

MUSLIM STUDENTS' SMARTPHONE USE AND RELIGIOUS PRACTICES: A CORRELATION STUDY AND AFFECTING FACTORS

¹**SAIMROH**, 0000-0002-1470-4223, saimroh@brin.go.id,

²**IBNU SALMAN**, 0000-0001-8791-8372, ibnusalman81@gmail.com,

³**HUSEN HASAN BASRI**, huse005@brin.go.id,

⁴**UMI MUZAYANAH**, 0000-0003-1651-1019, umimoza78@gmail.com,

⁵**TA'RIF**, 0000-0001-9862-3588, ta75rif@gmail.com,

⁶**JUJU SAPUDIN**, 0000-0002-6027-907X, saep.17.khasep@gmail.com,

⁷**NENENG HABIBAH**, dra.nenenghabibah@gmail.com

^{1,2,3,4,5,6,7}National Research and Innovation Agency, Republic of Indonesia

ABSTRACT

The number of people using the internet in Indonesia is growing, especially among students. Smartphones are the most widely used devices for students to access the internet. Smartphones can be installed with a variety of applications that provide both positive and negative information. This article investigates the correlation study and affecting factors for smartphone use and religious practices. The research sample consists of students at State Madrasah Aliyah in Bekasi City. The research shows that WhatsApp and Instagram are the most dominant social media platforms being used at the moment, while most respondents are also studying Koran on their smartphones. Islamic content, such as Islamic news, knowledge, and movies, is also among the most accessed content. Some social media sites have a significant negative correlation, while Islamic applications and contents are proven to have a positive correlation towards religious practice. Parents' and school policies' limiting smartphone use have proven effective in increasing religious practice. Recommends the urgency of a literacy strategy by the government, which includes content restrictions and digital literacy to improve students' religiosity.

Keywords: public religious, religiosity, social media; smartphone policy

INTRODUCTION

The number of Indonesian internet users is rising every year. Indonesia's Indonesian Internet Provider Association (ISPA) data shows that of the total of 262 million Indonesian citizens, 171,17 million, or 64,8 percent, are connected to the internet (Indonesia Internet Provider Association 2018). The number has risen from 54,86 percent in 2017. The data also shows that high school students are among the third-largest internet user in Indonesia (Indonesia Internet Provider Association, 2018).

Indonesia's internet users will account for 73.7 percent of the total population by 2020. The significant increase in the number of users can be attributed in part to the large-scale digital revolution involving online learning and the policy of working from home, which began in March 2020 (Indonesia Internet Provider Association, 2020).

There are many electronic devices can be used to surf the internet. Smartphone is the most favored among computer or laptop. The data from Indonesia Internet Provider Association (2018) shows that every day internet users using smartphone reaches 93,9 percent, while desktop computers in 9,6 percent, laptop 17,2 percent, and tablet computer 5,2 percent.

Baidu's joint research with GFK research agency, Germany (2016), noted that Indonesians are the top daily users of Islamic applications on smartphones. According to Baidu's research, the Salam application is the most downloaded app with a 4,32 percent download rate, followed by the Azan Alarm app with a 2,52 percent download rate. These facts indicate that Islamic applications are in the hearts of most Indonesian citizens (Jamaludin, 2016).

Some previous studies found a positive and negative correlation between the use of information from electronic devices and religiosity. Watching videos or films with violent content can cause a decrease in religiosity (Atkin 1985; Hamilton and Rubin 1992; Hamilton and Rubin 1992; Barry, Padilla-Walker, and Nelson 2012). Davidovitch (2018) assess adolescent religiosity based on the intensity of their religious rituals and beliefs. The findings of both studies are consistent in that watching violent videos or films reduces the intensity of religious rituals but does not reduce belief in religiosity.

In accordance with the findings of the study, Bobkowski (2014) also found that religious adolescents at the age of 16–18 years watched less television that had sex and violence content compared to adolescents who were less religious. Almenayes (2014) found that religiosity can protect a person from negative behavior in the use of social media.

Meanwhile, Fereday (2017) found a positive and negative impact of the use of smartphones on the religiosity of students majoring in religion at Brigham Young University. The use of smartphones has a positive influence on religiosity when used to study religion, or read holy books through programs or applications on smartphones. But the use of smartphones can reduce religiosity if they are used to watch negative content such as negative news, games, pornography, videos, or violence and sexual movies. Fereday (2017) uses two dimensions to measure religiosity: private religious behavior and personal religious experiences.

Based on some of the results of the study above, it shows that the use of content through electronic devices in the form of films, videos, social media, and installed applications has a significant impact on religiosity. Partially, several findings reveal that content accessed through electronic devices is significantly correlated with the intensity of religious practices but does not significantly impact religious beliefs.

In previous studies, most of the objects were college students. While this study focuses on senior high school students, internet users in this group account for a sizable proportion of all internet users in Indonesian society, accounting for 70.54 percent of all internet users in Indonesian society (Indonesia Internet Provider Association, 2018). The dependent variable in this study is focused on the behavior of religious practices because the results of previous studies prove that content accessed through electronic devices such as televisions and smartphones is partially correlated significantly with religious practice but not significantly with religious beliefs.

The purpose of this study is to see how a correlation study and affecting factors of muslim students' smartphone use and religious practices. The study was conducted in the city of Bekasi at a statesenior high school characterized by the Islamic religion, namely the state madrasah aliyah. The city of Bekasi only has two state madrasah aliyah, namely MAN 1 and MAN 2 Bekasi City. The two madrasas have different smartphone usage policies. MAN 1 Bekasi City, which is developing a digital classroom, allows the use of smartphones to support learning (Saimroh, 2018). However, MAN 2 Bekasi City has a policy of not allowing using smartphones in madrasas for any reason because the negative impact is more dangerous than the positive impact of smartphones.

Based on the above description, it's fascinating to see how smartphone use is related to madrasah aliyah students' religious practic. Furthermore, it is critical to determine what preventive actions may be used to decrease the impact of smartphone use on religious practice in madrasah aliyah students.

The following questions will be addressed by this research: 1) What apps and content on smartphones are used by Muslim students? 2) What is the religious practice of Muslim students? 3) Is there a relationship between the use of smartphone apps and content and religious practice? 4) What factors have the potential to affect religious practice?

This research is expected to provide both theoretical and practical benefits. The theoretical benefits of this research can contribute to scientific references on research on the use of smart phones and religiosity in different aspects. The practical benefit soft his research are contributing policy material stoma arrases, the Ministries of Religious Affairs in the Provinces and Cities, and the Directorate General of Islamic Education of the Ministry of Religion affairs related to smart phone utilizationandrestrictionstrategies in school sormadrasass.

LITERATURE REVIEW

Smartphone Apps And Content

A smartphone is a mobile device with similar functions to a computer in features such as data search, instant messaging, media player, and video games (Juanto 2005). Other interesting features of the Smartphone include a personal digital assistant (PDA), internet access, email, and a Global Positioning System (GPS) (Backer 2010).

Smartphones, as an innovation in technology, allow themselves to be installed with various content by their user's preference, including religious needs. Nowadays, there are lots of applications for religious purposes. To support the salat timer, there are prayer time applications. Then to read Al-Quran, there is a digital version of the Quran. Some even provide these Islamic applications built-in preinstalled in the operating system without the need for manual installation.

By a Google study conducted with TNS Australia in 2015, 50 percent of smartphone owners in Indonesia use their phone to access the internet as their primary mode of communication. The three most popular applications on smartphone are instant messaging, social media, and search engines. The most popular sitemaps in Indonesia are for online retail, entertainment, and travel(Annisa Auliani, 2015).

Religiosity and Religious Practice

Religiosity according to Glock, C. Y., & Stark (1970) in Ghufroon and Suminta (2017) is how one's committed to the five substantial dimensions of religious teachings, such as the ideology, the worship or religious practice (the ritualistic dimension), the feeling or appreciation (experiential dimension), the religious knowledge (the intellectual dimension), and the effect or practical dimension (the consequential dimension).

Pargament (1997) in Fridayanti (2015) explains religiosity through personal and social levels. Religion at the social level is how religion interacts with sections of society and how group processes operate in their religious organizations. While religion at the personal level refers to how religion operates in one's life, gives meaning, builds a pleasant conscious state, gives direction to action, makes a person feel guilty or free, or clarifies beliefs to be believed.

Huber (Huber and Huber 2012) defines religiosity as the thoughts and beliefs of a person in viewing the world so that it affects their experiences and behavior in daily life. According to him, a person's religiosity can be measured by the intensity with which they carry out the obligations and religious values that are most prominent in their lives. Huber and Huber (2012) revised aspects of Glock and Stark's religiosity into five different dimensions, namely: intellectual, ideology, public practice, private practice, and religious experience.

The intellectual dimension is the knowledge a person has about their religion, so that they can explain their views about God, religion, and religion. The ideology dimension is a belief that a person has that is related to the existence and meaning of life and the relationship between God and humans. The dimension of public practice is worship

performed by a person and manifested in his participation in rituals, ceremonies, and religious activities. The private dimension of practice is worship performed by someone, which is shown by devoting himself to God in activities, worship, and rituals that are carried out by yourself. The dimension of religious experience is to lead to the experience of direct contact with someone's God so that it has an emotional impact on themselves (Purnomo and Farah Hanifah, 2017).

The definition of behavioral practice of religiosity in this study refers to the definition of (Huber and Huber 2012) which categorizes religious practices into two: the dimensions of public and private. The dimension of public practice is worship performed by a person and manifested in his participation in rituals, ceremonies, and religious activities. While the dimension of private practice is worship done by someone who is shown by devoting himself to God in activities, worship, and rituals that are carried out by himself, Private practice in this study includes indicators of the intensity of performing compulsory worship and sunnah such as: prayer, fasting, alms, reading the holy Qur'an, dhikr, and prayer.

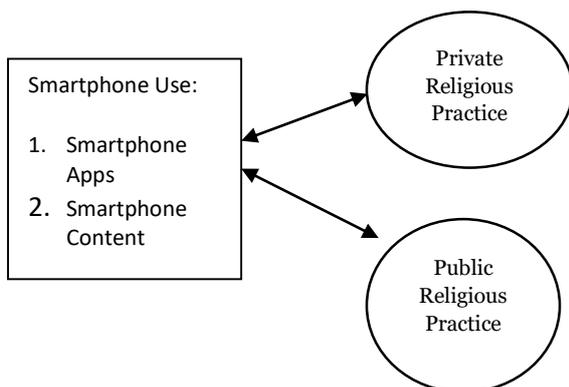
CONCEPTUAL FRAMEWORK

The use of cell phones is correlated to the behavior of its users, according to the research conducted above. The intensity with which people use the Netflix and Snapchat apps is linked to their religiosity. Consumption of video games and pornography, on the other hand, has a negative correlation with religiosity. Religiosity, on the other hand, is linked to how often religious applications and content are used.

Fereday (2017) conducted a study that correlated smartphone use with religiosity in a research sample of college students with Christian characteristics, which is relevant to this research. Pearson correlation and linear regression were used to examine the data. The types of variables, research samples, and data analysis procedures used in this study differ. This study examines religious practices among a group of senior high school students who identify as Muslims. Spearman correlation and the Kruskal-Wallis test were applied in the data analysis. Figure 1 shows a conceptual framework for thinking about the relationship between smartphone use and religious practice.

FIGURE 1.

CORRELATION MODEL OF SMARTPHONE USE WITH PRIVATE AND PUBLIC RELIGIOUS PRACTICES



The use of smartphone applications and content is related to both private and public religious practice. The relationship between the two variables can be both positive and negative depending on the application and information accessed. Smartphones can lead to a decrease in religious practices if they are used to access destructive apps and content. However, religious practice can increase if smartphones are used to access positive applications and content.

RESEARCH METHOD

Population

This study included all state madrasah aliyah students in the city of Bekasi, a total of 2,142 people in the 2018/2019 academic year, which included MAN 1 and MAN 2 Bekasi City. A madrasa aliyah is a formal education institution that organizes general education with the characteristics of the Islamic religion at the senior high school level. With a margin of error of 3.3 percent, the total number of samples in this sample was 670, which met the Slovin formula's minimum sample size requirement.

Data Collection

Data collection was carried out in March 2019 using questionnaire, interviews, observation techniques, and document review. The Questionnaire is the main instrument in this study. While interviews, observations, and document reviews provide supporting data for analysis. The data sources of this study include key people and respondents.

Students were given questionnaires to fill in order to learn more about their religious practices and smartphone usage. Madrasa restrictions on smartphone use, usage patterns, and the benefits and risks of using smartphones in madrasas and schools were all explored by interviews. The interview included participants of the madrasah community, including the head, deputy head, subject instructors, career counseling teachers, student organization coaches, and Islamic spiritual extracurricular coaches. In additionally, interviews with a number of students and their parents were conducted to obtain information on smartphone use, community student religious practices, and policies and parental monitoring of smartphone use at home. Observations of students' daily activities and learning activities in class were made while they were in madrasas. Document studies were carried out on profile documents and madrasah curricula.

Research Instrument

The main instrument used in this study is a questionnaire that is divided into three parts: demographics, smartphone usage, and religious practice.

Demographics

Respondent demographic questionnaires included: madrasa origin, sex, study majors, and pre-madrasa background.

Smartphone Usage

The Smartphone usage questionnaire is described in two dimensions, namely: the dimensions of the application and the content accessed via the Smartphone. Researchers identified 19 applications and 19 content that was popular among students. The questions in the questionnaire are: from the past 6 months, how often have you used applications and content on smartphones? Alternative answers consist of 7 scales, namely: 1 = never, 2 = once a month, 3 = once a week, 4 = less than 1 hour a day, 5 = 1-2 hours a day, 6 = 2-3 hours a day, and 7 = more than 3 hours a day. The questionnaire also includes questions about smartphone user characteristics, which include the type of operating system (OS) and smartphone restriction policies at school and at home.

Religious Practice

Religious Practice questionnaire is described in two dimensions: private practice and public practice religious. This questionnaire consists of 18 items asking, how often do you conduct private and public religious activities? The answers are divided into four scales: 1 = never, 2 = sometimes, 3 = often, and 4 = always. Private religious practices is elaborated with an indicator of the intensity of carrying out compulsory services such as prayer, zakat, fasting, and sunnah worship such as reading the Qur'an, alms, dhikr, and prayer. Whereas public religious practice is measured by indicators of involvement in religious activities in the community, such as religious activities in schools and in the community.

Data Analysis

The questionnaire trial was carried out on 51 private madrasa students. Validity analysis uses *Pearson correlation* and reliability analysis with *Cronbach's Alpha* coefficient (Azwar Saifuddin, 2012). The Smartphone use questionnaire consisted of 38 items consisting of 19 types of applications and 19 types of popular content used by students showing all valid items with *Cronbach's Alpha* coefficient of 0.894. While the validity test of the religious practice questionnaire consisted of 18 valid items and one item is invalid with *Cronbach's Alpha* coefficient of 0.835.

Descriptive statistics, bivariate correlation, and multiple comparisons were used in the data analysis technique. Descriptive statistical analysis of madrasa students' demographics and smartphone usage trends, as well as their level of religious practice. Because the questionnaire data was on an ordinal scale, bivariate analysis was done in a non-parametric statistical approach (Whitley & Ball, 2002). The correlation between the two variables on an ordinal scale is examined using bivariate analysis with Spearman correlation (James Lani, 2010). Meanwhile, the Kruskal-Wallis Test, which compares religious practice in two or more independent samples based on the demographics of the respondents, is used to identify what factors can distinguish religious practices (Vargha & Delaney, 1998).

Descriptions of religious practice are grouped into three levels: low, sufficient, and high. The division of class interval is based on the mean calculation (M_i) and standard deviation (SD) with the following formula:

Table 1. Religious Practices Categorization

Class interval	Categorization
$X > M_i + 1 SD$	High
$M_i - SD < X < M_i + SD$	Sufficient
$X < M_i - SD$	Low

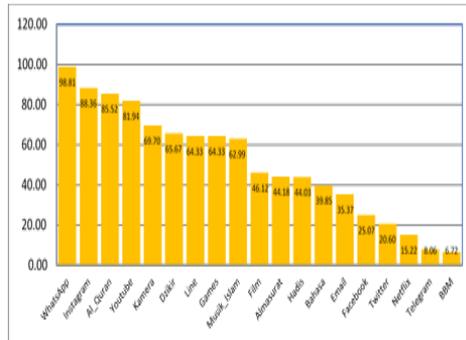
RESULT AND DISCUSSION

Demographics of Respondents

The 670 sample research respondents consisted of 67.01 percent of women and 32.99 percent of men. Students came from the programs of mathematics and natural sciences (54.18 percent) and social sciences (45.82 percent). The distribution of respondents by grade level was first grade students (37.31 percent), second grade (26.12 percent), and third grade (36.57 percent). According to the pre-Madrassa aliyah background, more than three-quarters (75.48 percent) of the respondents came from Islamic-based schools, and 25.52 percent of the respondents were from public schools.

The majority of respondents (35.22 percent) have been using smartphones for 5 years, 3-4 years (33.58 percent), 1-2 years (20.60 percent), and less than one year (10.60 percent). This type of Android OS is used by 91.94 percent of respondents, while the iPhone is used by 7.76 percent and Windows Phone is used by 0.30 percent. Bekasi city has two state madrassas that have conflicting smartphone usage policies. One madrasa aliyah has a policy prohibiting the use of smartphones in schools. But other aliyah madrasas have policies utilizing smartphones for learning. The policy has an impact on the daily penetration of smartphone users in schools, which is quite low at 63.28 percent, which means that there are about 63,28 percent of respondents who use smartphones and 36,72 percent of respondents do not use smartphones in school.

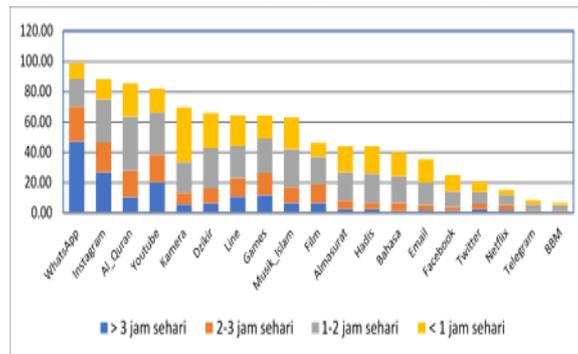
FIGURE 2. DAILY PENETRATION BY APPLICATION ACCESED FROM SMARTPHONE



Source: Data Analysis, 2022

The four applications most frequently accessed by respondents were Whatsapp, with a daily penetration of 98.81, Instagram (88.36), Al-Qur'an (85.52), and Youtube, with an average of 81.94 (see Figure 2). Although social media dominates applications that are accessed by students every day, However, 85.52 percent of respondents use digital Al Quran applications on their smartphones on a daily basis. The average duration of respondents accessing the Koran varies from less than one hour per day to more than three hours per day (seeFigure 3). Other Islamic applications that were widely accessed by respondents were dhikr and prayer (65.57), and Islamic music (62.99).

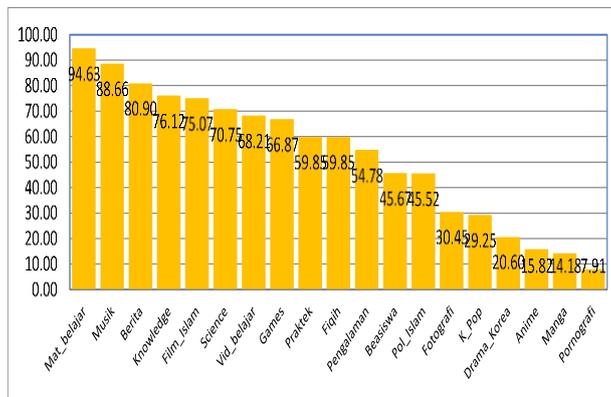
FIGURE 3 TIME SPENT DAILY ON SMARTPHONE APPLICATION



Source: Data Analysis, 2022

Learning materials have been the most accessed content by respondents in the past 6 months. 94.63 percent of respondents said they access learning materials every day. Every day, up to 88.66 percent of respondents listen to music. As a school characterized by the Islamic religion, it is very often faced with tasks with the theme of the Islamic religion, so students look for learning resources such as Islamic news, Islamic knowledge, and Islamic films with a high enough penetration (see Figure 4).

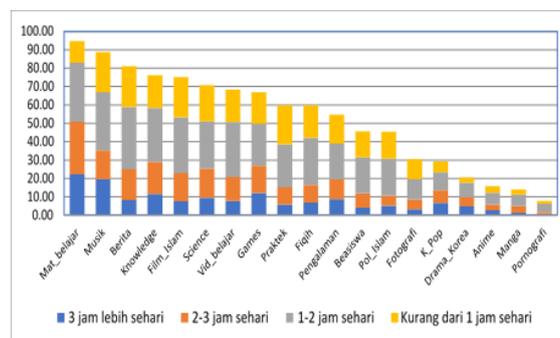
FIGURE 4
DAILY PENETRATION OF ACCESSIBLE CONTENTS



Source: Data Analysis, 2022

In the midst of the teenage trend of Korean artists, respondents who access Korean Pop (K-Pop) music every day are 29.25 percent, and Korean Drama (20.60 percent). While Japanese animated films can contain up to 15.82 percent anime, Japanese comic books or manga (14.18 percent), and pornography (7.91 percent) are also acceptable. The duration of accessing smartphone contents is shown in Figure 5.

FIGURE 5
TIME SPENT DAILY ON SMARTPHONE CONTENT



Source: Data Analysis, 2022

In addition to entertainment content, madrasah aliyah students consume a lot of Islamic content. 80.90 percent of those polled said they read Islamic news every day, 76.12% said they learned about Islam, and 75.07 percent said they viewed Islamic films. Over 54% have access to other Islamic content, such as worship practices, fiqh, and ulama's religious experiences. 29.25 percent of respondents listen to Korean Pop (K-Pop) music and watch Korean Drama on a regular basis, indicating an enthusiasm for Korean music among youngsters (20.60 percent). Anime accounts for 15.82 percent of Japanese animated films, and Japanese comics or Manga accounts for 15.82 percent (14.18). Figure 4 also demonstrates that 7.91 percent of respondents view pornographic photographs or movies via their smartphones.

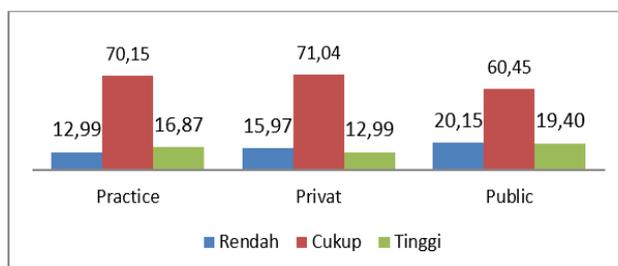
For madrasa students, the internet is a useful resource for learning about Islam. According to the study results, 11.94 percent of respondents said they use their smartphones to access Islamic content frequently, 38.51 percent said they do it frequently, 49.25 percent said they do so rarely, and only 0.30 percent said they never do so. The following Islamic websites are usually accessed by respondents: www.dalamislam.com, www.rumaysho.com, www.muslim.or.id, www.eramuslim.com, www.eramuslim.com, www.nu.or.id, www.liputanislam.com, www.kajian.net, www.beritaislamimasakini.com, www.aramah.com.

In addition to these sites, most students claimed to seek Islamic knowledge through Instagram, where students follow Islamic Instagram accounts such as @beraniberhijrah, @remaja.islami, @remaja.islami, @sahabatsurga. In fact, many madrasah aliyah students follow ustadz Instagram accounts like @ust.abdulsomad and @ust.abdulsomad and @ustadhananattaqi. They claim that they don't have a database of specialized websites to study Islam and instead conduct their research using the Google search engine.

RELIGIOUS PRACTICE

Student religious practice is measured in two dimensions: the dimensions of private religious practices and public religious practices. The religious practice behavior of the majority of respondents (70.15 percent) is quite good. 16.87 percent of respondents have high religious practices, and 12.99 percent of respondents have low religious practices. In terms of private practice, 71.04 percent of respondents thought it was fairly good, 15.97 percent thought it was low, and 12.99 percent thought it was high. In the category of public practice, 60.45 percent of respondents are quite strong, 20.15 percent are low, and 19.40 percent are high (see Figure 5).

FIGURE 6
DESCRIPTION OF STUDENTS RELIGIOUS PRACTICE



Source: Data Analysis, 2022

Religious Practice and use Of Smartphone Applications and Content

The impact of smartphone apps and content on religious practice is analyzed by correlation analysis to test the closeness of the relationship between the two variables. The use of a smartphone can potentially improve religious practice. But on the other hand, there is a risk of decreasing the religious practice of Muslim students. The results of the correlation analysis between the use of smartphones and the religious practices of students can be seen in Table 1.

Table 4. Correlation of Applications accessed with Religious Practices

Application	Priv_pract		Pub_prac	
	r	Sig.	r	Sig.
Facebook	-.108**	.005	.135**	.000
Instagram	-.036	.356	-.074	.055
Twitter	-.082*	.035	-.107**	.006
WhatsApp	-.061	.116	-.023	.547
Line	-.062	.109	-.111**	.004
BBM	-.103**	.008	.053	.169
Telegram	-.080*	.038	.022	.578
Youtube	-.120**	.002	-.111**	.004
Netflix	-.056	.151	.016	.673
Camera	-.051	.190	-.029	.448
Games	-.163**	.000	.030	.433
Film	-.042	.280	-.042	.272

Email	.030	.439	.060	.119
Alquran	.190**	.000	.227**	.000
slamic musi	.184**	.000	.357**	.000
Arabic	.147**	.000	.241**	.000
Dzikir	.238**	.000	.279**	.000
Hadist	.216**	.000	.302**	.000
Almasurat	.161**	.000	.229**	.000

**) significant at the 0.01 level (2-tailed)

*) significant at the 0.05 level (2-tailed)

Source: Data Analysis, 2022.

Some applications on the smartphone have a significant relationship with the practice of religiosity, both in private practice and public practice. The direction of the relationship between the two variables can be positive or negative, depending on the application and the content being accessed. All Islamic applications, such as Al-Quran, Islamic Music, Arabic, Dhikr, Hadith, and Al Masurat, have significant positive correlations with private practice and public practice. Facebook, Twitter, BlackBerry Messenger (BBM), Telegram, Youtube, and game apps all have a strong link to private religious practice, while Facebook, Twitter, Line, and Youtube applications have a significant negative correlation with public religious practice.

Popular social media platforms among teenagers are Instagram and WhatsApp. They do not significantly correlate with religious practices, in both private and public practice. This is because, even though more and more negative content is spread through social media, sharing positive content also provides a lot of positive inspiration. In fact, Whatsapp became a da'wah community by creating a one-day-one-juz group, one-day-one-hadith, or one-day-one-sheet community. Some respondents stated that they prefer studying Islam on Instagram by following Islamic accounts like @beraniberhijrah, @teens.islami, @sahabatsurga, or their favorite ustadz accounts like @ust.abdulsomad and @ustadhananattaqi.

Table 2 shows that the use of positive content such as articles or videos of learning material, scholarship information, and experience is positively correlated with individual and public practices. This means that the longer access is allowed to the content of learning materials, scholarship information, and science, the higher the private and public practice. Whereas the content of games, music, K-Pop, Manga, Anime, Korean dramas, photography, and pornography have a significant negative correlation with private practices, which means that the longer the content of games, music, K-Pop, Manga, Anime, Korean dramas, photography, and pornography is consumed, the less individual worship is practiced. In addition to being significantly

correlated with individual worship practices, music content, K-pop, and Korean dramas are also showing a significant negative correlation with public worship practices.

TABLE 4. THE CORRELATION BETWEEN CONTENT BEING ACCESSED AND RELIGIOUS PRACTICES

Content	Priv_pract		Pub_prac	
	r	Sig.	r	Sig.
learning materials	.165**	.000	.092*	.017
Games	-.162**	.000	.038	.329
Learning video	.116**	.003	.124**	.001
Scholarship	.151**	.000	.234**	.000
Science	.206**	.000	.178**	.000
Music	-.111**	.004	-.097*	.012
K_Pop	-.112**	.004	-.185**	.000
Manga	-.087*	.025	.034	.378
Anime	-.125**	.001	.027	.482
Korean drama	-.077*	.047	-.162**	.000
photography	-.094*	.015	-.052	.182
Pornography	-.195**	.000	-.041	.286
Islamic news	.147**	.000	.295**	.000
Islamic film	.141**	.000	.280**	.000
Islamic politics	.129**	.001	.285**	.000
Islamic Practices	.198**	.000	.267**	.000
Islamic knowledge	.229**	.000	.287**	.000
Islamic jurisprudence	.198**	.000	.340**	.000
Religious experience	.089*	.022	.182**	.000

**) significant at the 0.01 level (2-tailed)

*) significant at the 0.05 level (2-tailed)

Source: Data Analysis, 2022.

As many as 11.94 percent of respondents claimed to frequently access Islamic content via smartphones, 38.51 percent claimed to do so frequently, 49.25 percent claimed to do so occasionally, and only 0.30 percent claimed never.

Islamic content on smartphones, such as Islamic news, Islamic films, Islamic politics, Islamic knowledge, Fiqh, and religious experience, shows a positive correlation with individual and public worship practices, which means that the longer access to Islamic content, the higher the practice of individual and public worship.

Religious Practice and Demographic Factors

Smartphones have a positive impact when they are used to access positive applications and content. This study's findings show that Islamic applications such as the Al-Qur'an app, the call to prayer app, and Islamic news can assist people improve their religious practices. On the other hand, when smartphone is used to access game apps, pornography, and other negative content, it can lead to a reduction in religious practice.

This section identifies the demographic factors that can differentiate madrasa students' religious practices. It also examines into the effects of smartphone policies at school and at home on religious practice. The Kruskal-Wallis Tests were used to compare two or more independent sample groups in this study. By examining the factors that influence it, such as demographic factors and smartphone policies, the negative impact of smartphone usage on students' religious practices can be prevented.

TABLE 5. KRUSKAL-WALLIS TEST RESULTS OF RELIGIOUS PRACTICES ACCORDING TO RESPONDENT DEMOGRAPHICS

Factors	Category	N	Mean	Sig.
Sex	Male	221	345,28	0,359
	Female	449	330,69	
		670		
Grade	X	250	310,46	0,017**
	XI	175	337,17	
	XII	245	359,86	
		670		
School policy	No	364	314,44	0,002**
	Yes	306	360,56	
		670		

Parental policy	No	217	301,80	0,002**
	Yes	453	351,64	
		670		
Previous education	SMP Islam	163	293,10	0,013**
	SMP	171	341,70	
	MTS	261	351,53	
	Pesantren	75	357,73	
		670		

**) significant at the 0.01 level (2-tailed)

*) significant at the 0.05 level (2-tailed)

Source: Data Analysis, 2022.

Based on Kruskal-Wallis Test results, the demographics that have a significant relationship are grade level, smartphone usage school policy, smartphone parental policy and previous education. Respondents in grades 1, 2, and 3 have significantly different religious practices. The higher the grade, the better the religious practice. Students' religious practices from schools that limit the use of smartphones have a higher rate of religious practices to those without a smartphone restriction policy at school. Likewise, at home policy, the behavior of children whose parents do not restrict them from using smartphones at home is lower compared to children whose parents limit the use of Smartphones at home (see Table 3).

Thus, preventing the negative impact of smartphone use can be accomplished by enacting policies and policing schools and parents regarding smartphone use. But that does not mean a complete restriction on Smartphones in schools, because many students have reason to use Smartphones to access learning materials and other information that is not obtained from teachers at school. However, there must be clear rules regarding smartphone use at school and at home in terms of time, content, application, reward, and punishment.

CONCLUSION

The conclusions of this study are that, first, the use of smartphones by Madrasa aliyah students in the city of Bekasi is dominated by the WhatsApp, Instagram, and Al-Qur'an applications, followed by the Youtube and Camera applications. The Islamic applications widely used by respondents are the Qur'an, dhikr, and prayers, with a high enough daily user penetration. Learning materials, music, Islamic news, Islamic knowledge, and Islamic movies are among the content that has a high enough daily

penetration to be accessed by public Madrasa aliyah respondents in the city of Bekasi. Second, the majority of respondents' religious practices are in the "quite good" category, and only a small proportion of respondents have high and low religious practices. Third, the use of smartphones correlates significantly with the behavior of respondents' religious practices. The direction of the correlation can be positive or negative, depending on the application and the content accessed. The use of applications and positive content will increase the acceptance of religious practices. However, if used for applications and negative content, it can reduce the behavior of respondents' religious practices. Fourth, the negative impact of smartphone usage on students' religious practices can be prevented by developing literacy strategies that include handling negative content and utilizing digital technology.

The results of this study recommend several things: first, the Ministry of Religion should coordinate with other ministries, such as the Ministry of Women's Empowerment and Child Protection, the Ministry of Communication and Information Technology, and the Ministry of Education and Culture to develop literacy strategies that include content restrictions and digital utilization for the education field. Second, the Ministry of Religion should coordinate with the Ministry of Communication and Information and the Police to handle negative content as per Law No. 19/2016 on Information and Electronic Transactions (ITE). Third, the Head of Madrasa needs to make technical policies that regulate the restrictions and use of smartphones in schools to support technology-based learning activities. Fourth, parents need to supervise and assist their children in using smartphones at home wisely.

ACKNOWLEDGEMENT

This article is the result of a study conducted by *Office of Religious Research and Development Ministry of Religious Affairs Republic Indonesia* for the 2019 fiscal year. As a result, the authors would like to thank the Director of the Jakarta Religious Research and Development Center for funding and support. The authors like to acknowledge the principals of Madrasah Aliyah Negeri 1 and 2 in Bekasi City, as well as all those who supported them in conducting this research.

REFERENCES

- Almenayes, J. J. (2014). An Empirical Test of the Social Media User Typology Framework. *IOSR Journal of Humanities And Social Science*, 19(4), 23–28.
- Atkin, C. . (1985). Informational utility and selective exposure to entertainment media. In D. Zillman & J. Bryant (Ed.), *Selective Exposure to Communication*. Routledge.
- Azwar Saifuddin. (2012). *Reliabilitas dan Validitas* (4th ed.). Pustaka Pelajar.
- Backer, E. (2010). *Using smartphones and Facebook in a major assessment: The student experience*. 4(1), 19–31. <http://www.ejbest.org>
- Barry, C. M. N., Padilla-Walker, L. M., & Nelson, L. J. (2012). The Role of Mothers and Media on Emerging Adults' Religious Faith and Practices by Way of Internalization of Prosocial Values. *Journal of Adult Development*, 19(2), 66–78. <https://doi.org/10.1007/s10804-011-9135-x>
- Bobkowski, P. (2014). Faith in the Digital Age: Emerging Adults' Religious Mosaics and Media Practices. In M. M. Carolyn McNamara Barry (Ed.), *Emerging Adults' Religiousness and*

- Spirituality: Meaning-Making in an Age of Transito* (pp. 93–108). Oxford University Press.
- Davidovitch, N. (2018). The Potential and Risks of Internet Use as Permitted by Jewish Law Case Study: Internet Use by Students of a Religious High School – by Default or by Choice? *Journal of Education and E-Learning Research*, 5(2), 96–101. <https://doi.org/10.20448/journal.509.2018.52.96.101>
- Fereday, M. R. (2017). *Smartphone Usage and Religiosity in LDS Young Adults*. 1–84. <https://scholarsarchive.byu.edu/etd/6315/>
- Fridayanti, F. (2015). Religiusitas, Spiritualitas Dalam Kajian Psikologi Dan Urgensi Perumusan Religiusitas Islam. *Psymphatic: Jurnal Ilmiah Psikologi*, 2(2), 199–208. <https://doi.org/10.15575/psy.v2i2.460>
- Ghufron, M. N., & Suminta, R. R. (2017). Komitmen Beragama dan Kepuasan Perkawinan pada Pasangan yang Bekerja Menjadi Tenaga Kerja Indonesia. *Psikohumaniora: Jurnal Penelitian Psikologi*, 2(2), 143. <https://doi.org/10.21580/pjpp.v2i2.2172>
- Glock, C. Y., & Stark, R. (1970). *American Piety: The nature of religious commitment*. University of California Press.
- Hamilton, N. F., & Rubin, A. M. (1992). The Influence of Religiosity on Television Viewing. *Journalism Quarterly*. <https://doi.org/10.1177/107769909206900315>
- Huber, S., & Huber, O. W. (2012). The Centrality of Religiosity Scale (CRS). *Religions*. <https://doi.org/10.3390/rel3030710>
- Indonesia Internet Provider Association. (2018). Laporan Survey Penetrasi dan Profil Pelaku Pengguna Internet Indonesia Tahun 2018. *Teknopreuner*.
- Indonesia Internet Provider Association. (2020). Apjii. In *Indonesia Internet Provider Association* (Vol. 74, p. 1). <https://apjii.or.id/content/read/104/503/BULETIN-APJII-EDISI-74---November-2020>
- Jamaludin, F. (2016). Dua aplikasi islami ini paling banyak didownload muslim Indonesia. In <https://www.merdeka.com/>. <https://www.merdeka.com/teknologi/dua-aplikasi-islami-ini-paling-banyak-didownload-muslim-indonesia.html>
- James Lani. (2010). Correlation (Pearson, Kendall, Spearman). *Statistics Solutions*.
- Juanto, M. (2005). *Smartphone Hack*. O`reilly Media Inc.
- Pargament, K. (1997). *The Psychology Of Religion And Coping*. The Guilford.
- Purnomo, Farah Hanifah, B. S. (2017). Uji Validitas Konstruk pada Instrumen Religiusitas dengan Metode Confirmatory Factor Analysis (CFA). *JP31, Vol. VI(No.2)*.
- Palupi Annisa Auliani. (2015). *Mau Tahu Hasil Riset Google soal Penggunaan "Smartphone" di Indonesia?* 19/11/2015. <https://tekno.kompas.com/read/2015/11/19/23084827/Mau.Tahu.Hasil.Riset.Google.soal.Penggunaan.Smartphone.di.Indonesia>
- Vargha, A., & Delaney, H. D. (1998). The Kruskal-Wallis Test and Stochastic Homogeneity. *Journal of Educational and Behavioral Statistics*. <https://doi.org/10.3102/10769986023002170>
- Whitley, E., & Ball, J. (2002). Statistics review 6: Nonparametric methods. In *Critical Care*. <https://doi.org/10.1186/cc1820>