (2) Instagram to update photos and videos, search for information, entertainment, communicate and (3) whastapp to communicate with friends, family, workplace.

The use of social media is possible because of the factors that can generate attitudes and intentions of potential users. These factors are based on the view that the social media platform is a renewable and growing communication media that has different advantages from the previous media, as well as in accommodating content, social media, which provides flexibility for the user audience to produce messages to share alot of things. and also get various forms of messages from interactions in the community and interpersonal interactions. This assumption is strengthened by the research of [15], which examines the effect of the intention variable as a driver of social media use with significant results; [16].

The advantages of social media platforms that are able to build attitudes and intentions to use, among others, were conveyed by [17,18] social media allows individual users to build public or semi-public profiles and articulate lists of other users with whom they share connections. [19] urged that social media is easier to navigate and user friendly, popularity in its environment, greater opportunities for interactivity, universal and global, its ability to upload photos and videos, communicate with friends; social media. Furthermore, [20] said that social media allows users to create profiles on the site, to send information and communicate with other users of the site.

Moreover, the advantages in accommodating content are conveyed by [21]. They argued that social media can share family and social problems, discuss risky behavior, disclose personal information, and interact with peers. [22] said that social media as a function for

documentation, self-presentation, social interaction, and entertainment. This site has changed the way people communicate with each other, share common interests, connect with friends, participate in discussion forums, and express themselves through personal blogs or mini home pages [23].

The factors of ease (ease of use) in use, usefulness, attitude and intention above are none other than the modeling developed by [24] in the acceptance of technology known as the technology acceptance model (TAM). In this research, the acceptance modeling is applied in social media platforms, where the social media serves as a medium in the communication process.

Then adopt the perspective of information acceptance theory, that the emergence of acceptance can be influenced by many things, including the influence of the recipient, the influence of the message, the influence of the source, the influence of technology and the environment [2].

The most basic influence of the recipient is the need factor. According to [2], basic needs can drive the behavior we do. Other needs are the need for social contact, exploration and comprehension of reality, socialization, diversion, entertainment and games. All of which are related to the mental, psychological, social and communication well-being conditions they build. [25] found that adolescents fully need social media to carry out individual activities, where these needs are related to communicating activities with family, with friends, access to video, audio, playing games and getting information.

Technological and environmental factors, technology is part of the communication process as a channel for delivering messages. Messages conveyed through different channels may affect reception of different messages. Currently, social media has many alternative platforms, so that it will affect their usage patterns according to the characteristics of each of these platforms. The characteristics of the platform are closely related to the ability of social media to accommodate various user activities in consideration of being accepted and used. In several studies, the ability of this media can be demonstrated by the ability of the media to handle several cues, the ability to provide feedback facilities, the ability to focus on self and have a variety of languages. These four

abilities are called "the media richness" [26] in [27-29] . Then from the environmental side that encourages acceptance and use of social media, among others, the number of users. The greater the number of social media users, the more it can be accepted by the audience to be used. The factor of the number of users that can influence the choice can be called "the critical mass". [30] in [31,32,27,33] . Media richness and critical mass are important considerations in choosing social media that are in accordance with user desires.

Thing It is also important to see that social media is a product of technology development. It is possible for users not to automatically adopt it, because of their limited knowledge. For this reason, it is possible that there is a process or phase where potential users make adjustments with various considerations. This phase acts as a bridge or trigger and at the same time encourages the acceleration of acceptance and use of social media. The process of diffusion of innovation developed by Roger in 1962 is thought to be able to accelerate the process of acceptance and use of social media, where the characteristics of social media innovation are taken into consideration in this process.

Based on this explanation, the research question is how the influence of media needs, media wealth and critical media on the acceptance and use of social media?

## 2. LITERATURE REVIEW

### 2.1 Computer Mediated Communication (CMC)

Computer mediated communication (CMC) was introduced by [34], which explains that the CMC is a process of human communication through computers, which involves people, situations in certain contexts. where the process uses the media for specific purposes. [35,36] provides a technical explanation, that CMC is a general term for all types of interpersonal communication (private and public) oris every communicative transaction conducted on the internet by e-mail, instant messaging systems, mailing lists, newsgroups, Webboard discussions, Internet Relay Chat, and web chat channels.

[37] distinguishes human communication in CMC, namely in a synchronous form where the interaction occurs in real time, and asynchronous, where the communicant and the

communicator do not have to be online simultaneously. Synchronous includes various types of online chat based on text, computer, audio, and video conferencing. Meanwhile, asynchronous includes email, discussion forums, and mailing lists. Then related to the communication system carried out in CMC, CMC can be done through a local area network (LAN) or via the Internet. CMC over the internet also allows for global communication, and provides an additional dimension of hypertext links to websites at www, and to e-mail addresses.

According to [38], CMC is categorized into two dimensions, namely (i) dimensions of online interaction based on text and multimedia environment and (ii) dimensions of adoption and adaptive communication technology. The dimensions of online interaction based on text and multimedia environments are related to perspectives and theories taken from the characteristics of CMC media, among others (1)*Social Presence Theory,* (2) Social Information Theory, (3) Social Context Cues Theory and (4) Social Identification / De-individuation Model (SIDE) approach. Meanwhile, online interaction based on multimedia environment includes Media Richness Theory and Hyperpersonal Communication Model. Then the theories included in the dimensions of diffusion, adoption, use and adaptive communication technology include (1) Technology Acceptance Model (TAM), (2) Uses & Gratification Theory, (3) Technology Diffusion Theory, (4) Adaptive Structuration Theory.

## 2.2 Theory of Uses and Gratification

Usability and gratification theory (*Theory of Uses and Gratification (ToUG)*) is an extension of Maslow's theory of needs and motivation [39]. According to [40], UG theory is the foundation of social and psychological needs that generate expectations of mass media or other sources, leading to differential patterns of media exposure or involvement in other activities, resulting in the need for gratification and other consequences. perhaps largely unintentional [40,41]. In mass media, Katz sees that in addition to receiving the information presented by the media, the public is also looking for information in the media as an escape, relaxation, entertainment and social prestige.

Based on the categorization of UG theory by [42] there are 5 needs, namely (1) Cognitive Needs - involving the acquisition of information, knowledge, and understanding, (2) Affective needs involving emotional experience, pleasure and aesthetics, (3) Personal Integrative Needs - involving strengthening credibility, self-confidence, stability, and status, (4) Social Integrative Needs - involving strengthening contact with family, friends, and the world, and (5) Tension release needs - involving escape and distraction.

## 2.3 Media Richness

Media wealth is described based on Media Richness Theory (MRT). Where MRT is a framework used to describe the media communication ability to reproduce information. This theory was introduced by [26] as an extension of the Social Information Processing Theory. MRT is used to rank and evaluate the perfection of certain communication media, such as telephone, video conferencing, and electronic mail. For example, telephones are unable to reproduce visual social cues such as movement so this medium is less than perfect for video conferencing which allows the transmission of gestures and body language. Based on the contingency theory and information processing theory, MRT explains that a more complete personal communication medium is usually more effective at communicating more ambiguous matters than other less complete media.

[26] define media wealth as the capacity of the media to develop shared meanings, overcome different frames of reference and clarify ambiguous problems to change understanding in a timely manner. Based on the work of [43], there are four attributes to classifying media richness: (1) the ability to handle several cues simultaneously; (2) the ability to facilitate prompt feedback; (3) the ability to establish personal focus; and (4) various languages.

## 2.4 Critical Mass

Critical mass refers to "The fraction of the population who choose to make a major contribution to collective action while the majority do little or nothing" [44]. This definition shows that critical mass is the basis for generating collective action. The acceptance of social media, especially in the community, requires the participation and collective action of all individuals whose activities are influenced by technology. [30] points out that "individuals who prefer to use interactive media may not consider

this media a viable option without universal access. In addition, [45] suggest that interactive media may fail without securing a critical mass of users for the technology. Therefore,

Furthermore, from the perspective of network externality, critical mass refers to the effect that the value of technology to users increases with the number of people adopting it [46,47]. Applying the perspective of network externality, [48] show that users can develop perceived critical mass (PCM) through interactions with other people. PCM was quickly strengthened as more and more people participated in networking activities. As a result, the attainment of a 'critical mass' of users has been recognized as the key to successful media acceptance [45,49-52].

Based on the development of Critical Mass theory research by [30] and [53] there are several indicators in understanding the use of social media, including: (1) Collective action; (2) Participation in groups; (3) Increasing the number of users; (4) Mutual interaction.

## 2.5 Diffusion of Innovation Theory and Characteristics of Social Media Innovation

Diffusion is a unique type of communication, where the message is about new ideas and diffusion is a change in social processes, namely the process by which changes occur in the structure and function of social systems. [54]. Diffusion is also described as a process by which an innovation is adopted and has been accepted by members of a particular community. Several main factors can influence the diffusion process, such as innovation itself, how information about innovation is communicated, timing, and the nature of the social system in which the innovation is introduced [55].

The main elements in the diffusion of innovation include: (1) innovation, (2) communicated through certain channels, (3) from time to time and (4) among members of the social system. [54]. Innovation is an idea, practice, or object that is considered new by individuals or other adoption units. Communication channels are the means used to send messages from one person to another. Time is an obvious aspect of any communication process. Time is inseparable from the events that occur, but this is an aspect of every activity. A social system is a set of interrelated units that engage in solving a common problem to achieve a common goal. In

the diffusion process, the time dimension is involved: 1) in the innovation decision process.

Then the consideration in adopting innovation is carried out in the five attributes of innovation characteristicsnamely (1) relative advantage, the extent to which an innovation is considered better than the idea it replaces. (2) Compatibility, the extent to which an innovation is consistent with existing values, past experiences, and the needs of potential users (3) Complexity , the extent to which an innovation is considered relatively difficult to understand and use, (4) Triability, the extent to which this innovation is experimented with on a limited basis and (5) Observation, the extent to which the results of an innovation can be seen by others [54].

## 2.6 Acceptance and Use of Social Media Behavior

This acceptance decision depends on the attitudes, intentions and behavior of individuals as social media users which can be explained using the theory of technology acceptance model (ToTAM) developed by Davis in 1989 and the theory of acceptance and use of integrated technology (Theory of unified technology acceptance and uses (TUTAU)) submitted by [56].

ToTAM is a model for understanding human behavior and attitudes towards the use of technology [57-59]. Two special variables in ToTAM that stand out in determining behavior towards technology use, attitudes towards technology adoption and actual use of technology, namely, perceived usefulness (PU) and perceived ease of use (PEoU)). Furthermore, attitudes and intentions to use become another part of acceptance.

TUTAU includes a wide variety of behavioral antecedents for technology adoption, which are specifically aimed at explaining intentional behavior for IT use and subsequent use behavior. TUTAU holds four main constructs, namely: (1) performance expectations, (2) business expectations, (3) social influences, and (3) facilitation conditions. This construct is a direct determinant of intention to use and behavior towards technology.

Based on these two theories partially, many studies have been carried out on the acceptance and use of social media, among others, by [3,5-9].
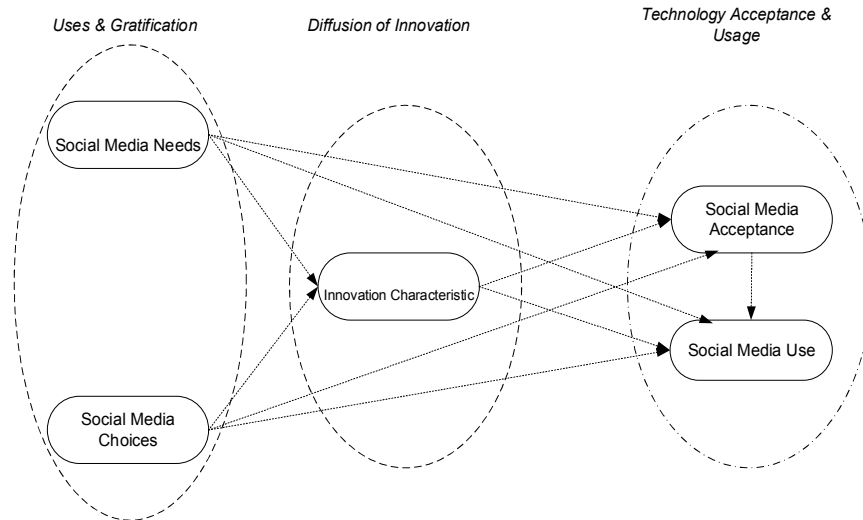
**Fig. 1. Research paradigm**
*Based on the paradigm, the following hypotheses can be formulated*
*H1: There is a significant effect of social media needs and choices on social media acceptance.*
*H2: There is a significant influence on the influence of social media needs and choices on social media usage behavior.*
*H3: There is a significant effect of social media needs and choices on social media acceptance through the characteristics of innovation.*
*H4: There is a significant effect of social media needs and choices on social media use patterns through the characteristics of innovation.*

This research focuses on the acceptance and use of social media as a communication medium, so that in order to get a picture of media acceptance there are several parameters that are in accordance with the characteristics of social media, namely (1) usefulness, (2) ease of use, (3) attitude and (4) behavioral intentions in using social media by adopters. Then for the use of social media it is measured by several parameters, including (1) duration of use, (2) frequency of use, (3) communication activities, (4) personal activities and connectivity. Thus, it is hoped that a more comprehensive usage pattern will be described.

X Based on the explanation above, in this research, the research paradigm can be presented as follows.

## 3. METHODS

### 3.1 Research Design

This reasearch uses a quantitative method with 5 latent variables, namely social media needs, social media choices, social media innovation characteristics, social media acceptance and social media use, based on the results of item validity and reliability tests, there are 61 predictor / manifest items that can be used as measurements. directly to the object of the research.

Measurement of the latent variables of social media needs using 3 constructs, namely (1) personal integrative needs, (2) social integrative needs and (3) tension-releasing needs. Measurement of the latent variable of social media choice with 2 construct variables, namely (1) media wealth and (2) critical mass of social media. Furthermore, the measurement of the latent variable characteristics of social media innovation with 4 construct variables, namely (1) relative advantage, (2) compatibility, (3) triability and (4) observability. Then to measure the latent variable of social media acceptance with 4 construct variables, namely (1) ease of use, (2) benefit, (3) attitude to use and (4) intention to use. For the last latent variable, namely the use of social media with 5 constructs, namely (1) frequency of use, (2) duration of use.

### 3.2 Population and Sample

The population of this research is students of the communication science study program at 6

private universities in DKI Jakarta, with a total population of 11,846 students.

Then to determine the number of research samples, using the Slovin (1960) formula model:

$$n_i = \frac{N}{(1+\partial^2.N)}$$

Where $n_i$ = number of samples, N = number of population, $\partial$ = significance level of 0.05.

The results of the calculation of the number of samples to the existing population obtained a sample size of 387. Furthermore, the data collection of this research is done through a questionnaire distributed both online and offline as many as 500 copies with the assumption that there will be inappropriate data and outliers proportionally, based on cluster proportional random sampling in the existing PTS with the formula:

$$n_i = \frac{N_i}{N} \times n$$

Where n = total number of samples, $n_i$ = number of samples / respondents per cluster, $N_i$ = total population per PTS, N = total population

The questionnaire returned as many as 431 copies and the results of verification of the incoming data, which are considered good and suitable for use reached 378 data from respondents. The details of the data are as shown in Table 1.

Then the research data were analyzed using SEM with the application of Lisrel 8.80. According to [60], the sample for SEM analysis with a minimum of 5 variables is 200 respondents. While, [61] recommend a ratio of sample size to number of parameters of 1: 5, so that if the number of predictors is 61 then the minimum sample size is 305 respondents. Thus, the collected sample of 378 is still considered representative.

The data analysis steps using SEM are (1) model specification, by building a theoretical model; (2) identification, by identifying the variables used; (3) estimation, by testing the suitability between the model and the measurement so that the test is carried out by using confirmatory factor analysis (CFA); (4) suitability test, namely by testing the suitability of the theoretical model.

The results of the research which is then carried out by testing the hypothesis and (5) re-specification. This is done if the model is improved.

## 4. RESULTS AND DISCUSSION

### 4.1 Characteristics of Respondents

This research took a survey object for Private University students of Communication Studies Program in DKI Jakarta with a total sample of 378 students. As for deomographically, the distribution of respondent data is shown in the following table.

Based on gender, the distribution of respondent data is dominated by women. Specifically 57.75 women and 42.5 men. This indicates that there is a gender gap in the sample of this study, as well as a higher response rate among students of Communication Studies program of the Private university in DKI Jakarta. Then based on the majority age over 19 years, this is in accordance with the object under study, namely students. Other information in the data distribution above, on the cost of data packages when using the media, the tools used and the length of time joining social media. It is important in this study to show that the average respondents at the level of adoption of innovation are the initial majority (53.44) and the final majority (30.42) based on the innovation theory presented by Roger (2003).

### 4.2 Description of Data

Respondents in this study were asked to fill out a questionnaire in the form of a statement with a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Descriptive data is done by calculating the frequency distribution of the response rate, mean and standard deviation at the 95% confidence level, as in Table 3 to Table 7 .

Table 3 shows the response rates based on the per-indicator mean score and the standard deviation of the latent social media needs variable. The total score of the average value for the three dimensions in this variable against the standard deviation includes PIN of 37.36 ± 7,362, SIN of 19.66 ± 4,578 and TRIN of 52.62 ± 11,337. The result of the average value is much greater than the standard deviation value in each dimension, presenting that the respondent's confidence level has the same or nearly the

same response to each indicator in this variable. This means that in general respondents believe they need social media in various activities.

Table 4 shows the response rates based on the per-indicator mean score and the standard deviation of the latent variables of social media choice. The total score of the average value for the two dimensions in this variable against the standard deviation includes MR of 25.40 ± 5,591, CM of 27.90 ± 5,755. The result of the average value is much greater than the standard deviation value in each dimension, presenting that the respondent's confidence level has the same or nearly the same response to each indicator in this variable. This means that in general respondents believe they choose social media in various activities.

Table 5 shows the response rates based on the per-indicator mean score and the standard deviation of the latent variables characteristic of social media innovation. The total score of the mean value for the five dimensions in this variable against the standard deviation includes RA of 14.60 ± 3.296, CMPT of 10.49 ± 2.596, CMPL of 10.08 ± 4.052, TRIA of 7.11 ± 1.745 and OBSV of 10.53 ± 2.877. The result of the average value is much greater than the standard deviation value in each dimension, which shows that the level of confidence of the respondent has the same or nearly the same response to each indicator in this variable. This means that in general respondents believe they choose social media in various activities. However, in CMPL the standard deviation is quite high, almost close to 50% of the average value, so that it is possible to influence the variable it represents. For this reason, in this research these dimensions are excluded from the latent variable dimensions of social media innovation characteristics. This finding is supported by the previous research conducted by [58] which shows that social media does not show complexity so it excludes this variable dimension.

Table 6 shows the response rates based on the per-indicator mean score and the standard deviation of the latent variables of social media acceptance. The total score of the average value for the four dimensions in this variable against the standard deviation includes PU of 18.74 ± 4.012, PEoU of 23.29 ± 4,971, ATU of 11.04 ± 2.321 and BI of 11.28 ± 2.445. The result of the average value is much greater than the standard deviation value in each dimension, presenting

that the respondent's confidence level has the same or nearly the same response to each indicator in this variable. This means that in general, respondents believe they chose social media in various activities.

Table 7 shows the response rates based on the per-indicator mean score and the standard deviation on the latent variables of social media use. The total score of the average value for the four dimensions in this variable against the standard deviation includes FRE of 13.71 ± 1,000, DUR of 3.53 ± 1.9023, COAC of 15.03 ± 3.544, PSAC of 13.36 ± 3.561 and CON of 14.38 ± 3.534. The result of the average value is much greater than the standard deviation value in each dimension, presenting that the respondent's confidence level has the same or nearly the same response to each indicator in this variable. This means that in general respondents believe they choose social media in various activities.

## 4.3 Measurement Model

To see whether the indicators in a construct are part of or can explain the construct (latent variables), testing is done with Confirmatory Factor Analysis (CFA). The CFA results are presented in the following table.

The table above shows that the t / t-values are greater than the critical values (or ≥ 1.96) and standardized loading factors ≥ 0.70, thus that the constructs in this study are declared valid to describe the latent variables.

Then for variance extracted (VE) all are> 0.5 and construct reliability (CR) is> 0.7, thus these constructs are reliable in describing the latent variables.

## 4.4 Structural Model

The structural model is used to test the research hypothesis, which previously tested the fit (Good of Fitness) on the model. The results of the suitability test are as follows.

Based on the results of the goodness of fit (GoF) test in three categories, it shows that the structural model generally has a good model, so this model can be used to test the hypothesis of this study.

## Table 1. Distribution of the research population

| NO | PTS name | Total Population | Number of Questionnaires Distribution | Number of Questionnaires Returned | Verified Questionnaire |
|---|---|---|---|---|---|
| 1 | Al Azhar University | 1,009 | 50 | 42 | 39 |
| 2 | Pancasila University | 1,168 | 50 | 45 | 38 |
| 3 | Bunda Mulia University | 1,187 | 50 | 47 | 44 |
| 4 | Mercu Buana University | 4,973 | 200 | 165 | 139 |
| 5 | Persada Indonesia University Yai | 2,337 | 100 | 84 | 74 |
| 6 | Prof. Muhamadiyah University. Dr. HAMKA | 1,172 | 50 | 48 | 45 |
| Total | | 11,846 | 500 | 431 | 378 |

## Table 2. Respondent demographic data

| Information | Characteristics | amount | Percentage | Information | Characteristics | amount | Percentage |
|---|---|---|---|---|---|---|---|
| Gender | Male | 160 | 42.25 | Communication Equipment | Smartphone | 309 | 81.75 |
| | Woman | 218 | 57.75 | Used | Laptop | 2 | 0.53 |
| Age | 15-17 years | 5 | 1.32 | | Smartphones & Laptops | 63 | 16.67 |
| | 17-19 years | 39 | 10.32 | | Ipad | 1 | 0.26 |
| | 19-21 years | 106 | 28.04 | | Smartphones, Laptops & Ipad | 4 | 1.06 |
| | Over 21 years | 229 | 60.58 | Join Social Media | <3 months ago | 4 | 1.06 |
| Data Package Fee | Below 50,000 | 26 | 6.88 | | 3 - 6 months ago | 5 | 1.32 |
| | 50,001 - 75,000 | 83 | 21.96 | | 7 - 12 months ago | 8 | 2.12 |
| | 75,001 - 100,000 | 92 | 24.34 | | 13 years ago | 26 | 6.88 |
| | 100,001-150,000 | 95 | 25.13 | | 3 - 6 years ago | 115 | 30.42 |
| | 150,001 - 200,000 | 56 | 14.81 | | 6 - 8 years ago | 202 | 53.44 |
| | Over 200,000 | 27 | 7.14 | | above 8 years | 18 | 4.76 |

**Table 3. Distribution of respondents' responses on social media needs variables**

| Statement | SS (%) | S (%) | N (%) | TS(%) | STS (%) | Average | % Score | SD |
|---|---|---|---|---|---|---|---|---|
| I follow developments on social media | 25.93 | 28.31 | 35.98 | 7.94 | 1.85 | 3.69 | 73.70 | 1,003 |
| Social media gives me pleasure | 26.46 | 33.33 | 33.33 | 5.82 | 1.06 | 3.78 | 75.66 | 0.939 |
| Social media provides comfort for me | 15.34 | 33.60 | 44.71 | 5.56 | 0.79 | 3.57 | 71.43 | 0844 |
| I find pleasure in social media | 15.34 | 31.75 | 43.39 | 8.73 | 0.79 | 3.52 | 70.42 | 0.884 |
| I feel that I can entertain myself when I am active on social media | 26.19 | 32.01 | 30.16 | 10.05 | 1.59 | 3.71 | 74.23 | 1,014 |
| I think social media has entertainment value | 28.31 | 30.42 | 30.16 | 10.05 | 1.06 | 3.75 | 74.97 | 1,011 |
| With social media, I have an account that I can control myself | 44.71 | 24.34 | 24.07 | 5.82 | 1.06 | 4.06 | 81.16 | 1,008 |
| I communicate both ways with my friends on social media | 37.30 | 33.33 | 22.22 | 6.08 | 1.06 | 4.00 | 79.95 | 0.968 |
| I maintain face-to-face communication with friends, even though there is communication with social media | 37.04 | 29.89 | 26.98 | 5.03 | 1.06 | 3.97 | 79.37 | 0.968 |
| Social media can be a medium for presenting oneself | 16.40 | 24.07 | 38.36 | 16.93 | 4.23 | 3.31 | 66.30 | 1,067 |
| **Personal Integrative Needs (PIN)** | **27.30** | **30.11** | **32.94** | **8.20** | **1.46** | **37.36** | **74.72** | **7,362** |
| I use social media to be trusted by others | 4.76 | 17.72 | 39.15 | 24.60 | 13.76 | 2.75 | 55.03 | 1,051 |
| I use social media to make other people believe about me | 4.50 | 22.49 | 37.57 | 24.87 | 10.58 | 2.85 | 57.09 | 1,029 |
| I use social media so that other people can follow me in using social media | 9.52 | 31.48 | 26.46 | 20.11 | 12.43 | 3.06 | 61.11 | 1,181 |
| I use social media for my benefit in communicating with my environment. | 30.95 | 40.74 | 18.52 | 6.35 | 3.44 | 3.89 | 77.88 | 1,025 |
| I use social media to be able to meet new people around me | 21.16 | 38.89 | 28.04 | 8.20 | 3.70 | 3.66 | 73.12 | 1,019 |
| I use social media to be able to actively participate in discussion forums on social media | 18.52 | 30.95 | 32.28 | 13.49 | 4.76 | 3.45 | 68.99 | 1,085 |
| **Social Integrative Needs (SIN)** | **14.90** | **30.38** | **30.34** | **16.27** | **8.11** | **19.66** | 65.54 | **4,578** |
| By doing social media, I feel close to my friends | 16.40 | 33.07 | 36.24 | 11.11 | 3.17 | 3.48 | 69.68 | 0.997 |
| With social media, I feel a close bond with my friends | 12.17 | 36.51 | 35.45 | 10.85 | 5.03 | 3.40 | 67.99 | 1,002 |
| With social media, I feel a brotherhood with my friends | 10.58 | 36.77 | 37.04 | 11.38 | 4.23 | 3.38 | 67.62 | 0.965 |
| With social media, I feel I belong together with my friends | 10.85 | 34.92 | 35.98 | 12.70 | 5.56 | 3.33 | 66.56 | 1,014 |
| With social media, I always feel a sense of togetherness in the group | 10.58 | 35.45 | 36.24 | 11.11 | 6.61 | 3.32 | 66.46 | 1,026 |
| I spend time with my friends in groups on social media | 8.99 | 35.19 | 32.54 | 15.08 | 8.20 | 3.22 | 64.34 | 1,071 |
| I socialize with each other through social media | 20.90 | 37.83 | 29.10 | 9.79 | 2.38 | 3.65 | 73.02 | 0.993 |
| Using social media, is able to entertain myself | 18.25 | 43.12 | 28.04 | 7.94 | 2.65 | 3.66 | 73.28 | 0.953 |
| Using social media, is able to arouse my imagination | 17.20 | 37.04 | 26.19 | 17.20 | 2.38 | 3.49 | 69.89 | 1,041 |
| Using social media, is able to please me | 17.20 | 38.89 | 32.01 | 10.05 | 1.85 | 3.60 | 71.90 | 0.948 |
| Using social media, is able to make myself happy | 13.76 | 36.77 | 35.19 | 11.38 | 2.91 | 3.47 | 69.42 | 0.964 |
| Using social media, makes it a place to play for myself | 13.23 | 28.57 | 29.37 | 20.63 | 8.20 | 3.18 | 63.60 | 1,149 |
| Using social media allows me to stay away from my family | 11.11 | 17.46 | 25.40 | 26.46 | 19.58 | 2.74 | 54.81 | 1,266 |
| Using social media, allows me to stay away from the problems I face | 7.94 | 19.31 | 28.04 | 24.60 | 20.11 | 2.70 | 54.07 | 1,215 |
| Using social media, allows me to gossip without having to meet the other person I'm talking to | 12.96 | 23.54 | 28.84 | 23.02 | 11.64 | 3.03 | 60.63 | 1,205 |
| Using social media is possible as my escape. | 12.70 | 22.22 | 29.63 | 19.05 | 16.40 | 2.96 | 59.15 | 1,257 |
| **Tension Relesase Integrative Needs (TRIN)** | **14.06** | **31.47** | **31.05** | **15.63** | **7.79** | **52.62** | **65.78** | **11,337** |

**Table 4. Distribution of respondents' responses on social media choice variables**

| Statement | SS (%) | S (%) | N (%) | TS (%) | STS (%) | Average | % Score | SD |
|---|---|---|---|---|---|---|---|---|
| Social media helps us to reach mutual agreement | 21.69 | 29.37 | 33.86 | 10.32 | 4.76 | 3.53 | 70.58 | 1,085 |
| Social media helps our environment achieve something together | 21.16 | 28.31 | 35.71 | 10.32 | 4.50 | 3.51 | 70.26 | 1,073 |
| Social media helps us communicate among friends in a group | 17.99 | 31.48 | 40.74 | 7.14 | 2.65 | 3.55 | 71.01 | 0.955 |
| Social media helps us to communicate quickly among friends in a group | 26.19 | 30.69 | 37.04 | 3.97 | 2.12 | 3.75 | 74.97 | 0.960 |
| Social media helps us to make communication easier at work | 25.66 | 33.60 | 34.92 | 3.97 | 1.85 | 3.77 | 75.45 | 0.939 |
| Social media helps us understand each other. | 18.78 | 28.04 | 41.01 | 7.67 | 4.50 | 3.49 | 69.79 | 1,025 |
| Social media has facilities in various languages used | 27.25 | 34.92 | 30.69 | 4.50 | 2.65 | 3.80 | 75.93 | 0.979 |
| **Social Media Richness (MR)** | **22.68** | **30.91** | **36.28** | **6.84** | **3.29** | **25.40** | 72.57 | **5,591** |
| I use social media, to communicate in the interests of the community | 28.04 | 31.48 | 32.01 | 5.82 | 2.65 | 3.76 | 75.29 | 1,009 |
| I use social media to communicate, so that my friends follow my steps. | 10.32 | 22.49 | 36.51 | 23.81 | 6.88 | 3.06 | 61.11 | 1,073 |
| I use social media referenced by my friends. | 8.99 | 20.37 | 34.66 | 26.72 | 9.26 | 2.93 | 58.62 | 1,095 |
| I use social media to honor my friends who used it first. | 8.47 | 22.22 | 31.22 | 17.99 | 20.11 | 2.81 | 56.19 | 1,230 |
| In my opinion, the number of social media users in general is increasing | 34.92 | 28.04 | 29.63 | 5.29 | 2.12 | 3.88 | 77.67 | 1,018 |
| The number of social media users in my community is increasing | 30.16 | 31.22 | 31.75 | 5.03 | 1.85 | 3.83 | 76.56 | 0.980 |
| We use social media to communicate with each other in the community | 26.46 | 35.19 | 31.22 | 4.76 | 2.38 | 3.79 | 75.71 | 0.969 |
| We use social media to exchange information in the community. | 28.04 | 32.54 | 35.71 | 2.91 | 0.79 | 3.84 | 76.83 | 0.896 |
| **Crical Mass (CM)** | **21.92** | **27.94** | **32.84** | **11.54** | **5.75** | **27.90** | 69.75 | **5,755** |

**Table 5. Distribution of respondents' responses on social media innovation characteristics variables**

| Statement | SS (%) | S (%) | N (%) | TS (%) | STS (%) | Average | % Score | SD |
|---|---|---|---|---|---|---|---|---|
| The social media I use can expand my network | 29.10 | 35.98 | 30.16 | 3.17 | 1.59 | 3.88 | 77.57 | 0.922 |
| The social media I use can increase my productivity. | 16.40 | 36.51 | 38.89 | 5.03 | 3.17 | 3.58 | 71.59 | 0.930 |
| The social media that I use can improve myself | 14.02 | 32.28 | 41.53 | 8.99 | 3.17 | 3.45 | 68.99 | 0.957 |
| The social media I use can expand my circle of friends. | 21.43 | 35.19 | 36.24 | 5.56 | 1.59 | 3.69 | 73.86 | 0.922 |
| **Relative Advantage (RA)** | **20.25** | **35.01** | **36.73** | **5.69** | **2.32** | **14.60** | 73.04 | **3,296** |
| The social media I use fits my lifestyle | 18.52 | 35.45 | 35.98 | 6.61 | 3.44 | 3.59 | 71.80 | 0.976 |
| The social media that I use correspond to aspects of my life | 15.08 | 32.54 | 40.48 | 9.26 | 2.65 | 3.48 | 69.63 | 0.947 |
| The social media that I use are compatible with other social media. | 15.08 | 33.60 | 34.92 | 11.38 | 5.03 | 3.42 | 68.47 | 1,038 |
| **Compatibility (CMPT)** | **16.23** | **33.86** | **37.13** | **9.08** | **3.70** | **10.49** | 69.96 | **2,596** |
| The social media I use have a lot of complexity | 6.61 | 13.23 | 26.46 | 35.45 | 18.25 | 2.54 | 50.90 | 1,130 |
| The social media I use is difficult to understand | 6.35 | 10.58 | 21.96 | 35.71 | 25.40 | 2.37 | 47.35 | 1,156 |
| The social media I use is difficult to use | 6.08 | 10.05 | 24.60 | 33.60 | 25.66 | 2.37 | 47.46 | 1,147 |
| The social media that I use have too many features to use | 7.41 | 21.43 | 29.89 | 25.40 | 15.87 | 2.79 | 55.82 | 1,166 |
| **Complexity (CMPL)** | **6.61** | **13.82** | **25.73** | **32.54** | **21.30** | **10.08** | 50.38 | **4,052** |
| I use social media, giving me the opportunity to be able to try all the available features. | 14.02 | 35.71 | 39.68 | 6.35 | 4.23 | 3.49 | 69.79 | 0.956 |
| I use social media, it's easy to register. | 17.99 | 37.57 | 35.19 | 6.61 | 2.65 | 3.62 | 72.33 | 0.943 |
| **Triability (TRIA)** | **16.01** | **36.64** | **37.43** | **6.48** | **3.44** | **7.11** | 71.06 | **1,745** |
| Through social media, my activities can be seen by other people. | 16.14 | 37.30 | 33.86 | 7.14 | 5.56 | 3.51 | 70.26 | 1,025 |
| Through social media, my activities can be noticed by other people. | 16.14 | 31.22 | 38.36 | 9.26 | 5.03 | 3.44 | 68.84 | 1,029 |
| Through social media, other people can respond to my status. | 20.90 | 32.28 | 34.92 | 7.41 | 4.50 | 3.58 | 71.53 | 1,041 |
| **Observability (OBSV)** | **17.72** | **33.60** | **35.71** | **7.94** | **5.03** | **10.53** | 70.21 | **2,877** |

**Table 6. Distribution of respondents' responses on social media acceptance variables**

| Statement | SS (%) | S (%) | N (%) | TS (%) | STS (%) | Average | % Score | SD |
|---|---|---|---|---|---|---|---|---|
| Social media provides faster interactions | 25.66 | 33.86 | 35.45 | 4.76 | 0.26 | 3.80 | 75.98 | 0.887 |
| Social media improves interaction performance. | 19.05 | 38.89 | 34.66 | 5.29 | 2.12 | 3.67 | 73.49 | 0.914 |
| Social media increases productivity in interactions. | 22.75 | 32.28 | 36.51 | 7.41 | 1.06 | 3.68 | 73.65 | 0.941 |
| Social media makes interactions more effective | 22.49 | 38.10 | 31.48 | 6.88 | 1.06 | 3.74 | 74.81 | 0.919 |
| Social media makes interaction easier. | 25.93 | 37.30 | 32.54 | 3.44 | 0.79 | 3.84 | 76.83 | 0.878 |
| **Perceived Usefulness (PU)** | **23.17** | **36.08** | **34.13** | **5.56** | **1.06** | **18.74** | 74.95 | **4,012** |
| The social media I use are easy to learn | 28.04 | 38.62 | 28.57 | 3.97 | 0.79 | 3.89 | 77.83 | 0.887 |
| The social media I use are easy to control | 25.93 | 39.68 | 29.10 | 4.50 | 0.79 | 3.85 | 77.09 | 0.885 |
| The social media I use are easy to understand | 28.84 | 39.15 | 27.51 | 3.70 | 0.79 | 3.92 | 78.31 | 0.882 |
| The social media that I use is quite flexible | 26.98 | 40.48 | 27.78 | 3.70 | 1.06 | 3.89 | 77.72 | 0.883 |
| The social media I use makes it easy to be skilled at using it | 25.66 | 37.57 | 32.54 | 3.97 | 0.26 | 3.84 | 76.88 | 0861 |
| The social media that I use, have the easiest to use. | 26.19 | 42.33 | 27.25 | 3.70 | 0.53 | 3.90 | 77.99 | 0850 |
| **Perceived Easy Of Use (PEoU)** | **26.94** | **39.64** | **28.79** | **3.92** | **0.71** | **23.29** | 77.64 | **4,971** |
| In my opinion, using social media is a good idea | 21.69 | 43.12 | 30.16 | 4.76 | 0.26 | 3.81 | 76.24 | 0836 |
| In my opinion, using social media is a great idea | 18.78 | 35.19 | 30.16 | 15.34 | 0.53 | 3.56 | 71.27 | 0.981 |
| In my opinion, using social media is a positive thing | 17.99 | 36.24 | 41.53 | 3.44 | 0.79 | 3.67 | 73.44 | 0846 |
| **Attitude Toward Using (ATU)** | **19.51** | **38.22** | **33.98** | **7.86** | **0.44** | **11.04** | 73.70 | **2,321** |
| I will stick with social media for a long time | 20.63 | 42.33 | 31.75 | 3.44 | 1.85 | 3.76 | 75.29 | 0880 |
| Now and in the future, I still love to use social media. | 19.31 | 41.01 | 33.07 | 5.03 | 1.59 | 3.71 | 74.29 | 0.888 |
| I use social today and in the future as a medium for communication | 23.81 | 38.89 | 32.01 | 4.23 | 1.06 | 3.80 | 76.03 | 0.886 |
| **Behavior of Intentions (BI)** | **21.25** | **40.74** | **32.28** | **4.23** | **1.50** | **11.28** | 75.20 | **2,445** |

**Table 7. Distribution of respondents' responses on social media use variables**

| Statement | SS (%) | S (%) | N (%) | TS (%) | STS (%) | Average | % Score | SD |
|---|---|---|---|---|---|---|---|---|
| I use social media every day | 24.60 | 33.33 | 32.54 | 7.67 | 1.85 | 3.71 | 74.23 | 1,000 |
| **Frequency (FRE)** | **24.60** | **33.33** | **32.54** | **7.67** | **1.85** | **3.71** | 74.23 | **1,000** |
| Every time I use my social media, it takes a relatively long time | 20.37 | 28.57 | 37.57 | 10.58 | 2.91 | 3.53 | 70.58 | 1,023 |
| **Duration (DUR)** | **20.37** | **28.57** | **37.57** | **10.58** | **2.91** | **3.53** | 70.58 | **1,023** |
| I use social media to communicate with my family | 25.66 | 31.48 | 31.48 | 8.47 | 2.91 | 3.69 | 73.70 | 1,037 |
| I use social media to communicate with old friends | 27.78 | 32.28 | 32.01 | 6.61 | 1.32 | 3.79 | 75.71 | 0.969 |
| I use social media to communicate with colleagues | 25.13 | 38.10 | 29.37 | 6.61 | 0.79 | 3.80 | 76.03 | 0.919 |
| I use social media to communicate with my college friends. | 28.04 | 28.04 | 36.51 | 6.35 | 1.06 | 3.76 | 75.13 | 0.968 |
| **Communication Activities (COAC)** | **26.65** | **32.47** | **32.34** | **7.01** | **1.52** | **15.03** | 75.15 | **3,544** |
| I use social media to update my status all the time. | 13.49 | 20.11 | 30.69 | 22.75 | 12.96 | 2.98 | 59.68 | 1,221 |
| I use social media to upload photos. | 14.81 | 26.19 | 34.13 | 17.46 | 7.41 | 3.24 | 64.71 | 1,128 |
| I use social media to upload videos | 15.34 | 24.07 | 29.89 | 21.69 | 8.99 | 3.15 | 63.02 | 1,188 |
| I use social media to find information | 32.80 | 40.21 | 21.16 | 4.50 | 1.32 | 3.99 | 79.74 | 0.917 |
| **Personal Activities (PSAC)** | **19.11** | **27.65** | **28.97** | **16.60** | **7.67** | **13.36** | 66.79 | **3,561** |
| I use social media to increase the number of friends. | 22.75 | 35.45 | 32.54 | 7.41 | 1.85 | 3.70 | 73.97 | 0.963 |
| I use social media to join various communities | 21.69 | 32.80 | 33.86 | 9.79 | 1.85 | 3.63 | 72.54 | 0.989 |
| I use social media to upload videos | 18.52 | 26.72 | 35.19 | 15.34 | 4.23 | 3.40 | 67.99 | 1,084 |
| I use social media to find information | 24.60 | 29.63 | 34.92 | 7.94 | 2.91 | 3.65 | 73.02 | 1,027 |
| **Connectivities (CON)** | **21.89** | **31.15** | **34.13** | **10.12** | **2.71** | **14.38** | 71.88 | **3,334** |

**Table 8. Confirmatory Factor Analysis (CFA) constructs**

| Construct | Std. Loading | T-Values | (Std. Loading) 2 | Error | CR | VE |
|---|---|---|---|---|---|---|
| PIN | 0.888 | | 0.789 | 0.211 | 0.932 | 0820 |
| SIN | 0890 | 25,703 | 0.792 | 0.208 | | |
| TRIN | 0.938 | 29,037 | 0880 | 0.120 | | |
| MR | 0871 | | 0.759 | 0.241 | 0879 | 0.783 |
| CM | 0.899 | 4,435 | 0.808 | 0.192 | | |
| RA | 0.924 | | 0854 | 0.146 | 0.921 | 0.745 |
| CMPT | 0.873 | 26,991 | 0.762 | 0.238 | | |
| TRIA | 0827 | 23,695 | 0.684 | 0.316 | | |
| OBSV | 0.825 | 23,525 | 0.681 | 0.319 | | |
| PU | 0.926 | | 0.857 | 0.143 | 0.926 | 0.758 |
| PEoU | 0.899 | 29,401 | 0.808 | 0.192 | | |
| ATU | 0.775 | 20,705 | 0.601 | 0.399 | | |
| THAT | 0.875 | 27,262 | 0.766 | 0.234 | | |
| FRK | 0871 | | 0.759 | 0.241 | 0.913 | 0.678 |
| DUR | 0.737 | 17,398 | 0.543 | 0.457 | | |
| COAC | 0897 | 24,669 | 0.805 | 0.195 | | |
| PSAC | 0.737 | 17,400 | 0.543 | 0.457 | | |
| CON | 0861 | 22,743 | 0.741 | 0.259 | | |

**Table 9. Model fit test (goodness of fit)**

| Indices | GoF Index | Cut off Value | Result | Model evaluation |
|---|---|---|---|---|
| **Absolute Fit Indices** | χ2 | <2f or <3f | 125; 239.63 | Good |
| | GFI | ≤ 0.08 (Brown & Curdeck, 1993) | 0.063 | Good |
| | RMSEA | 0.80 <GFI <0.90 | 0.88 | Good |
| **Incremental Fit Indices** | AGFI | ≥ 0.90 (Hair, 1995) | 0.798 | Not good |
| | CFI | ≥ 0.90 (Bentler, 1990) | 0.977 | Good |
| | NFI | > 0.90 (Bentler, 1990) | 0.972 | Good |
| **Parsimony Fit Indices** | AIC | <AIC Saturated (S) and Independence Model (IM) | 1051,629<br>S = 342,000<br>IM = 27512,855 | *Not good* |
| | ECVI | <ECVI Saturated (S) and Independence Model (IM) | 0.789<br>S = 0.907<br>IM = 72,978 | Good |
| | PGFI | > 0.5 | 0.67 | Good |
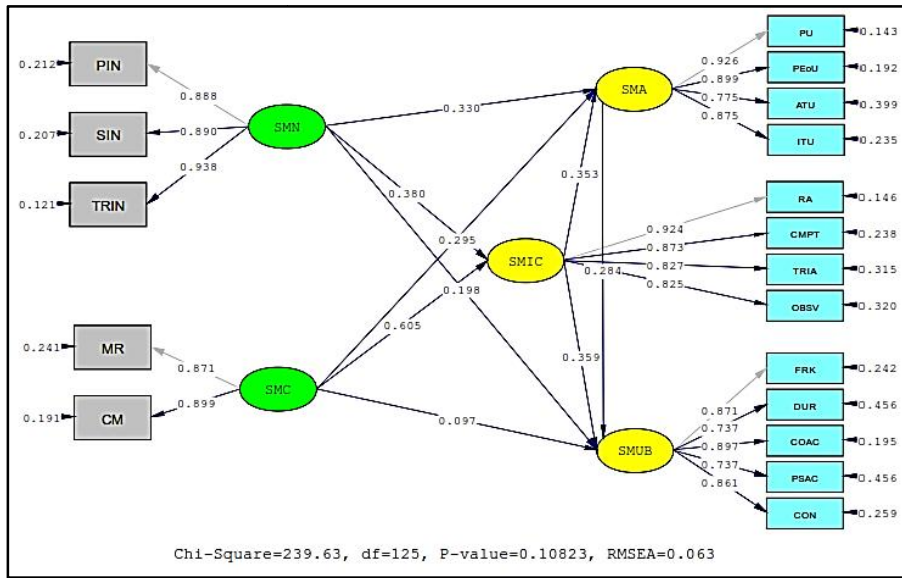
**Fig. 2. Coefficient of standardized structural model**
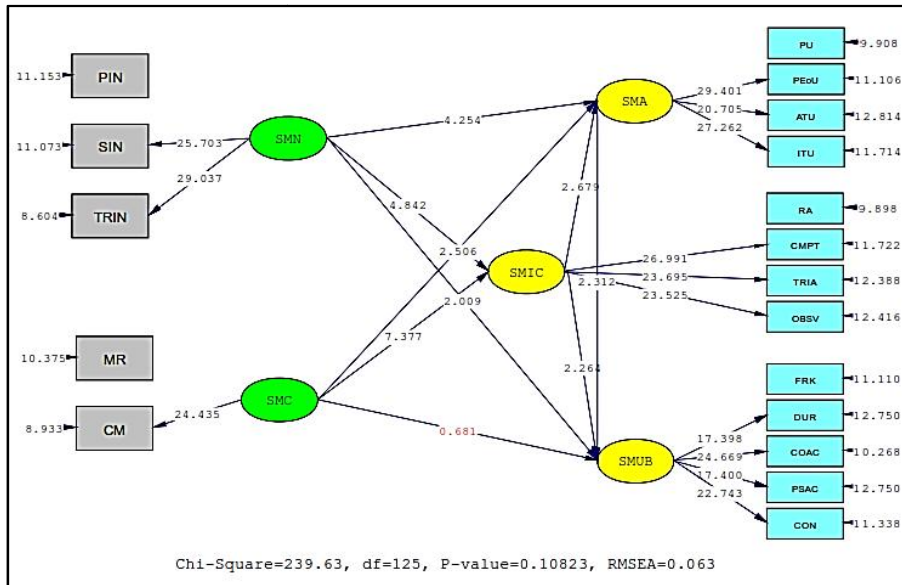


**Fig. 3. T-test of standardized structural model**

**Table 10. Latent variable partial test results**

| Variable | Influence Coefficient | t-count | Conclusion |
|---|---|---|---|
| SMIC←SMN | 0.380 | 4,842 | Has a significant effect |
| SMIC← SMC | 0.605 | 7,377 | Has a significant effect |
| SMA I←SMN | 0.330 | 4,254 | Has a significant effect |
| SMA ← SMC | 0.295 | 2,506 | Has a significant effect |
| SMUB← SMN | 0.198 | 2009 | Has a significant effect |
| SMUB←SMC | 0.097 | 0.681 | Has no significant effect |
| SMA ← SMIC | 0.353 | 2,679 | Has a significant effect |
| SMUB← SMIC | 0.359 | 2,264 | Has a significant effect |

As for the structural model that is formed from the results of data processing using SEM is as follows.

Based on the structural model image and the values shown in the figure above, then a partial test of the relationship between exogenous latent variables and endogenous latent variables is carried out, as shown in the following table.

Partially it shows that the causality tendency between exogenous latent variables and endogenous latent variables in this research in average has a significant effect, except for the effect of social media choice (SMC) on social media uses behavior (SMUB) which is not directly significant. This means that the choice of social media does not have much influence on the behavior of using social media for the respondents.

## 4.5 Hypothesis Test

Furthermore, to measure the tendency of causality to influence with exogenous latent variables on endogenous variables as in the hypothesis in this research, it is done by analyzing the determinant value and the F test value.

### 4.5.1 Results of the analysis of the value of determination and the F test on the direct effect of exogenous variables on endogenous variables

#### 4.5.1.1 The influence of social media needs and choices on social media acceptance

Based on Table 11, testing the first hypothesis (H1) shows that the results of the F test are obtained Fcount = 93,250> Ftable = 0.995, thus testing the hypothesis proves that social media needs and choices have a significant effect on social media acceptance. The magnitude of the contribution of influence is indicated by a determinant value of 0.575, meaning that social media needs and choices contribute 57.5 to social media acceptance, and the rest is influenced by other factors not present in this study.

The finding of the joint influence of social media needs and choice factors on social media acceptance can be interpreted that factors within

the individual (one's need for media) and factors outside the individual ("consideration" of individual outside influences in choosing media) are part of the motive for accepting media. social media so that there is an intention to use social media. This research also found the dominance of the influence of the media needs motive in contributing to acceptance, meaning that consideration in social media acceptance is more influenced by individual factors, in this case, personal needs, social needs and tension-releasing needs rather than considerations of media wealth and critical mass. by these social media.

#### 4.5.1.2 The influence of social media needs and choices on social media use

Based on Table 11, the second hypothesis testing (H2) shows that the results of the F test are obtained Fcount = 67,200> Ftable = 0.995, thus testing the hypothesis proves that social media needs and choices have a significant effect on social media use. The magnitude of the contribution of influence is indicated by a determinant value of 0.258, meaning that the social media needs and choice variables contribute an influence of 25.8 to the social media use behavior variable, and the rest is influenced by other variables not in this study.

This second hypothesis finds a co-influence on the factors of social media needs and choices on social media use. This can be interpreted that factors within the individual (someone's need for media) and factors outside the individual ("consideration" of individual external influences in choosing media) are part of the motive for being able to use social media. In real terms even in their use behavior both in terms of frequency and duration of use, personal activities, communication activities and in terms of connectivity. Partially it shows that there are two different findings on the factor of media richness in influencing the use of media media, and the results of research conducted on students of the Communication Science Program in DKI Jakarta show a weak or insignificant influence on the media choice factor, which is likely to be more influenced by the elements. media wealth. However, the findings show that together the two factors, namely needs and choices, influence the use of social media.

**Table 11. F-test results and determination of the effect of exogenous variables on endogenous variables**

| Hypothesis | Endogenous Variables | Exogenous Variables | Correlation (r) | Influence Coefficient $(\gamma)$ | Ri2 | $\zeta 1$ | F |
|---|---|---|---|---|---|---|---|
| H1 | SMA $(\eta 2)$ | SMN $(\xi 1)$ | 0.917 | 0.330 | 0.303 | 0.425 | 93,250 |
| | | SMC $(\xi 2)$ | 0.922 | 0.295 | 0.272 | | |
| | | Total Determination (R2) | | | 0.575 | | |
| H2 | SMUB $(\eta 3)$ | SMN $(\xi 1)$ | 0.874 | 0.198 | 0.173 | 0.642 | 67,200 |
| | | SMC $(\xi 2)$ | 0.873 | 0.097 | 0.085 | | |
| | | Total Determination (R2) | | | 0.258 | | |

*Information: Ftable (0.05; 4; 372) = 0.995*

**4.5.2 The results of the analysis of the determinant value and the F test on the direct effect of exogenous variables on endogenous variables through intervening variables**

*4.5.2.1 The influence of social media needs and choices on social media acceptance through innovation characteristics*

Based on Table 12, testing the third hypothesis (H3) shows that the results of the F test are obtained Fcount = 92.109> Ftable = 0.995, thus hypothesis testing proves that social media needs and choices have a significant effect on social media acceptance through the characteristics of innovation. The magnitude of the contribution of influence is indicated by a determinant value of 0.323, meaning that the variable of social media needs and choices through the innovation characteristics variable contributes an influence of 32.3 to the social media acceptance variable, and the rest is influenced by other variables not in this study.

The results of the third hypothesis, find the role of innovation characteristics that social media have in social media acceptance. The characteristics of innovation (relative advantage, compatibility, triability and observability) possessed by social media provide a trigger for the influence of social media needs and choices on social media acceptance, according to [54] the diffusion of innovation as an acceleration in technology adoption and this research finding that the characteristics of innovation are good mediators in the influence of needs on social media adoption. This study develops what Zolkepli has done and becomes a special finding by involving media choice factors as part of the consideration of social media acceptance and the characteristics of innovation provide significant reinforcement in influencing this acceptance. Finally, the model built in this study explains that the relative advantages,

compatibility, triability and observability of social media become reinforcement in considering whether to accept social media or not based on individual needs, social needs, tension-releasing needs, media wealth and critical mass. social media influencing it.

*4.5.2.2 The influence of social media needs and choices on social media use through innovation characteristics*

Based on Table 12, testing the fourth hypothesis (H4) shows that the results of the F test are obtained Fcount = 93.109> Ftable = 0.995, thus testing the hypothesis proves that social media needs and choices have a significant effect on the use of social media through the characteristics of innovation. The magnitude of the contribution of influence is indicated by the value of determination of 0.317. The magnitude of the contribution of influence is indicated by a determinant value of 0.317, meaning that the variable of social media needs and choices through the innovation characteristics variable contributes an influence of 32.3 to the behavior pattern variable of social media use, and the rest is influenced by other variables not in this research.

The findings of the fourth hypothesis testing are not much different from the third hypothesis because in this research, adoption develops in two meanings, namely acceptance and use in real terms. The role of innovation characteristics in this model becomes more significant, especially on the influence of media choice on the use of social media, where the direct influence is insignificant, but on the use of a mediator, the characteristics of this innovation are significant. This means that in this model it is clearly seen the important role of the characteristics of innovation, thus causing the model to be simultaneously meaningful or significant. For this reason, this model can explain the role of relative advantage and compatibility.

**Table 12. F-test results and determination of the influence of social media needs and choices on social media acceptance through the characteristics of innovation**

| Endogenous Variables | Intervening Variables | Exogenous Variables | Influence Coefficient ($\rho$) | $Ri2$ | $\zeta1$ | F |
|---|---|---|---|---|---|---|
| SMA ($\eta2$) | SMIC ($\eta1$) | SMN ($\xi1$) | 0.134 | 0.125 | 0.673 | 92,109 |
| | | SMC ($\xi2$) | 0.213 | 0.198 | | |
| | | Total Determination (R2) | 0.323 | | | |
| SMUB ($\eta3$) | SMIC ($\eta1$) | SMN ($\xi1$) | 0.136 | 0.122 | 0.683 | 93,250 |
| | | SMC ($\xi2$) | 0.217 | 0.195 | | |
| | | Total Determination (R2) | 0.317 | | | |

*Information: Ftable (0.05; 4; 372) = 0.995*

## 5. CONCLUSIONS AND SUGGESTIONS

### 5.1 Conclusion

Based on the findings of this study, it shows some proof of the hypothesis, including:

1. That media needs and choices have a significant influence on social media acceptance. This shows that students accept social media by assessing it based on benefits, ease of use so that there is an attitude and intention to use it is influenced by the factor of the need for social media both for personal, social needs or because they want to release tension. Likewise with the choice of social media, students accept social media because of the wealth factor of the social media they have, where media wealth is emphasized more on its ability to take several actions, besides that the critical period (condition of the number of achievements of social media users) is also a consideration for accepting social media. The contribution of influence is dominated by the need factor.

2. That media needs and choices have a significant influence on social media usage behavior. This means that the factors of media need and media choice have an influence on students' behavior towards the use of social media, including in the frequency and duration of use, individual activities, social activities (communicating) and connectivity. Partially the choice of media does not contribute significantly (insignificant), as well as media needs also make a small contribution. This reearch shows that there are other factors, which are more dominant in influencing students to use social media.

3. That media needs and choices through the characteristics of innovation have a significant effect on social media acceptance. This shows that the characteristics of innovation or characteristics possessed by social media, including relative superiority, compatibility, triability and observability, can trigger factors in this research to accelerate social media acceptance. Contribution is more dominant in the trigger factor of media choice on social media acceptance.

4. That media needs and choices through the characteristics of innovation have a significant influence on social media usage behavior. This shows that the characteristics of social media act as a trigger or intervening in influencing the behavior of using social media. The findings show that partially the choice of social media through the characteristics of innovation is a significant result in influencing the behavior of using social media, where previously the effect was not significant.

5. In connection with the explanation above, it can be concluded that the acceptance and behavior of using social media by students can be influenced by factors of social media needs and choices, both directly and indirectly. Meanwhile, the characteristics of innovation, which are characteristics of social media function as a trigger or intervening in accelerating acceptance and behavior of using social media in students.

### 5.2 Suggestions

The results of this study found that social media needs and choices have a direct or indirect influence on the acceptance and use of social media. In relation to these findings, suggestions can be made:

1. For the academic environment, these results can become a reference for expanding knowledge related to

understanding of CMC, Uses & Grattification Theory, Media Richness Theory, Critical Mass Theory, Diffusion of Innovation Theory and Technology Acceptance Modeling and their relationship, especially in the use of social media.

2. For practitioners, especially in marketing, the results of this study can be a reference for understanding customers in the use of social media and the factors that generate use so that marketers are able to create better marketing strategies.

## CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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