



Research article

Uses and gratifications approach: influence of COVID-19 media exposure on millennial generation in Makassar city, Indonesia

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ABSTRACT

This study aims to analyze the effect of COVID-19 message exposure through the use of conventional media and new media based on indicators of frequency, duration, and consistency. Analysis of gratifications based on indicators seeking information, social interaction, and education. This study analyzes the uses and gratifications theory through conventional and new media exposure to COVID-19 pandemic information exposure. The quantitative research method tests the theory of uses and gratifications that is based on indicators of research variables. The determination of respondents is completed through probability sampling comprises of 384 respondents. Research data is analyzed with the inferential statistics with the ANOVA formula analysis. The results showed that the three indicators of satisfaction fulfillment testing indicators, namely seeking information, social interaction, and education are in middle satisfaction. The results of the regression analysis test showed that there was a positive influence on variable X (media exposure) on the level of respondent satisfaction (Y). The results of the coefficient of determination are 0.588 conventional media and the determination of new media of 0.553 is the level of satisfaction of respondents. The validity and accuracy of the uses and gratifications theory in the exposure to the COVID-19 message and respondent satisfaction are positively correlated. The research specifications of the uses and gratifications approach in the era of the COVID-19 pandemic prove that conventional media is still needed by millennials in the search for information after the development of new media.

1. Introduction

The development of communication and information technology led to the evolution of media entering aspects of human life. Media ecology evolved from conventional or mainstream media, such as television, radio, film, newspapers, and magazines that transformed into the era of media convergence. The digitization process merged the old media and new media into one. The presence of new communication technologies is used by humans in the process of searching and information sharing. The exposure to the media world causes the public to actively search for information according to their needs and satisfaction through reporting information. COVID-19 emerged as a sedition pandemic from the day first as the opportunity to spread fear, bigotry, and a new market for the medicine industry that is marketed by social media (Depoux et al., 2020).

At present, the trend of conventional media and new media is becoming the main source of information for the public, especially the millennial generation in updating cases that are trending topics, namely the Corona Virus Disease (COVID-19) outbreak. The COVID-19 type pandemic originating from China by attacking the respiratory system has

infected more than 2.7 million cases from 210 countries in the world (Worldometer, 2020). Significant increase in cases since 30 January 2020 WHO established COVID-19 status as the Public Health Emergency of International Concern (PHEIC) (World Health Organization, 2020). A significant increase in COVID-19 cases on April 18, 2020, saw an increase in 325 cases. Total positive cases of COVID-19 in Indonesia were 6,248 people. In South Sulawesi, the latest data on COVID-19 cases as of 19 April 2020 totaled 370 people with an additional 27 cases (Worldometer, 2020).

The information needs of COVID-19 cause the public, especially the millennial generation to search for information through conventional and new media. The aim is to fulfill information needs, for example trending #dirumahaja, social distancing, immunity, and updates of patients infected with COVID-19. The information is accessed by millennials i.e. children born between 1981 and 1996 are millennials (Dimock, 2019). The category of the millennial generation is born between 1982 and 2000 according to the United States Census Bureau. The millennial generation category is synonymous with information retrieval through the media.

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Using social media as a global platform without boundaries, space and time has influenced aspects of human life, such as education (Greenhow and Lewin, 2016), politics (Markham, 2016), social interaction and motivation (Ji et al., 2016; Raji et al., 2020), global health of the COVID-19 pandemic (Ahorsu et al., 2020; Gao et al., 2020; M. T. Hossain et al., 2020; Raffaetà, 2020). The analysis of the uses and gratification theory study on application usage habits is driven by user satisfaction and motivation (Hsiao et al., 2016). Specifically on Smartphone users (Gan et al., 2017), Instagram users (Ji et al., 2016), satisfaction with media use (Shiau and Luo, 2012) and contributions to aspects of social interaction (Raji et al., 2020). This aspect is the reason for the continuous use of social media (M. A. Hossain, 2019). The development of Uses and Gratifications Theory on social media users is a motivational factor, psychological factor to get information, social interaction, and forms of gratification (Ledbetter et al., 2016; Phua et al., 2017). Individuals use this motif as a medium of consumption (Igartua et al., 2020).

Focus on the millennial generation based on the latest report of January 2020 'We Are Social' is there were 175.4 million internet users. This tendency of Indonesian internet users has increased from the previous year of around 17% or 25 million. Around 64% of Indonesia's population of 2721 million uses the internet to access information in cyberspace. Furthermore, the level of activity of media users in Indonesia is around 160 million with a percentage of 59%. Data from staticca.com, Facebook's active social media users in 2020 reached 2.4 billion, 2 billion YouTube, 1.6 billion WhatsApp, 1 billion Instagram, and 340 million Twitter. This condition shows that the people of Indonesia, especially the millennial generation utilize new media in obtaining information and establishing friendships.

The diversity of new media that is used by millennials to obtain information can have a positive impact on changes in knowledge, attitudes, and behavior towards the content of media coverage. The active accesses of information in the context of the uses and gratifications theory explain the fact that the audience as users searches the media contents for their gratification. This theory is an analysis of active audiences for the needs and interests of the process of receiving media messages. There are two worlds now, the pre-COVID-19 world and post-COVID-19 world. It transformed the academic, professional, entertainment, socialization, family structure, financial scenario, healthcare system, and future sustainability (Echegaray, 2020).

Audience dependence on COVID-19 pandemic information is due to the anxiety of excessive media exposure. Social media is based on Web 2.0 technology in the form of podcasts, wikis, pictures, blogs, bookmarking, rating, and viral videos (Ismail, 2017). The uses and gratifications theory focuses on active audiences whose research applications are in conventional media, such as television, radio, newspapers, and magazines. However, this theory is still relevant as a reference in analyzing the impact of new media trends, such as social media. The results of the study analyzed the use of social applications that encourage the level of satisfaction, motivation, relationship development through a survey of 378 samples (Hsiao et al., 2016). The millennial generation's dependence on media is getting higher with the birth of social media such as Facebook, WhatsApp, WeChat, YouTube, Line, Instagram, LinkedIn and Google plus. The advantages of social networking sites (SNS) that offer creative features and services for users to represent themselves are very high (M. A. Hossain, 2019). The presence of new media increasingly shows that the audience is actively choosing media and messages that suit their needs, especially the millennial generation who are media and technology literate.

The uses and gratifications theory that was first developed by Katz, Blumler & Gurevitch focuses on active audiences and the use of media that is based on purpose. The basic assumption of the uses and gratifications theory is that the audience is actively involved in using the media. The findings of mobile gaming motives are self-realization, individual satisfaction, competition, social interaction, addiction and escape. His Findings show that the factors of increasing education and increasing age

(Bulduklu, 2019). The motivation behind this is challenges, stimulation, diversion, fantasy, competition, and social interaction. Another study found three types of social network game gratification, namely hedonic (fun, fantasy and escape), utilitarian (achievement) and social interaction (Li et al., 2015). Research on the Massively Multiplayer Online Role-Playing Games (MMORPG) community as the most popular multi-player recreational activity from the aspect of satisfaction is using the uses and gratifications theory (Chuang, 2015; Horesh and Brown, 2020).

The common desire of this time is the gratification of entertainment just for fun as TikTok's growth. The sense of escape reached 42% in this manner. Users are not only consuming content; they are also creating it in larger quantities than ever before. Creativity app usage increased by up to 90% (Snyder, 2020). The development of uses and gratifications theory found that people using the internet have information retrieval motives, interpersonal relationships who feel uncomfortable making face-to-face communication directly so that they choose social interaction through the internet. Robert Larose and Matthew Eastis can explain internet usage and add new variables of social status and identity that have the same ideas and thoughts through the internet. The internet is a tool that is constantly exploring and trying to find something new (Ahmad and Murad, 2020; Truelove et al., 2020).

The studies testing the uses and gratifications theory stems from conventional media why and how people actively search for media to meet the needs of the media. The focus of theoretical uses and gratification research has changed from new "media influences", such as social media, mobile, apps Katz, Gurevitch, and Haas. Public motivation using conventional media can affect cognitive, affective, personal integrative, social integrative, and tension release needs. This influence has also been widely applied to the uses and gratifications theory through internet testing and video games that are oriented to new media as a development of this theory (Baker et al., 2020; Beaunoyer et al., 2020).

The uses and gratifications theory using media-based motives to fulfill their needs is called the influence of the media. Audience gratification is based on satisfaction finding motives (Gratification Sought) and satisfaction obtained (Gratification Obtained). The satisfaction search model of Palmgreen and Rayburn suggested that gratification sought motives are influenced by subjective beliefs (Ruggiero, 2000). The assumption is that media access can provide satisfaction to individual audiences. Gratification sought will also arise due to the evaluation of various attributes and results from the media. Motivation factor in the search for satisfaction results in the audience using the media to get satisfaction (i.e. Gratification Obtained Model).

This study relies on an online questionnaire survey paper. The aim of the study is to carry out that during coronavirus and lockdown which causes people to stay at home and prevent them to get outside. "Who lost their jobs temporarily because of COVID-19?" how impacted social media users behave and their level of use. Dose being online for most of the aspects of life made journalists use social media more than ever before. This paper focused on Journalists because they are more intelligent to use social media and much more need to use social media regarding their jobs. For this purpose, this paper uses a survey method to collect data sample size which is 101 journalists 101 form being returned and responded by the Journalists from all of Kurdistan Region governess, and all types of media organizations such as a printer, digital, and broadcast media. So that gain the answer, do the Journalist behave and their level of using social media being changed when compared coronavirus time and before coming to this crisis (Hameed, 2020). The human opinion is influenced by five senses (Casero-Ripollés, 2020; Rochyadi-ReetZ et al., 2020) (Casero-Ripollés, 2020; Rochyadi-ReetZ et al., 2020; Zhang Y & Ma Z, 2020).

The smartphone industry is another largest growing field the enables the consumer to spend more time at home. As Facebook, Netflix and YouTube have all seen user numbers on their phone apps stagnate or fall off as their websites have grown, the data from SimilarWeb and Apptopia indicates. SimilarWeb and Apptopia both draw their traffic numbers from

several independent sources to create data that can be compared across the internet (Koeze and Popper, 2020).

The main perspective of social cognitive theory is analyzing motivation and behavior developed by Bandura (2012). The theory of social cognition focuses on humans who are driven by internal forces that are formed automatically and controlled by external stimulation. Social cognition is a system of self-organizing, proactive, self-reflection, and self-regulation as a reactive organism formed by environmental forces or hidden impulses. Bandura defines self-efficacy as a person's judgment of his ability to plan and carry out actions that lead to the achievement of certain goals. He uses the term self-efficacy to refer to beliefs about one's ability to organize and carry out actions to achieve results. Motivation and behavior of the audience are determined by social cognition through self-efficacy to take action and the purpose of meeting the needs of the information got (Bandura, 2012). Where especially in these days audiences have a media dependency, as Sandra Ball Rokeach and Melvin L. De Fleur, revealed that the audience dependence in the pandemic era of COVID-19 through the analysis of the uses and gratifications theory is interesting to analyze, especially the dependence of the media on millennial generation. The purpose of this study was to analyze the effect of COVID-19 message exposure through the application of the uses and gratifications theory by mapping conventional and new media. Mapping conventional media and new media can provide theoretical contributions in the development of the uses and gratifications theory in the COVID-19 pandemic situation.

The urgency of this research is the importance of media studies on the millennial generation as a category of active audiences in using and using media and messages according to their needs. Research that uses the uses and gratification theory focuses on how the media fulfills the personal and social needs of the audience. As a result, media dependence can have implications for changes in audience attitudes and behavior because of overexposure from the media, including social media. Utilization of uses and gratifications theory can solve research on new media technology (internet).

The purpose of this study was to analyze the effect of exposure to COVID-19 messages through the application of the uses and gratifications theory by mapping conventional and new media. Mapping of conventional media and new media can contribute theoretically to the development of the uses and gratifications theory in the COVID-19 pandemic situation.

This research is expected to contribute to being the dominant media reference used by the millennial generation during the COVID-19 pandemic. This research can also be used as a reference for studies, such as the search for satisfaction, selecting process, attention and involvement. This research is also useful in analyzing the development from conventional media to new media. Uses and Gratifications theory

can map new media as a complement to conventional media or potentially replace traditional media that have long been developed and used by the community.

2. Methods

2.1. Research design

The explanative quantitative research approach aims to analyze the trend of research variables. This study examines the uses and gratifications theory oriented towards active audiences in conventional media and new media. The study was conducted from October 2020 to May 2021 through online surveys and direct surveys with health protocols with participants. The total population was 130.666 generasi millennial and was drawn using Krejcie and Morgan tables with an error rate of 5% determined by 384 samples (Sugiyono, 2017). Sampling considerations are based on representative considerations, namely, first, the age category of students is in the range of millennial generation born between 1982 and 2000. Second, difficulties in getting respondents due to lockdown, the application of 'Working From Home,' and the increasing number of patients infected with COVID-19 in Makassar City. This strategy makes it easy for communication studies students in conducting research. The following Figure 1 is the analysis of the uses and gratifications theory test.

In the above figure Frequency measurements are based on an average range of 2–4 times a day, 5–7 times a day, 8–10 times a day, and 11–13 times a day. Measuring duration ≤ 1 h a day, 1–2 h a day, 2–3 h a day, and 3–4 h a day. Consistency is based on a range of consistent, quite consistent, inconsistent, and very inconsistent. There are three motives for measuring satisfaction fulfillment of COVID-19 information through conventional media and new media, namely seeking information, social interacting, and education. The considerations in determining the satisfaction variable is based on the varied research on the uses and gratifications theory testing on Facebook from a cross-cultural point of view conducted by Paul (2020). Whiting and Williams focus that is on testing the people who use social media for interaction, time-killing, entertainment, seeking and sharing of information, socialization, self-expression, education, surveillance, and communication (Aisar et al., 2015).

2.2. Sample design

This research selected of the millennial generation subject aged 20–24 years in Makassar City. The total population of the 20–24 year age group is 130,666, namely 67,119 men and 63,547 women (BPS-Statistiscs of Makassar Municipality, 2021). Descriptions of 384 respondents based on Krejcie and Morgan tables with an error rate of 5% (Sugiyono, 2017).

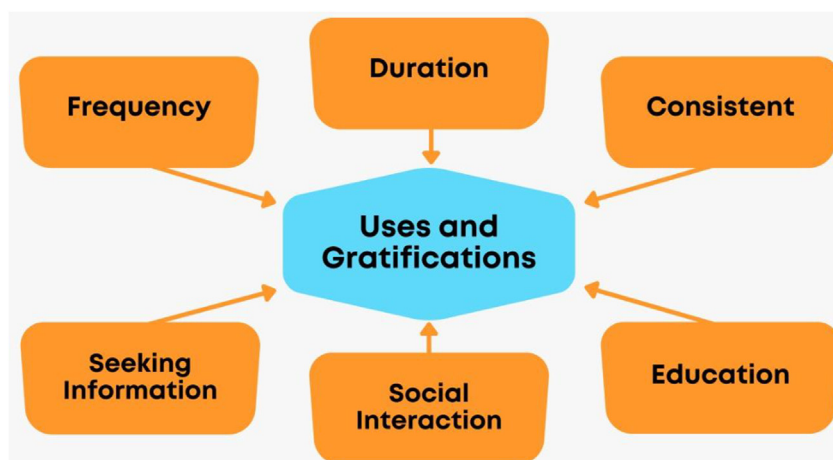


Figure 1. The effect analysis of COVID-19 information exposure.

Respondents in the millennial generation category have completed filling out data through a hybrid, namely online and face-to-face questionnaires with the standard COVID-19 health protocol because of the increasing pandemic in Makassar City, Indonesia. The sex comparison of female respondents was 248 (64.6%) female and 136 (35.4%) male. From the aspect of education level, the dominant respondents graduated from high school and had student status 190 (49.5%), graduated from high school (already working) 169 (44.0%), and high school (not yet working) 25 (6.5%). The dominant occupation characteristics are still students with 190 (49.5%), culinary business 68 (17.7%), social media marketing workers 64 (16.7%), respondents who have not worked and have no student status 25 (6.5%), media workers 17 (4.4%), and 20 part-time workers (5.2%).

The title of the ethical approval committee and respondents consent for using the questionnaire to collect data is the BPS-Statistics of Makassar *BPS-Statistics of Makassar Municipality, 2021*, 'Makassar Municipality in Figures'. Research on the influence of media exposure prioritizes respondents' consent to fill out a questionnaire to collect data. The researcher asked for consent and informed beforehand that filling out survey items took 15–25 min to complete closed and open questions which could cause psychological discomfort. Researchers give freedom to respondents to skip questions that cause feelings of discomfort.

2.3. Research analysis

The inferential statistics with the ANOVA (Analysis of Variance) formula analysis to test the correlation coefficient of exposure to COVID-19 messages through conventional media and new media on the fulfillment of respondent satisfaction analyzed data. Inferential statistical test through ANOVA formula analysis was used to find the causality of the effect between the exposures of COVID-19 messages to respondent satisfaction. This test tested the hypothesis of satisfaction with conventional media and new media.

The conventional media hypothesis is H0: there is no significant effect between seeking information, social interaction, and education (satisfaction) on the conventional media of the millennial generation. The conventional media hypothesis is H1: there is a significant influence between information seeking, social interaction, and education (satisfaction) on the conventional media of the millennial generation.

The new media hypothesis is H0: there is no significant effect between information seeking, social interaction, and education (satisfaction) on the new media of the millennial generation. The new media hypothesis is H1: there is a significant influence between information seeking, social interaction, and education (satisfaction) on the new media of the millennial generation.

The form of testing carried out is, firstly; a validity test to measure the validity of the questionnaire. The validity of the questionnaire depends on the revelation of data that is measured. According to (Sugiyono, 2017), if the questionnaire correlation coefficient is equal to 0.5 or more (at least 0.5) the instrument is valid. Second, the reliability test is a test to measure the questionnaire which is an indicator and a variable. Reliability is measured by using the Cronbach Alpha (α) statistical test. The level of instrument reliability in this study uses the Cronbach alpha coefficient, with a significance level of 0.05 ($\alpha = 5\%$). According to Sekaran in (Helmin, 2013), the Cronbach alpha coefficient value is said to be good if it has a coefficient range from 0.60 to 1.00.

3. Results

Research on the uses and gratifications theory in conventional and new media focuses on 384 respondents in the millennial generation category. Based on data from the United States Census Bureau, the age range of 19–25 years born between 1982 and 2000 is a millennial generation. The research problem is the application of the uses and gratifications theory due to the outbreak of the COVID-19 pandemic, especially in Makassar City, South Sulawesi Province. The dependence of

information on COVID-19 reporting on conventional and new media began on March 2, 2020, when the discovery of the first case in Indonesia. Significant changes in the consumption patterns of conventional and new media in the millennial generation are increasing significantly.

High-intensity COVID-19 coverage of conventional media (Television, Radio, Newspapers, Magazines, other print media) and new media (Website, Portal, Mobile App, Social Media, such as YouTube, Instagram, Twitter, Facebook, and What's App). Nielsen Television Audience Measurement (TAM) data shows the average television viewing rate increased by 12 percent on March 11, 2020, to 13.8 percent on March 18. This indicates the addition of around one million television viewers in 11 cities in Indonesia. Based on data the duration of television viewing increased by more than 40 min, from an average of 4 h 48 min on 11 March 2020 to 5 h 29 min on 18 March 2020.

Viewers from the upper class show a tendency to watch television longer since March 14 and the number continues to increase significantly. The rating is improved from 11.2 percent on March 11, 2020, to 13.7 percent on March 18, 2020 (Redaksi WE Online, 2020). New media, especially social media (YouTube, Instagram, Twitter, Facebook, and What's App) experienced the January–March 2020 trending hashtag with 145 thousand COVID-19 conversations. Community conversation rates were 12% and 11% for #dirumahaja and COVID-19 mass tests. Social distancing issues (2%) and coronavirus immunity determined by the Minister of Health of the Republic of Indonesia around (2%) (Lidwina, 2020). Data on increasing the intensity of COVID-19 reporting has changed the pattern of media consumption in all circles of society, especially the millennial generation.

3.1. Exposure to conventional media and new media

The results of the study using the use and gratification theory analysis of conventional media and new media COVID-19 information exposure show the difference between conventional and new media on respondents. Usability measurements are based on three indicators, namely frequency, duration, and consistency, as in Table 1:

The average frequency for conventional media is 2–4 times a day 139 (36.2%) and new media, such as Website or Portal, Social Media, and Mobile App averaging 11–13 times a day 229 (59.6%). The duration or length of time watching, seeing, and listening to conventional media is less than 1 h as many as 159 (41.4%), while new media 3–4 h a day was 228 (59.4%). Consistent use of conventional media was quite consistent is 185 (48.2%), while new media is consistent is 217 (56.5%).

Comparison of usability level data through exposure to new media is more dominantly used by the millennial generation based on frequency, duration, and consistency in finding COVID-19 information. Measurement indicators are based on media exposure in listening, seeing, searching, and reading communication media messages. Limits on media exposure are defined as media usage, frequency, and duration. Frequency is the use of media based on the tendency of audience dependence in search of information. The audience's dependence on the media during the COVID-19 global health crisis has different preferences based on individualistic and collectivistic cultures (Sheldon et al., 2021).

3.2. Conventional media gratifications and new media

The influence of media exposure on audiences can cause dependence. Dependency theory developed by Sandra Ball-Rokeach & Melvin L. DeFleur has a cognitive effect which is to create or eliminate ambiguity, attitude formation, and agenda-setting, expansion of community belief systems, and affirmation of values. Affective influence in the audience can cause fear or anxiety. On the other hand, behavioral influence can activate, resolve issues, and involve public participation in social conflicts. Viral news on social media is the source of information in the context of uses and gratifications theory, especially fake news sharing during COVID-19 (Apuke & Omar, 2021).

Table 1. Conventional media and new media exposure.

Conventional Media Exposure	The scale of Measurement (N = 384)			
	2-4 times a day	5-7 times a day	8-10 times a day	11-13 times a day
Frequency	139 (36.2%)	124 (32.3%)	69 (18.0%)	52 (13.5%)
	≤1 h a day	1–2 h a day	2–3 h a day	3–4 h a day
Duration	159 (41.4%)	118 (30.7%)	67 (17.4%)	40 (10.4%)
	Consistent	Quite Consistent	Inconsistent	Very Inconsistent
Consistent	126 (32.8%)	185 (48.2%)	52 (13.5%)	21 (5.5%)
New Media Exposure	The scale of Measurement (N = 384)			
	2-4 times a day	8-10 times a day	11-13 times a day	≥14 times a day
Frequency	-	60 (15.6%)	229 (59.6%)	95 (24.7%)
	1–2 h a day	2–3 h a day	3–4 h a day	≥4 h a day
Duration	-	98 (25.5%)	228 (59.4%)	58 (15.1%)
	Very Consistent	Consistent	Quite Consistent	Inconsistent
Consistent	75 (19.5%)	217 (56.5%)	92 (24.0%)	-

Source: Primary Data Analysis, 2021.

Dependence on new media that is more dominant that can cause dependence on the level of influence or strength of the media. Media exposure causes the public to actively use, find information to meet their needs. Factor information needs and anxiety about the dangers of a COVID-19 pandemic cause the public to actively choose information based on their needs. Furthermore, based on the uses and gratifications theory, it focuses on motives as independent variables that influence the use of media. Philip Palmgreen analyzes certain motives that can satisfy his needs after using the media (Ruggiero, 2000). The following characteristics of the findings of gratifications of conventional media and new media, such as the following Table 2:

The results in the above table indicate that there are three motives measured in the study of the influence of COVID-19 information exposure through conventional and new media, namely seeking information, social interaction, and education. Based on the results of conventional media research shows that seeking the information as much as 209 (54.4%), while new media as much as 229 (59.7%). Conventional social media interaction data were 216 (56.3%) and new media 228 (56.5%). Education for conventional media is 230 (59.9%), while for new media the ratio is 217 (56.5%). The motives for seeking information, social interacting, and education are in the middle satisfaction of both conventional and new media.

Indicators of three motive variables are in the middle satisfaction category both conventional and new media have specific findings based on the uses and gratifications theory. The motive factor for seeking information COVID-19 on the public has the same results on middle satisfaction, both conventional and new media. The case of the COVID-19 pandemic caused high anxiety and anxiety in the audience. The

dependency factor on audiences with high intensity of media usage causes them to use media to fulfill their needs. The use of media causes the audience to satisfy the information needs of COVID-19 through seeking information. Social interaction motives focus on the high level of knowledge causing the process of socializing and interacting with peers on COVID information being channeled. Motive education causes participants to have behavioral influences, such as #dirumahaja, social distancing, immunity, lockdown, and COVID-19 terms, such as People Under Supervision, Patients Under Monitoring, People Without Symptoms.

Uses and gratifications research has also been studied by Musa, Azmi & Ismail, the findings of the majority of respondents (98.2%) used social media for communication, collaboration, news sharing, research, expression of opinion, maintaining a connection, and making friends from other countries (2015). This relates to studies that have been done by several researchers (Paul et al., 2020; Whiting et al., 2013). The findings of these experts found the majority of people use social media for interaction, killing time, entertainment, seeking and sharing information, socialization, self-expression, education, surveillance, and communication. This study only uses three variable indicators namely seeking information, social interaction, and education. Furthermore, the influence of exposure to conventional and new media on three motives for measuring the uses and gratification theory, specifically COVID-19 information, such as Table 3 and Table 4, follows:

The results of the ANOVA formula analysis showed that the regression coefficient tests found that: first, the conventional media calculation results of testing variables (linear) X (media exposure) to the level of satisfaction of respondents (Y) showed the results of the regression

Table 2. Conventional media and new media gratifications.

Conventional Media Exposure	The scale of Measurement (N = 384)		
	High Satisfaction	Middle Satisfaction	Low Satisfaction
Seeking Information	138 (35.9%)	209 (54,4%)	37 (9.6%)
Social Interaction	138 (35.9%)	216 (56.3%)	30 (7.8%)
Education	119 (31.0%)	230 (59.9%)	35 (9.1%)
New Media Exposure	The scale of Measurement (N = 384)		
	High Satisfaction	Middle Satisfaction	Low Satisfaction
Seeking Information	95 (24.7%)	229 (59.7%)	60 (15.6%)
Social Interaction	58 (15.1%)	228 (59.4%)	98 (25.5%)
Education	75 (19.5%)	217 (56.5%)	92 (24.0%)

Source: Primary Data Analysis, 2021.

Table 3. ANOVA^a result conventional media.

Variable Pair	Regression Coefficient	R Square	Constant	t _{count}	t _{table}		Test Result Hypothesis
					α = 0,05	α = 0,01	
Y - X	0.588 ^a	0.346	6.605	42.304	1.960	2.576	H ₁ Accepted

Source: Primary Data Analysis, 2021.

coefficient of 0.588. The results showed a positive effect, to test the significance based on a comparison of tcount = 42.304 df = 382 and a significant level of 5%, a ttable value of 1.960. The calculation results showed there was a positive and significant influence of variable X (media exposure) on the level of satisfaction respondent (Y) The results of the coefficient of determination of the variance of the value of = 0.346 shows that 34.6% of the level of satisfaction of participants using conventional media. Second, the results of the calculation of new media testing variable (linear) X (media exposure) to the level of respondent satisfaction (Y) shows the results of the regression coefficient value of 0.553. The positive effect of significance based on the comparison of tcount = equal to 41.283 df = 382 and a significant level of 5%, the ttable value of 1,960. The calculation results show there is a minimal positive effect with the results of the coefficient of determination of the variant value of = 0.306 or 30.6% level of satisfaction of participants using new media.

The results of the analysis of the inter-subject effect ANOVA formula analysis revealed the statistical significance of the millennial generation inferential statistical findings from aspects of use (frequency, duration and consistency) and satisfaction (seeking information, social interaction and education). Millennials use conventional and new media during the COVID-19 pandemic. This result shows that the uses and gratifications theory is still relevant in the category of active audiences and has proven to be relevant in the new media era and the era of media convergence.

4. Discussion

The magnitude of influence on conventional media is higher than the new media. This is due to other variables that influence, but not tested in this study. The specifications of the COVID-19 pandemic case are continuously broadcasted and reported through conventional media from the government to provide education for the public. Another variable that has the potential to influence is the development of media convergence which causes conventional media to be accessed through new media. Conventional media and new media are indicators that cannot be released because new media is the innovations of conventional media through media convergence.

The tendency of conventional media and new media to contribute positively gives uses and gratifications to the millennial generation in the COVID-19 pandemic. The research findings indicate, first, the uses and gratifications theory is still valid and relevant in providing information on COVID-19 messages and audience satisfaction. Secondly, the motive of the public to use conventional media and new media for education, so that the function of communication media as supervision in finding information. The media can play a role in providing independent learning for millennials to understand the COVID-19 pandemic that can be transferred to peers and their environment. Third, the analysis of the uses and gratifications theory reveals many uses of conventional and new media that can contribute positively to audience satisfaction.

Media dependence on the dominant millennial generation using new media technology (internet) still has relevance to the uses and gratifications theory. Proving that new media (internet) through uses and gratifications theory has more specific characteristics than mass media because it has characteristics that are the focus of this research is very high interactivity in new media because individuals have control and exchange roles between communicators in the communication process. New media are demassification, namely the opportunity for individual media users to have the freedom to choose very varied messages and information. The difference in the testing period of traditional media types of messages is still limited compared to new media. Characteristics, synchronicity in new media causes messages to connect communicators and communicants at different times, but the interaction is still fun. The millennial generation has a higher dependence in accessing, seeking and using new media because of the advantages it has compared to conventional media. However, media convergence causes the millennial generation to use conventional media because of the credibility of information sources from the government that are accurate, credible, and up to date.

The development of the uses and gratification theory has a significant influence on social application studies at the level of satisfaction, motivation, relationship development (Hsiao et al., 2016). Social media as a channel of communication, collaboration, sharing of information, connectivity, and making friends from various countries without boundaries of space and time (Musa et al., 2016). The use of social media for interaction, entertainment, seeking and sharing information, socialization, self-expression, education and surveillance has been carried out by many previous researchers (Paul et al., 2020), and (Whiting et al., 2013). The results strengthen and prove that the uses and gratification theory is still relevant to be used in testing audience satisfaction both conventional media and new media.

5. Limitations and suggestions for future research

The limitations of the study of the uses and gratifications approach are; first, the population is very specific to the millennial in the city of Makassar. Second, the distribution of the sample does not evenly represent all major cities in Indonesia, so the results are not representative. Researchers examining the diversity of impacts of conventional media and new media can compare across strata of society, especially in the era of the COVID-19 pandemic with more diverse sample size.

This study is less representative of individuals based on high, medium and low education levels. Future studies should seek to maximize a more representative sample size of the population. Communication scientists can investigate further on the role of opinion leaders, families, reference groups in transferring and influencing people's behavior during this global health crisis. Focus on proximity as a follow-up analysis on collectivistic culture that places great emphasis on proximity in the family environment.

Table 4. ANOVA^a result new media.

Variable Pair	Regression Coefficient	R Square	Constant	t _{count}	t _{table}		Test Result Hypothesis
					α = 0,05	α = 0,01	
Y - X	0.553 ^a	0.306	6.711	41.283	1.960	2.576	H ₁ Accepted

Source: Primary Data Analysis, 2021.

6. Conclusion

This study explores the uses and gratifications theory through conventional media and new media on exposure to the COVID-19 pandemic information. The results show that the variable testing indicator is in the middle satisfaction for testing the three motives for seeking information, social interacting, and education both conventional and new media. The results of regression analysis testing have a positive effect on variable X (media exposure) on the level of satisfaction of respondents (Y). The results of the regression coefficient of 0.588 conventional media coefficient of determination of the variance of the value of $= 0.346$ indicate that 34.6% satisfaction level of participants using conventional media. The calculation results show there is a minimal positive effect with the results of the coefficient of determination of the value variance of $= 0.306$ or 30.6% the level of satisfaction of participants using new media.

The use of conventional media and new media for the millennial generation contributes positively to the level of participant satisfaction. The results of testing the validity of the uses and gratifications theory are positively correlated to the search for information on COVID-19, which has become a world pandemic. Proving the uses and gratifications theory reinforces the activeness of audiences in choosing a media platform that can satisfy their needs.

This study focuses on the millennial generation who are assumed to have a high level of interactivity and media exposure in utilizing conventional and new media. Anxiety and uncertainty because of the pandemic caused the need for information and media dependence to be relatively high. This finding supports the uses and gratification theory which provides positive recommendations for the government and the COVID-19 Task Force in Indonesia, health practitioners. Media professionals can be specific references in presenting accurate, credible and accountable reports because of the global health crisis, especially in Southeast Asia countries including Indonesia. Information exposure through social media, such as hoax content, can be minimized with the presence of more accurate conventional media. Active audiences can also be smarter in choosing information and directly educate for media literacy.

Declarations

Author contribution statement

Tuti Bahfiarti: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Arianto Arianto: Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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Data availability statement

Data included in article/supplementary material/referenced in article.

Declaration of interests statement

The authors declare no conflict of interest.

Additional information

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References

- Ahmad, A.R., Murad, H.R., 2020. The impact of social media on panic during the COVID-19 pandemic in Iraqi Kurdistan: online questionnaire study. *J. Med. Internet Res.* 22 (5).
- Ahorsu, D.K., Lin, C.Y., Imani, V., Saffari, M., Griffiths, M.D., Pakpour, A.H., 2020. The fear of COVID-19 scale: development and initial validation. *Int. J. Ment. Health Addic.* 1–9.
- Aisar, S.M., Mohd, N.L.A., Nur-Salina, I., 2015. Exploring the uses and gratifications theory in the use of social media among the students of Mass Communication in Nigeria. *Malays. J. Dist. Educ.* 17 (2), 83–95.
- Apuke, O.D., Omar, B., 2021. User motivation in fake news sharing during the COVID-19 pandemic: an application of the uses and gratification theory. *Online Inf. Rev.* 45 (1), 220–239.
- Baker, S.R., Farrokhnia, R.A., Meyer, S., Pagel, M., Yannelis, C., 2020. How does household spending respond to an epidemic? Consumption during the 2020 covid-19 pandemic. *Nat. Bureau Econ. Res.* 10.
- Bandura, A., 2012. Social cognitive theory. In: M. V. L.P.A., Higgins, E.T. (Eds.), *Handbook of Theories of Social Psychology (Volume 1)*. Sage Publications Ltd.
- Beaunoyer, E., Dupéré, S., Guitton, M.J., 2020. COVID-19 and digital inequalities: reciprocal impacts and mitigation strategies. *Comput. Hum. Behav.* 111, 106424.
- BPS-Statistis of Makassar Municipality, 2021. Makassar Municipality in Figures. <https://makassarkota.bps.go.id/publication/2021/02/26/be312e3f776bcfd005978bda/kota-makassar-dalam-angka-2021.html>.
- Bulduku, Y., 2019. Mobile games on the basis of uses and gratifications approach: a comparison of the mobile game habits of university and high school students. *Convergence* 25 (5–6), 901–917.
- Casero-Ripollés, A., 2020. Impact of covid-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak. *Prof. de La Inform.* 29 (2), 1–11.
- Chuang, Y.-W., 2015. Toward an understanding of uses and gratifications theory and the sense of virtual community on knowledge sharing in online game communities. *Int. J. Inform. Educ. Technol.* 5 (6), 472–476.
- Depoux, A., Martin, S., Karafillakis, E., Preet, R., Wilder-Smith, A., Larson, H., 2020. The pandemic of social media panic travels faster than the COVID-19 outbreak. *J. Trav. Med.* 27 (3), 1–2.
- Dimock, M., 2019. No Title. Pew Research Center. <https://www.pewresearch.org/fact-tan k/2019/01/17/where-millennials-end-and-generation-z-begins/>.
- Echegaray, F., 2020. Anticipating the post-COVID-19 world: implications for sustainable lifestyles. *SSRN Electron. J.* (June), 3637035.
- Gan, C., Liang, X., Yu, X., 2017. Continuance intention on mobile social networking service: examine the effects of habit and gratifications. *Wuhan Int. Conf. E-Business* 44.
- Gaoid, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Fu, H., Dai, J., 2020. Mental health problems and social media exposure during COVID-19 outbreak. *PLoS One* 15 (4), 1–10.
- Greenhow, C., Lewin, C., 2016. Social media and education: reconceptualizing the boundaries of formal and informal learning. *Learn. Media Technol.* 41 (1), 6–30.
- Hameed, H.O., 2020. The Impact of COVID-19 on Social media user behavior and their usage level: the Kurdish Journalist as a Case. *J. Univ. Raparin* 7 (2), 706–735.
- Helmin, 2013. Pengaruh Disiplin Kerja, Keterampilan, dan Motivasi Kerja Terhadap Kinerja Perawat di Rumah Sakit Bahteramas Sulawesi Tenggara. *Halu Oleo University*.
- Horesh, D., Brown, A.D., 2020. Traumatic stress in the age of COVID-19: a call to close critical gaps and adapt to new realities. *Psychol. Trauma: Theor. Res. Prac. Pol.* 12 (4), 331–335.
- Hossain, M.A., 2019. Effects of uses and gratifications on social media use. *PSU Res. Rev.* 3 (1), 16–28.
- Hossain, M.T., Ahammed, B., Chanda, S.K., Jahan, N., Ela, M.Z., Islam, M.N., 2020. Social and electronic media exposure and generalized anxiety disorder among people during COVID-19 outbreak in Bangladesh: a preliminary observation. *PLoS One* 15 (9).
- Hsiao, C.H., Chang, J.J., Tang, K.Y., 2016. Exploring the influential factors in continuance usage of mobile social Apps: satisfaction, habit, and customer value perspectives. *Telematics Inf.* 33 (2), 342–355.
- Igartua, J., Ortega-mohedano, F., Arcila-calderón, C., Arcila-calderón, C., 2020. Communication use in the times of the coronavirus. A cross-cultural study. *El Prof. Inf.* 29 (3), 1–15.
- Ismail, A.R., 2017. The influence of perceived social media marketing activities on brand loyalty. *Asia Pac. J. Market. Logist.* 29 (1), 129–144.
- Ji, Q., Raney, A.A., Losh, S.C., Sypher, U., Merle, P.F., 2016. Watching with Virtual Crowds: the Popularity, Motivation, and Effect of Live Posting during Entertainment TV Viewing. Florida State University. http://purl.flvc.org/fsu/FSU_2016SP_Ji_fsu_0071E_12840.
- Koeze, E., Popper, N., 2020. The Virus Changed the Way We Internet. *The New York Times*. <https://www.nytimes.com/interactive/2020/04/07/technology/coronavirus-s-internet-use.html>.

- Ledbetter, A.M., Taylor, S.H., Mazer, J.P., 2016. Enjoyment fosters media use frequency and determines its relational outcomes: toward a synthesis of uses and gratifications theory and media multiplexity theory. *Comput. Hum. Behav.* 54, 149–157.
- Li, H., Liu, Y., Xu, X., Heikkilä, J., Van Der Heijden, H., 2015. Modeling hedonic is continuance through the uses and gratifications theory: an empirical study in online games. *Comput. Hum. Behav.* 48, 261–272.
- Lidwina, A., 2020. Lockdown, Isu Corona Paling Banyak Dibicarakan di Media Sosial Indonesia. *Databoks.Katadata.Co.Id.* <https://databoks.katadata.co.id/datapublish/2020/04/07/lockdown-isu-corona-paling-banyak-dibicarakan-di-media-sosial-indonesia>.
- Markham, T., 2016. Review essay : social media, politics and protest. *Media Cult. Soc.* 38 (6), 946–957.
- Musa, A.S., Azmi, M.N.L., Ismail, N.S., 2016. Exploring the uses and gratifications theory in the use of social media among the students of mass communication in Nigeria. *Malays. J. Dist. Educ.* 17 (2), 83–95.
- Paul, K., Kang, M., Haile, T.T., 2020. Uses and gratifications in developing user satisfaction and positive electronic word of mouth (eWOM) on facebook: a cross cultural study between South Korea and Tanzania. *Int. J. Sci. Technol. Res.* 9 (4), 460–470.
- (Jay) Phua, J., Jin, S.V., Kim, J., 2017. Uses and gratifications of social networking sites for bridging and bonding social capital: a comparison of Facebook, Twitter, Instagram, and Snapchat. *Comput. Hum. Behav.* 72, 115–122.
- Redaksi WE Online, 2020. Dampak Covid-19 pada Tren Konsumsi Media di Indonesia. *Wartaekonomi.Co.Id.* <https://www.wartaekonomi.co.id/read277752/dampak-covid-19-pada-tren-konsumsi-media-di-indonesia>.
- Raffaetà, R., 2020. Another day in dystopia. Italy in the time of another day in dystopia. Italy in the time of COVID-19. *Med. Anthropol.* 39 (5), 371–373.
- Raji, R.A., Arikewuyo, O.A., Adeyemi, Oladimeji, S. A., Pahore, M.R., 2020. Unveiling social gratifications sought and obtained from social media utilization. *J. Messenger* 12 (2), 168.
- Rochyadi-ReetZ, M., Maryani, E., Agustina, A., 2020. Media use and gratification sought by the public during the Coronavirus outbreak in Indonesia: a national survey. *J. Komunikasi Ikatan Sarjana Komunikasi Indonesia* 5 (March), 111–124.
- Ruggiero, T.E., 2000. Uses and gratifications theory in the 21st century. *Mass Commun. Soc.* 3 (1), 3–37.
- Sheldon, P., Grace, M., Charoensap-kelly, P., Morgan, S., Weldon, L., 2021. Media and interpersonal channels uses and preferences during the COVID-19 pandemic : the case of the United States, Thailand, and Croatia. *Heliyon* 7 (June), 1–10.
- Shiau, W., Luo, M.M., 2012. Continuance intention of blog users : the impact of perceived enjoyment, habit, user involvement and blogging time. *Behav. Inf. Technol.* 32 (6), 570–583.
- Snyder, V., 2020. What marketers need to know about people's social media patterns during the pandemic. *Business.Com.* <https://www.business.com/articles/social-media-patterns-during-the-pandemic/>.
- Sugiyono, 2017. *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D.* CV. CV. Alfabeta.
- Truelove, S., Abraham, O., Altare, C., Lauer, S.A., Grantz, K.H., Azman, A.S., Spiegel, P., 2020. The potential impact of COVID-19 in refugee camps in Bangladesh and beyond: a modeling study. *PLoS Med.* 17 (6).
- Whiting, A., Williams, D., College, B., Berry, M., 2013. Why people use social media : a uses and gratifications approach. *Whit. Anita Williams, David* 16 (4), 362–369.
- World Health Organization, 2020. Mental health and psychosocial considerations during the COVID-19 outbreak. <https://www.who.int/docs/default-source/coronavirus/se/mental-health-considerations.pdf>.
- Worldometer, 2020. COVID-19 coronavirus pandemic. <https://www.worldometer.info/coronavirus/>.
- Zhang, Y., Ma, Z., 2020. Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: a cross-sectional study. *International Journal of Environmental Research and Public Health* [revista en Internet] 2020 [acceso 8 de octu. Imp. COVID-19 Pandem. Ment. Health Qual. Life Among Local Res. Liaoning Prov. China: A Cross-Sect. Study 17 (march), 2381. <https://pubmed.ncbi.nlm.nih.gov/32233719/>.