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Analysis of the effect of restricting smartphone use on overcoming student behavior

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ABSTRACT

The use of smartphones in the STIBA Makassar environment has the potential to cause students to tend to behave defiantly, especially in aspects of the Sharia and its practice, and is not in line with what is expected. With concerns about this potential, regulations limiting the use of smartphones have been established as an Islamic social control so that guidance in the STIBA Makassar environment can run as expected and be able to direct students to maintain their behavior in life. This research was conducted with the objectives, namely to analyze the influence of regulations limiting the use of smartphones as Islamic social control on overcoming student behavior at STIBA Makassar. This research uses primary data through questionnaires and a quantitative approach through Descriptive Statistics techniques, and component or variant-based Structural Equation Modelling (SEM) with Partial Least Square (PLS). The results of the research show that the Regulations Restricting the Use of Smartphones as Islamic social control have a positive and significant influence on the Management of Student Behavior, which means that the higher the quality of the implementation of the Regulations Restricting the Use of Smartphones, the higher the quality of the Management of Student Behavior.

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INTRODUCTION

The presence of smartphones has changed people's lives significantly, including students. This change has an impact on the way students carry out their duties and roles. It is hoped that smartphones can be an alternative learning resource that can increase the effectiveness and efficiency of learning by utilizing the various features and applications available. With advanced technology and the ability to access various applications, wise use of smartphones will greatly support student activities and studies (Hildayanti, 2017; Ifeanyi & Chukwuere, 2018).

In a study conducted by Murni et al. (2023), it was stated that the use of smartphones has made the learning process easier, enabled student collaboration in lectures flexibly, and increased their motivation. Likewise, research by Ningsih et al. (2017) regarding the impact of smartphone use on students concluded that smartphones facilitate communication between students, strengthen social relationships, and reduce stress. In addition, according to the findings of Daeng et

al. (2017), via smartphones, students can also access information related to academic administration, such as checking Study Results Cards (KHS) and filling out Study Plan Cards (KRS), as well as expanding their knowledge by accessing various other general information.

However, on the other hand, there are negative impacts that will arise if smartphones are not used effectively and efficiently. From the research results of Firmansyah et al. (2020) conducted at the Faculty of Medicine, Nusa Cendana University, with 225 respondents, it was found that 135 respondents (60%) were addicted to smartphone use and 90 respondents (40%) did not experience smartphone addiction. Research by Ningsih et al. (2017) found that the use of smartphones makes students lazy about studying, disrupts students' learning concentration, forgets tasks and obligations, disrupts children's development, and has the potential for waste. Likewise, Huslaini (2022) found that smartphones can cause online game addiction in teenagers, making them socialize less with their friends and causing them to lose sleep.

Sekolah Tinggi Ilmu Islam dan Bahasa Arab (STIBA) Makassar is a dormitory and Islamic boarding school-based private university that applies the boarding school learning method. All students, especially those in their first semester, are strongly encouraged to live in student dormitories. By gathering students in the dormitory, it is hoped that the process of developing prospective preachers and ulama as individuals with character, noble character, training, and agility can be more comprehensive and integrated. In connection with the above, STIBA Makassar makes cadre development the most important part of the entire educational process on campus. Therefore, the values of cadre development receive serious attention from the entire academic community of STIBA Makassar, especially students, in order to achieve the vision and mission of the institution that have been proclaimed. As with higher education institutions in general, STIBA Makassar is also very likely to be impacted by modernization and technological developments. The high need of students for technology means that the campus initially allows students to use technological devices, such as cellphones or smartphones. However, as time went by, the campus discovered deviant behavior from some students when using smartphones. In an interview with Ustaz Sirajuddin Syarif, Head of the Islamic Boarding School and Dormitory Section, when asked about the problems or phenomena that occur among students related to the use of smartphones in the campus environment, he revealed, "There is a phenomenon of many students using their cellphones or smartphones during busy hours, even at times when students should be resting. They spend a lot of time playing games and using social media such as Instagram, Facebook, YouTube, and TikTok. As a result, quite a few of them sleep late, and this has an impact on congregational prayers at dawn. Then, their activeness in participating in various activities on campus. Because of that, the campus provides policies and relief to only use simple cellphones that can only be used for calling and sending SMS." (Sirajuddin Syarif, 40 years old, Head of Islamic Boarding School and Dormitory Section, Interview, Makassar, October 24, 2023)

As a private university with a dormitory and Islamic boarding school-based education system, STIBA Makassar aims to develop students into prospective preachers and ulama with noble character, discipline, and agility. Despite initially permitting the use of smartphones to meet students' technological needs, the campus observed misuse among students. Many were found using smartphones during inappropriate times, such as late at night, leading to issues like sleep deprivation and decreased participation in campus activities, including congregational prayers and academic pursuits. These behaviors conflicted with the institution's objectives of moral and academic excellence. Consequently, STIBA Makassar introduced a policy restricting smartphone use, allowing only basic phones for calls and SMS to mitigate these negative impacts and maintain a focus on religious and academic duties. Apart from that, as an alternative policy, the campus also implements an obligation for students to take part in all coaching activities to overcome behavioral deviations, for example the policies or activities of Dirāsah Ta'ṣiliyah, Tarbiyah Islāmiyah, and

others. It is hoped that this policy can be integrated with the smartphone usage restriction policy above because it all boils down to addressing student behavior.

The phenomenon above shows that there is a gap between knowledge, the practice of knowledge itself, and personality morals, which often arise and become problems related to the development of students at STIBA Makassar. In a study by Kasim, Rama, Marjuni, & Ibrahim (2022), it was stated that morals and religious practices that do not reflect the identity of a student of Sharia knowledge for some students are a problem that must be resolved. Some *syar'i* violations are still generally committed by new students and sometimes by one or two senior students. This phenomenon and problems related to moral development (*akhlāq al-karīmah*) require stronger moral development, especially in the approach and guidance through Islamic tarbiyah, one of which is through regulating and supervising the use of technological devices, such as smartphones.

From the descriptions above, it can be understood that the use of smartphones in the STIBA Makassar environment has the potential to cause students to tend to behave deviantly, especially in aspects of the Sharia and its practice, and is not in line with what is expected. With concerns about this potential, regulations limiting the use of smartphones have been established as an Islamic social control so that coaching in the STIBA Makassar environment can run as expected and be able to direct students to maintain their behavior in life.

Similar policies are implemented in various Islamic educational institutions to maintain discipline and ensure students' focus on their studies and practices. For instance, some Islamic boarding schools in Indonesia enforce strict smartphone usage rules, where students are allowed limited or no access to smartphones. Dravioni, Susaldi, & Danismaya (2023) found that restricting smartphone use will have a positive impact on learning achievement among teenagers at MTs Assa'adah, Bogor district in 2022. The results of these policies generally include improved academic performance, better adherence to religious practices, and reduced instances of behavioral issues related to excessive smartphone use. Overall, while the implementation of smartphone restriction policies in Islamic educational institutions aims to foster a disciplined and focused learning environment, the effectiveness of these policies depends on their execution and the support provided to students in adapting to these regulations. Although several previous studies (Fajrin, 2013; Ifeanyi & Chukwuere, 2018; Nuraedah, 2016; Rahminda & Mastanora, 2023) have examined the influence or impact of the use of cellphones or smartphones on the behavior or character of users in educational environments, these studies have not studied or researched further the influence of the implementation of regulations limiting the use of smartphones on overcoming student behavior in Islamic college, especially at STIBA Makassar. Therefore, this research was carried out with the aim of analyzing the effect of implementing regulations limiting the use of smartphones on overcoming student behavior at STIBA Makassar.

Based on the description above and the findings in previous studies, the research hypothesis proposed in this study is that "the implementation of regulations limiting the use of smartphones as Islamic social control has a positive and significant effect on overcoming student behavior at STIBA Makassar."

RESEARCH METHODOLOGY

Based on the objectives to be achieved, this research is included in the explanatory research category, namely research that aims to explain the relationship between two or more variables (Auliya et al., 2020; Hamdi & Ismaryati, 2019; Paramita, Rizal, & Sulistyan, 2021; Sugiyono, 2017) or research that is based on a theory or hypothesis that will be used to test a phenomenon that happens. The population in this study was all active students of STIBA Makassar in the 2023–2024 academic year, totaling 2342 people. The sample in this research was taken using a probability sampling method, where each member of the population has the same opportunity to be selected

as a sample (Siregar, 2013; Sugiono, 2011), with a simple random sampling technique, namely random sample selection (Ghozali, 2006). This sampling technique was chosen because the research population has a relatively homogeneous character, so random sampling techniques can be used (Ghozali, 2006). The sample size was calculated based on the existing population, namely 2342 people, using the Slovin formula (Bungin, 2013). By using the formula, the number of research samples is 342.

The data sources used are primary and secondary. Primary data consists of data generated directly from respondents, in the form of answers to questions on questionnaire sheets from STIBA Makassar students as respondents, and through interviews with several selected informants. Meanwhile, secondary data is in the form of supporting data obtained and available in related sections, units, or agencies, such as related regulations, learning curricula, learning reports, and others.

Based on the research objectives and research framework above, the analytical methods used Structural Equation Modeling (SEM) based on components or variants (component based) which is popular with Partial Least Square (PLS) with the help of the SmartPLS 4 program. This technique was chosen on the grounds that the PLS technique does not require many assumptions. The data does not have to have a multivariate normal distribution, and the sample size does not have to be large (Ghozali, 2008, recommends between 30 and 100). In addition, this technique is widely used for complex causal-predictive analysis and is a suitable technique for use in prediction applications and theory development, as in this research. Apart from that, considering the small number of samples used in this research, PLS was used as an analysis tool (Creswell & Creswell, 2017; Djamba, 2002; Hartono, 2008; Ringle, Wende, & Becker, 2015; Sarwono & Narimawati, 2015).

In detail, the SEM-PLS technique in this research applies two types of components to the causal model, namely, the measurement model and the structural model. First, assess or evaluate the measurement model. The measurement model is an assessment of the reliability and validity of research variables, or it is defined as the relationship between indicators and latent variables. The criteria for assessing the measurement model in this research are: a) The convergence validity of the measurement model with reflexive indicators is assessed based on the correlation between the item score or component score and the construct score calculated using PLS. Convergent validity aims to determine the validity of each relationship between indicators and their latent variables. Convergent validity is assessed based on the correlation between item scores and variable scores. The loading value has a high level of validity if it is greater than 0.5. Loading values that are smaller than 0.5 will be dropped in the model and re-estimated (Ghozali, 2008); b) Discriminant Validity is used to prove that latent constructs predict measures in their block better than measures in other blocks. Ghozali (2008) said that the method for measuring discriminant validity is to look at the Average Variance Extracted (AVE) value. If the AVE value for each construct is greater than 0.5, then the model is said to have good discriminant validity; c) Construct Reliability (Composite Reliability) of indicator blocks that measure a construct can be evaluated with two types of measures, namely internal consistency and Cronbach's alpha. Ghozali (2008) stated that a latent variable has high reliability if the composite reliability value is above 0.7 and/or Conbach's alpha is above 0.6.

Second, assess or evaluate the structural model. Structural model testing is carried out to see the relationship between constructs or latent variables, which can be seen from the value of the structural path coefficients (estimate for path coefficients). This value shows the magnitude of the influence of the variable (construct). This estimated value was evaluated using a statistical t-test obtained through a bootstrapping procedure (Ghozali, 2008). Testing was carried out using the t-statistical test (t-test), with the criterion that if a p-value ≤ 0.05 (alpha = 5%) was obtained, it was concluded to be significant, and vice versa.

Based on the framework (Figure 1), this research uses two variables. These variables consist of independent (free) and dependent (boundary) variables. The independent variable of this research is the variable Regulations Restricting Smartphone Use (X). Meanwhile, the dependent variable of this research is student behavior management (Y). The operational definition, description, and indicators of each variable are described in Table 1.

RESULTS AND DISCUSSIONS

Results

Desription of Research Respondents

The number of respondents determined as the sample for this research was 342 people. The research questionnaire was sent online to all respondents using the Google Forms tool. Until the deadline for returning the questionnaire, the number of respondents who returned the questionnaire completely filled out was 342 people. This means that the questionnaire return rate (response rate) reaches 100% of the total questionnaires distributed. The completed questionnaires were then tabulated, followed by a description/classification of respondents based on age, gender, number of smartphones owned, and length of smartphone use.

Table 1. Respondent description

Classification	Criteria	Number (people)	Percentage (%)
Age	15-17 year	7	2,0
	18-20 year	200	58,5
	More than 20 year	135	39,5
	Total	342	100,0
Gender	Male	90	26,3
	Female	252	73,7
	Total	342	100,0
Length of Use of Smartphone	1-2 year	72	21,1
	3-5 year	130	38,0
	More than 5 year	140	40,9
	Total	342	100,0
Number of Smartphones Owned	1 unit	326	95,3
	2-3 unit	15	4,4
	More than 3 unit	1	0,3
	Total	342	100,0

Source: Primary Data, Processed (2024)

Based on age, as shown in Table 1 above, the number of respondents in this study was dominated by respondents aged 18–20 years, namely 200 people (58.5%), followed by respondents in the age group more than 20 years, namely 135 people (39.5%), and the fewest were respondents in the 15–17 year age group, namely 7 people (2). Meanwhile, based on gender, from Table 2 above, the number of respondents in this study was dominated by women (students), as shown in Table 2, namely 200 people (73.7%), while men (students) were 90 people. (26.3%). Based on the number of smartphones owned, most respondents in this study had 1 smartphone unit, as shown in Table 1, namely 326 people (95.3%), followed by respondents who had 2-3 smartphone units, namely 15 people (4.4%), and the fewest were respondents who had more than 3 smartphone units, namely 1 person (0.3%). Furthermore, based on the experience or length of time respondents have used smartphones, it appears that, in general, respondents have had experience using smartphones for more than 5 years. This means that respondents have relatively sufficient experience to be able to convey their perceptions regarding smartphone use at STIBA Makassar. Based on Table 2 above, it can be seen that the number of respondents with 1-2 years of experience was 72 people (21.1%), the number of respondents with experience between 3-5 years was 130 people (38.0%), and the number of respondents with 140 people (40.9%) had more than 5 years of experience.

Evaluation of the Measurement Model

In conducting SEM-PLS analysis, research data analysis begins by evaluating the measurement model which aims to measure the validity and reliability of the variables in the research. The level of validity and reliability can be seen through convergent validity, discriminant validity and construct reliability (Ghozali, 2008). The results of data processing to see the loading value in order to test the convergent validity of the research indicators, discriminant validity and reliability (composite reliability) of research indicators and variables, namely looking at the Cronbach Alpha, composite reliability and AVE values are as shown in Table 2 below.

Table 2. Loading indicator values

No.	Variable/Statement Item (Indicator)	Loading Value	*Cronbach's Alpha*	*Composite Reliability*	AVE
Restricting Smartphone Use					
1.	The regulations limiting the use of smartphones by the campus were established to provide compassion for me so that I do not fall into violations or deviations	0.824	0.815	38.071	0.000
2.	Regulations limiting the use of smartphones by the campus are established to protect me from falling into violations or irregularities	0.856			
3.	Regulations limiting the use of smartphones by the campus were established to provide care for me so that I do not fall into violations or irregularities	0.857			
4.	Regulations limiting the use of smartphones by campus are established to build/grow my commitment so as not to fall into violations or irregularities	0.865			
5.	Regulations limiting the use of smartphones by campus are established to build/grow my commitment to always comply with existing student affairs regulations	0.874			
6.	The regulations restricting the use of smartphones by the campus made me aware of the responsibilities related to the consequences that occur when carrying out actions that violate the regulations	0.860			
7.	Regulations limiting the use of smartphones by campus can build my perspective that obedience/adherence to these regulations will have a positive impact on myself and others	0.864			
8.	Regulations restricting smartphone use by campus can build my perspective that deviant behavior will have a negative impact on myself and others	0.810			
9.	Regulations limiting the use of smartphones by the campus made me involved in implementing/implementing the regulations	0.820			
10.	My involvement and participation in maintaining and implementing these regulations will increase my compliance with these regulations	0.857			
11.	My involvement and participation in maintaining and implementing these regulations will reduce or even eliminate my deviant behavior towards these regulations	0.859			
12.	My involvement and participation in maintaining and implementing these regulations will have an influence in inviting, looking after each other, and obeying each other's rules for each individual/student on campus	0.842			
13.	I believe that the regulations limiting the use of smartphones by the campus are set so that I become a better person and reflect the identity of a student of Sharia knowledge	0.839			
14.	I believe that regulations limiting the use of smartphones by campuses are an obligation that must be obeyed/complied with	0.829			

15.	I believe that violations of regulations restricting smartphone use by campus will be subject to sanctions/punishments	0.747			
Overcoming Student Behavior					
1.	The regulations restricting the use of smartphones by the campus mean that I no longer use a smartphone during study hours	0.724	0.970	0.973	0.707
2.	The regulations restricting the use of smartphones by the campus mean that I no longer use my smartphone during break times, especially at night	0.705			
3.	The regulations restricting the use of smartphones by the campus mean that I no longer spend time playing games	0.811			
4.	Regulations limiting the use of smartphones by campus mean that I no longer spend time on social media such as Instagram, Facebook, YouTube, TikTok, and others.	0.804			
5.	The regulations limiting the use of smartphones by the campus have made me more disciplined (no longer late/coming in) in attending congregational prayers at the mosque	0.891			
6.	The regulations limiting the use of smartphones by the campus have made me more disciplined (no longer late/coming in) in attending taklim activities, dirāsah ta'ṣiliyah, and others.	0.904			
7.	The regulations restricting the use of smartphones by the campus made me focus more on studying and repeating (murāja'ah) lessons	0.859			
8.	The regulations limiting the use of smartphones by the campus allow me to take advantage of my presence on campus by interacting a lot and gaining knowledge as well as forming morals or character directly from the ustaz, supervisors and others on campus.	0.841			
9.	The regulations limiting the use of smartphones by the campus mean that I no longer communicate (dating) with members of the opposite sex who are not mahram or communicate (chat) with members of the opposite sex who are not mahram without any urgent need.	0.772			
10.	The regulations restricting the use of smartphones by the campus mean that I no longer listen to music	0.785			
11.	The regulations restricting smartphone use by the campus have made me less selfish and more concerned about the environment around me	0.878			
12.	The regulations restricting the use of smartphones by the campus made me more active and enthusiastic in participating in jamā'i charity.	0.891			
13.	The regulations restricting smartphone use by the campus made me better than before.	0.850			

Source: Primary Data, Processed (2024)

In Table 2 above, it can be seen that all research indicators have a loading value of more than 0.50, which indicates that all indicators have met the requirements for convergent validity. This means that all indicators used to measure research variables are declared valid (Ghozali, 2008). Also based on Table 2 above, the Cronbach's alpha and composite reliability values in the model for all variables are greater than 0.6 and 0.70 as reference values, so it can be stated that all constructs have good reliability and meet the requirements. In Table 2, it can also be seen that the AVE values for all variables are greater than 0.5, so that all constructs and indicators are declared reliable (Ghozali, 2008).

By fulfilling the two conditions above, namely validity and reliability, the research data is then analyzed structurally, namely to determine the path coefficient, t-statistical values, P-values, and R-Square.

Structural Model Evaluation

After the measurement model assessment has been carried out and all research constructs have been declared valid and reliable, the next stage is to test or evaluate the structural model. Structural Model Evaluation describes the relationships between variables based on substantive theory. Assessing the structural model can be done by looking at the structural model which consists of the hypothesized relationships between the variables in the research model.

By using the Bootstrapping method in SmartPLS 4, path coefficient values, t-statistic values and P-values are obtained as shown in Table 3 as follows:

Table 3.
Path Coefficient and t-Statistics

Path	*Coefficient*	*t-statistics*	*P-values*
Restricting Smartphone Use (X) → Overcoming Student Behavior (Y)	0.815	38.071	0.000

Source: Primary Data, Processed (2024)

The t-table value is calculated first with the provision that the alpha (α) value is 0.05 and the degree of freedom (df) is n-2. The amount of data used in this research is 342, so the df value is 340. The t-table value for df=340, two tail, and α=0.05 is 1,967. Based on Table 3 above, it can be seen that the t-statistics value is greater than the t-table value. Thus, the independent variable (Smartphone Use Restriction Regulations) has a significant influence on the dependent variable (Student Behavior Management) on the variable relationship path in the model.

Discussions

In an Islamic perspective, the purpose of establishing and implementing laws and regulations in Islamic law (*maqāṣid al-Syarīʿah*) is to realize human benefit in the world and the hereafter, in the present and in the future (al-Rummānī, 1995) . In relation to *maqāṣid al-Syarīʿah*, the establishment and implementation of regulations limiting the use of smartphones for students within the STIBA Makassar environment, is actually a policy that is imbued with the principles of *maqāṣid al-Syarīʿah*. This means that the stipulation and implementation of these regulations as an effort for Islamic social control has a purpose or objective, namely to realize the benefit of students, both in this world and the hereafter.

The world benefit that is expected is the achievement of learning goals or objectives, one of which can be indicated by learning/academic achievements, while the benefit of the afterlife that is expected is by preventing students from deviant behavior according to Islamic law and reflecting their identity as students of Sharia knowledge. When individual students are able to control their attitudes and behavior in accordance with Islamic law and existing norms, especially in the campus environment, then individual students are expected to become pious and pious individuals, with good religious qualities which lead to good academic or cognitive achievements as well.

From the results of data processing using SmartPLS 4, path coefficient values and t-statistic values and P-values were obtained to show their significance as in Table 3. In summary, Figure 1 below depicts the PLS estimation model of the proposed research model:

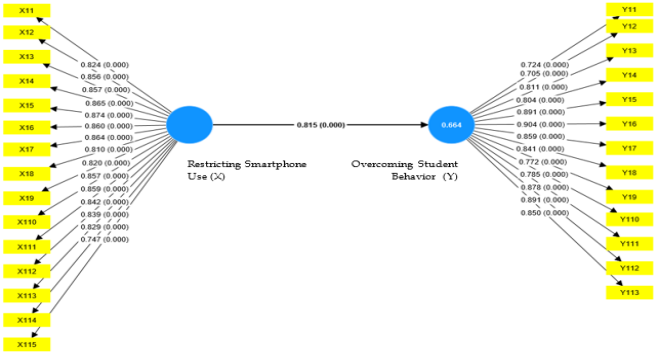

Figure 1. Structural model test results (path coefficient and p-values)
Source: Primary Data, Processed (2024)

The research hypothesis states that regulations limiting the use of smartphones as Islamic social control are thought to have a positive and significant effect on overcoming student behavior at STIBA Makassar. Based on the results of hypothesis testing, both in 23 and Figure 2, the results of the analysis support the proposed hypothesis with a positive relationship/influence direction. The results of the analysis found that the relationship between the variable Regulations Restricting Smartphone Use (X) and Student Behavior Management (Y) has a path coefficient value of 0.815 and p-values of 0.000. These results indicate that the path coefficient value is positive and the p-values are smaller than the value α = 0.05. Based on these results, it can be concluded that the Regulations Restricting Smartphone Use have a positive and significant influence on Student Behavior Management, so the research hypothesis is declared accepted.

The direction of the positive influence, as indicated by the path coefficient value, means that the higher the quality of implementing the Regulations on Restricting Smartphone Use, the higher the quality of Student Behavior Management. Respondents' responses to the Regulations Restricting Smartphone Use can also be empirically explained from the statements (suggestions and input) submitted in this research questionnaire. The results of this research indicate that students' perceptions of the Regulations Restricting Smartphone will encourage the prevention of student/student deviant behavior caused by the use of smartphones.

From the results of the loading analysis in Table 5, the indicators for Regulations Restricting Smartphone Use are in the form of "Regulations limiting smartphone use by campuses are established to build/grow my commitment to always comply with existing student regulations" and "Regulations limiting smartphone use by campuses are established to build /grow my commitment so as not to fall into violations or deviations", has the highest loading values, namely 0.874 and 0.865. This means that regulations limiting the use of smartphones by campuses are set to build/grow student commitment and are felt to be the dominant factor that can influence the effectiveness of regulations in dealing with deviant behavior.

CONCLUSION

Based on the results of the analysis and testing, it can be concluded that the Regulations Restricting Smartphone Use as Islamic social control have a positive and significant influence on student behavior management, which means that the higher the quality of implementing the Regulations Restricting Smartphone Use, the higher the quality of student behavior management. The research contributes to the theoretical understanding of behavior management in Islamic education by integrating Islamic values and highlighting the role of technological restrictions. Practically, it offers valuable insights for developing and implementing policies that enhance student behavior and character development in Islamic educational settings. This research uses limited research

objects, so it is recommended that in subsequent research, observations and evaluations be carried out on wider objects involving several campuses or Islamic boarding schools which also apply the same regulations and experience the same problem phenomena related to smartphone use, with conducting comparative studies, as well as expanding the measurement of research variables such as factors such as environment, academic rules, teaching staff, Murabbi, and others, so that the results become a reference in formulating more comprehensive policies in the context of developing and fostering the character of students in Islamic education environments, especially Islamic boarding schools. The data analysis method using the Structural Equation Meodelling (SEM) technique using the SmartPLS application or software cannot measure the combination of influences of variables individually and simultaneously (together), as in the SPSS application or software, which is widely used to examine causal relationships or influences between variables. Therefore, in future research, it is recommended to use the SPSS application or software to explore the framework or hypothesis of this research by testing the influence of variables individually and simultaneously (together), which cannot be measured in this research.

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