

# The Perceived-Religiosity, Perceived-Health, and Intention to Smoking Cessation

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## ABSTRAK

Penelitian ini bertujuan menguji variabel bebas sikap, norma subyektif dan perceived behavior control berpengaruh langsung terhadap intensi mahasiswa berhenti merokok melalui dua variabel pemoderasi. Survey data primer digunakan sebagai disain riset kuantitatif. Dalam kegiatan ini purposive sampling digunakan sebagai teknik pengambilan sampel. Pengumpulan data melalui survey dan wawancara dilakukan secara mendalam terhadap 300 mahasiswa yang telah berhenti merokok. Keabsahan data diuji menggunakan uji validitas dan reliabilitas butir, uji goodness of fit serta uji Structural Equation Model untuk mengukur pengaruh dua variabel pemoderasi terhadap model secara simultan. Simpulan hasil uji riset memaparkan pengaruh langsung tiga variabel bebas terhadap intensi mahasiswa berhenti merokok. Satu variabel pemoderasi kesehatan-terpersepsi mampu memperkuat pengaruh variabel bebas terhadap intensi mahasiswa berhenti merokok. Satu variabel pemoderasi religiusitas-terpersepsi tidak mampu memperkuat pengaruh variabel bebas terhadap intensi mahasiswa berhenti merokok. Implikasi bagi pamangku kepentingan diperlukan kegiatan lebih aktif terkait upaya meningkatkan kesadaran konsumen dari dampak buruk rokok melalui aspek kesehatan-terpersepsi untuk semakin meningkatkan intensi mahasiswa berhenti merokok.

## ABSTRACT

The research objective is to test the independent variables of attitude, subjective norms and perceived behavior control which have a direct influence on student intention to smoke cessation with two moderating variable. Primary data surveys are used as a quantitative research design. In this activity purposive sampling was used as a sampling technique. Data was collected through surveys and in-depth interviews with 300 students who had stopped smoking. The validity of the data was tested using item validity and reliability tests, goodness of fit tests and Structural Equation Model tests to test the influence of two moderating variables on the model simultaneously. The test results show that there is a direct influence of three independent variables on students' motivation to stop smoking. One moderating variable perceived- health is able to strengthen the influence of the independent variable on student intention to smoke cessation, while one moderating variable perceived-religiosity is not able to strengthen the influence of the independent variable on the student intention to smoke cessation variable. The implication for stakeholders is the need for more intensive activities to raise consumer awareness about the harmful effects of smoking through perceived health aspects, in order to further increase the intention of students to quit smoking.

## 1. INTRODUCTION

Entering the final year of the 2022-2024 National Medium Term Development Plan (RPJM), efforts to reduce the number of adolescentsmokers in Indonesia are still facing significant challenges. The Global Youth Tobacco Survey (GYTS) survey in 2019 stated that the prevalence of adolescentsmoking in Indonesia reached 19.2 percent, much higher than the global prevalence of consumption in the same age group at 6 percent according to the World Health Organization (WHO). There are several reasons for the step decline in the number of adolescent smokers in Indonesia. Affordable cigarette prices make it easier to buy and

facilitate the availability of cigarette sticks by buying retail when prices increase. The ease of buying stick cigarettes among teenagers has increased the trend of buying stick cigarettes among students so that there has been an increase from 11 percent in 2014 to 13 percent in 2019 (Reskiaddin & Supriyati, 2021). The consumer behavior of students at several private universities in Klaten to stop smoking with the issuance of the MUI fatwa on the prohibition of smoking and terrifying images warning of bad health effects on cigarette packaging was analyzed in this research by applying the TPB.

Despite the rapid growth in the number of new smokers among the younger generation in Indonesia, there is a lack of research examining the intention of young people to quit smoking along with the factors that influence it, as well as efforts to strategize increasing the number of young smokers who quit smoking in Indonesia. This study aims to address this gap by assessing the development of a behavior theory that has been strong in behavioral science research, the Theory of Planned Behavior (Bosnjak, Ajzen & Schmidt 2020).

Findings from various studies show that indicators from various variables can be developed to be relevant and applicable to different observation objects. The relevance of using the model in various observation situations further strengthens the model's usefulness. Based on the development of the Theory of Planned Behavior, this study has the novelty of modifying the model on the antecedents of students' intentions to quit smoking by adding two moderating variables, perceived-religiosity and perceived-health.

For society, smoking is considered to be more harmful than its benefits, but smoking has become deeply rooted in some communities around the world. The Indonesian Scholar Board (MUI) has issued a *fatwa* (advice) that smoking is *haram* (forbidden) for Muslims and the Government has issued horrific graphic designs warning of the bad health effects for smokers on the majority of cigarette packs (Andriani, et al. 2023). Cigarettes are the cause of various public health problems experienced by the majority of the world's population. Cigarettes are a product that has a relatively high level of consumption in society (Mediakom, 2022). Negative problems caused by smoking are a national problem that is prioritized for efforts to overcome them because the problems caused by smoking involve various problems in life, namely economic, socio-political, cultural aspects and especially the most dominant health aspects (Taufick et al., 2023).

Indonesia has the third highest number of smokers in the world after China and India. The number of smokers continues to increase from year to year, especially among beginners and young people, which has the potential to cause various problems in the future (Mediakom, 2022). One of the biggest problems is the negative impact on public health which will result in a decline in the quality of the nation's human resources. The 2022 National Socio-Economic Survey (Susenas) showed that people with low economic conditions have higher levels of cigarette consumption than consumption of other commodities (BPS, 2022). Reducing the level of cigarette consumption in Indonesia is very difficult. This is because smoking is an addictive behavior that is considered normal in Indonesia. The 2018 Basic Health Research Survey (Riskesdas) showed worrying data, there was a significant increase in the number of young smokers of every age (Andriani et al., 2023).

Taufick et al. (2023) explain that cigarette smoke contains 4000 types of chemicals and 40% of them are toxic substances such as nicotine, tar, carbon monoxide gas, nitrogen oxide, hydrogen cyanide and many other dangerous and toxic substances that can have a negative impact on human health. Another dangerous aspect is the effect of cigarette smoke on passive smokers. Seeing the negative impact of cigarettes, smoking behavior must be avoided and if it is in the addiction stage, it must be stopped as soon as possible. In an effort to stop smoking behavior, active smokers must have knowledge and be aware of the many negative health impacts resulting from smoking (Andriani et al., 2023).

The problem that arises among smokers is the difficulty of trying to stop smoking which leads to motivation and this behavior being in vain. Quitting smoking is not an easy effort because the addictive elements contained in cigarettes attack the brain. There is an LM3 Survey of a Non-Governmental Organization that addresses socio-economic problems in society, 67 respondents stated that they had difficulty quitting smoking (Mediakom, 2022). Research findings show that the methods used by smokers are not appropriate to achieve optimal smoking cessation behavior (Mediakom, 2022).

Smoking cessation behavior is closely related to intention, a motivation that is felt very strongly which leads to behavior. When individuals want to carry out activities, there is strong motivation as encouragement. The intention to quit smoking is a very strong motivation caused by various driving factors such as psychological factors, religiosity factors and health factors (Tseng et al, 20194). There is a psychological drive for the individual's intention to stop smoking due to physical factors, which require special therapy with new smoking cessation activities. This strong urge due to psychological factors, religiosity and health encourages individual intentions and behavior to stop smoking as soon as possible. There are findings from various studies in international journals that the Planned Behavior Theory is

relevant in being able to predict the behavior of individuals consuming addictive substances, creating a phenomenon and research gap for this activity by developing a model (Tapera et al., 2020).

This research is urgently carried out considering that the number of young smokers in Indonesia is increasing, despite various efforts for prevention and handling of youth addiction to cigarettes that have been carried out (Reskiaddin & Supriyati, 2021). Currently, research needs to continue to be carried out through elaboration on the topic of student intention to smoke cessation because this theme is still relatively limited by several researchers (Tapera et al., 2020). Based on these findings, there is an opportunity to conduct re-research by proposing a model of motivational behavior for students to stop smoking through the independent variables of attitude, subjective norms and perceived behavior control with perceived religiosity and perceived health as moderating variables. The object of observation was carried out on a number of students in Klaten Regency. Proposed problem formulations based on research background are emphasized on two things, i.e. do attitude factors, subjective norms and perceived behavior control have a direct effect on students' intentions to quit smoking and are perceived religiosity and perceived health able to strengthen the direct influence of the three independent variables on students' intentions to quit smoking?

Theory of Planned behavior is a theory that has been established in the realm of behavioral science research globally, explaining that individual behavior with high involvement requires belief and evaluation to foster subjective norms, attitudes and perceived behavior control with the intention of being a mediator. This activity is influenced by various accompanying factors in the form of intentions which have an impact on behavior (Ajzen, 2020). The decision to stop smoking is a new behavior carried out by students with high involvement. In making the decision to stop smoking, various internal factors such as perception, personality, attitudes, intentions and learning factors are involved. External factors have a strong influence on intentions and behavior, such as peers, parents, neighbors and reference groups as well as role models. This factor is known in the realm of behavioral science research as subjective norms. The next process is towards intention, the individual must be able to measure perceived behavioral control, namely the condition that the individual believes that the action he is taking is easy or difficult to carry out by understanding the various risks, challenges, obstacles and problems that arise when making a decision. This phenomenon is known by the popular term whether the individual has the will but is unable or the individual is willing and able (Mediakom, 2022).

Research by Cheng et al. (2019) explained that attitudes are defined as tendencies in people that can be learned to respond to objects or classes of objects either directly or simultaneously. This response can be felt by individuals in a variety of likes and dislikes with various conditions observed during a certain period. This response is relevant to research on students' intentions when they go through the process of quitting smoking. Liu, Lee, & Hwang. (2021) explained that attitudes are affection or feelings that arise in individuals due to the emergence of stimuli related to intentions. Based on the two definitions above, attitude can be concluded as a tendency in individuals that can be studied when responding to or receiving stimulation towards objects of observation. Attitudes will appear in individuals consistently both when they like and dislike them. Attitudes are formed in individuals through a process that is continuous, tiered and takes a long time.

In everyday life we can take a simple example. In Indonesian society, a strong attitude has been formed as a result of understanding, knowledge, experience, and a long process of observation that the latest series of Mercedes-Benz saloon cars made by European manufacturers have been perceived as a sturdy and powerful means of transportation compared to saloon cars made by Chinese manufacturers. At a railroad crossing without a doorstop, this car was found to have had a serious accident when it was hit by a train traveling at high speed, causing the car to be crushed to pieces. The reality on the ground is that the condition of this car is serious, but it is still unable to change the perception, the attitude that has been ingrained in the consumers' minds through the assessment that Mercedes-Benz cars made by European manufacturers are still sturdy, reliable and powerful cars compared to cars manufactured from China.

Tran, Nguyen, & Tang. (2023) explained subjective norms are individual perceptions of other people who will support or not support the realization of an action. In this research, this action is the student's intention to stop smoking. This research explains that subjective norms are the product of beliefs held by individuals that come from other people such as friends, family, reference groups which are able to strongly influence an action. Subjective norms are related to social pressure that requires individuals to do something (Syaputra & Coralia, 2022). This perception is subjective in nature so this variable is called subjective norm. Beliefs will also influence subjective norms (Ajzen, 2020). Attitude towards behavior is a function of the individual's belief in the behavior that will be carried out (behavioral belief) (Ajzen, 2020). Meanwhile, subjective norms are a function of individual beliefs obtained from environmental views regarding attitude objects related to the individual (normative belief) (Ajzen, 2020).

Religiosity is the belief and practice of an individual's understanding of holiness and supernatural things. Religion and daily practices can be related to various accompanying aspects and influences a person's goals, intentions and inner satisfaction so that it can become the main force in shaping individual behavior (Nayu & Qomariyah, 2023). The main source of religious belief is related to the commands that individuals must carry out and the prohibitions given by God Almighty. Islam prohibits consuming alcoholic beverages, consuming all products that contain enzymes derived from pork and alcohol and prohibits products that can damage the human body and soul (Chen et al 2019). There are other sources related to culture, norms, attitudes and values in society whose guidance comes from the religious holy book. The concept of perceived religiosity can be a gap in the TPB that can influence people intentions and can be explored more widely as a theoretical gap (Schifmann & Kanuk, 2020). There is research by (Baumsteiger & Chenneville, 2019) which stated that there is a strong influence of perceived religiosity on an individual's intention to consume or stop consuming a prohibited product. The concept of *halal* (permitted) and *haram* (forbidden) cigarettes for some scholars in Indonesia still leaves different opinions, even though the Indonesian Scholar Board (MUI) has declared smoking to be a *haram* act, making this research an interesting research gap to examine the influence of religiosity as a moderating variable. A moderating variable is one that is beyond the control of the subjects being observed and is able to strengthen the relationship between the independent variable and the dependent variable (Meriam, Maslihah, and Chotidjah, 2024).

Health awareness is a concern and attention of consumers to achieve better conditions and are motivated to improve, maintain body health and improve the quality of life through implementing various patterns of healthy living activities (Chen et al, 2019). Today's consumers are increasingly considering health factors in the various products they consume with changes in individual activity patterns towards a healthy lifestyle. Consumers are now increasingly considering various nutritional content in the products they consume (Reskiaddin & Supriyati, 2021). For the majority of cigarette consumers in Indonesia, the public actually already has adequate understanding and knowledge of the dangers of smoking through the negative impacts on health aspects, but cigarette production by cigarette manufacturers is still increasing significantly. Ignoring smoking behavior in Indonesia, especially in the young age group, students make the influence of perceived health moderating variables interesting to examine as a research gap.

Bosnjak, Ajzen, & Schmidt (2020) explained that the Theory of Planned Behavior he put forward was not an exclusive model for predicting behavioral intentions. This model is flexible to be expanded for research by adding various predictors which are able to significantly explain various variances in intentions. Several researchers have expanded the theory of Planned Behavior including Choudhury and Noosorn (2019) who explained that the Planned Behavior theory does not include other variables such as moral obligations, habits, religiosity and self-identity which can predict intentions and behavior more accurately. Various research findings that reveal limitations of the model can become a research gap or theoretical gap in future research (Choudhury and Noosorn, 2019). The findings of various research show that there are indicators from various variables that can be developed so that they are relevant to be applied to various objects of observation. The relevance of using the model to various observation situations makes the relevance of the model's usefulness increasingly stronger. Based on the development of the TPB, this research has novelty modified the model on the antecedents of students' intention to quit smoking by adding two moderating variables, namely perceived religiosity and perceived health.

This research aims to test whether the dependent variable of students' intention to quit smoking is directly influenced by three independent variables, namely attitude values, subjective norms and perceived behavior control with perceived religiosity and perceived health values as moderating variables. The output of the next stage of research activities is the impact of the model's significance on students' intentions to quit smoking. The findings of this model can be used as a reference for creating textbooks for character education courses for students at undergraduate and diploma levels.

## 2. METHOD

The data collected in this quantitative research were analyzed in two stages: primary data analysis and secondary data analysis. Primary data is obtained directly from interviews or questionnaires (Hair et al., 2019). This data is typically referred to as respondent data and can be found in compilation form or as files. For this study, primary data was collected by distributing questionnaires using purposive sampling to select 300 students. The selected respondents were adults with sufficient understanding to evaluate smoking behavior, the negative effects of smoking, and other factors that influenced it. In the second stage, secondary data analysis was conducted, involving analysis of sources from journals, the internet, books, and other relevant literature



The attribute questionnaire design includes three independent attitudinal variables: including the tendency to react affectively in response to the risks of smoking and intention to quit smoking (Tapera et al., 2020), subjective norms: individual beliefs to comply with directions or recommendations of people around them in quitting smoking activities (Tapera et al., 2020), perceived behavior control: belief factors from oneself and from outside (self-efficacy) through smoking cessation activities (Tapera et al., 2020), students' intentions to quit smoking: tendencies, strong desires of individuals to quit smoking (Tapera et al., 2020) Perceived religiosity moderating variables: religiosity knowledge of forbidding smoking, ideology of permitting smoking in religion, public practice of religion, private practice of religion and experience of religiosity from smoking addiction and smoking cessation (Huber & Huber, 2012) and perceived health: various psychological drives caused by health factors which strengthens the intention to quit smoking (Reskiaddin & Supriyati, 2021).

Survey research activities through distributing questionnaires to students were carried out at three private universities in Klaten Regency: Widya Dharma University of Klaten, Muhammadiyah University of Klaten and Madani high school of administration (STIA) with a total of 300 respondents using purposive sampling. Advanced model testing was carried out through validity and reliability tests, confirmatory factor tests through multivariate correlation regression analysis assisted by the AMOS 21 statistical programming tool.

### 3. RESULT AND DISCUSSION

#### Result

##### *Findings*

Respondent characteristics are used to see two profiles of respondents in the research. Primary data on student respondents in Klaten who quit smoking based on age was obtained by two age categories of young students, 18 to 21 years (20%) and 22-26 years (80%), from the findings it can be interpreted that the majority of respondents were mature, mature students. They have sufficient experience and knowledge during their college years by going through periods of experiencing cigarette addiction, experiencing negative health effects or experiencing periods of quitting smoking.

The distribution of respondents' monthly student income found that income was less than 700,000 per month (5%) followed by 800 to 2,000,000 per month (30%), and above 2,000,000 per month (65%). This finding means that students as research respondents have monthly pocket money above Province Minimum Wages in Klaten Regency. They fall into the category of students with a middle to upper standard of living so they are able to spend part of their income on buying cigarettes.

##### *Validity Test*

The validity test is related to measuring the tools used to measure students' intentions to stop smoking. If appropriate, the instrument is concluded as a valid instrument. The variance extract value can be accepted by the expert panel or is said to be a valid instrument if it has a value above 0.50 (Hair et al 2019). The results of the validity test of the attitude variable obtained a variance extracted value of 0.58, a subjective norm of 0.55, perceived behavior control 0.59, perceived religiosity 0.62, and perceived health 0.65.

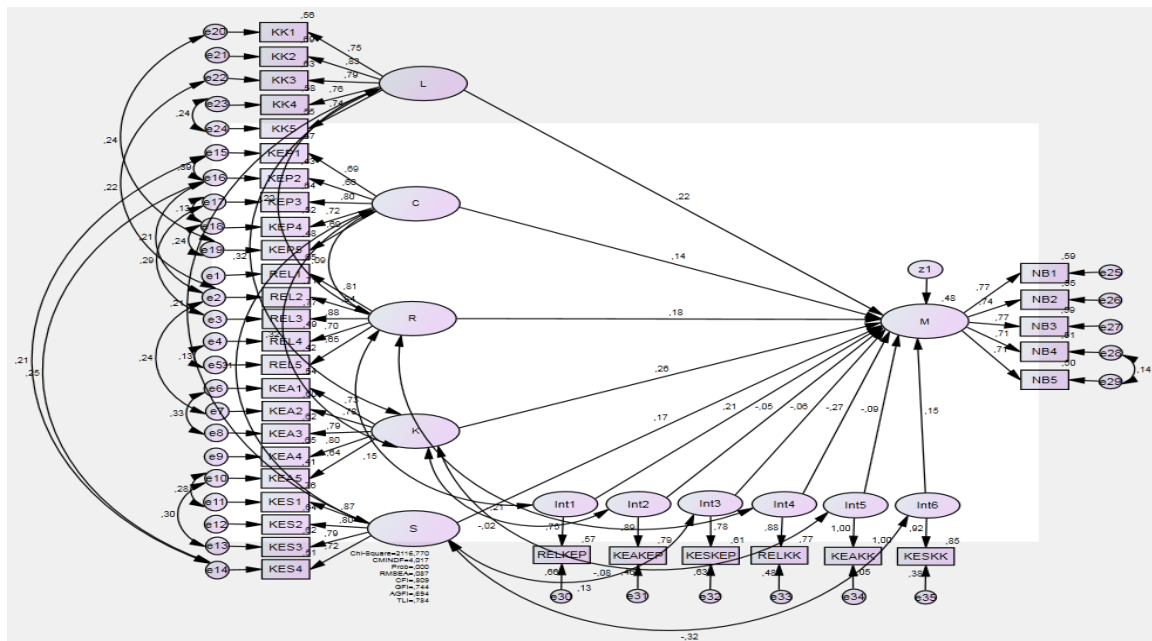
The results of this validity test show that the variance extracted values for all independent variables, dependent variables and moderating variables meet the required criteria. This can be interpreted as the indicators extracted by the latent construct being able to measure what it should measure.

##### *Reliability Test*

A data measuring instrument and the resulting data are reliable if the instrument consistently produces the same results every time a measurement is made (Hair et al., 2019). In this research, the construct reliability test is used as a reliability test. The minimum reliability value of the indicators forming latent variables is acceptable if it has a value above 0.70 (Hair et al., 2019). The results of the reliability test for the attitude variable obtained a value of 0.85, subjective norm 0.77, perceived behavior control 0.88, perceived religiosity 0.89 and perceived health 0.90.

The construct reliability value from the reliability test for each latent variable in this research obtained a value above 0.7. The findings of this research concluded that the measuring instrument was reliable or consistent.

Data Analysis



**Figure 1. Research Model and Feasibility Test Results**  
Source: Primary Data 2024

**Table 1. Full Model Test Results**

No.	Good of Fit Index	Cut off Values	Result	Model Evaluation
1	Chi Square	Small < 385.058	1116.770	Relatively Good
2	Probability	>0.05	0.000	Less Good
3	RMSEA	<0.09	0.087	Good
4	GFI	>0.70	0.744	Good
5	AGFI	>0.70	0.694	Less Good
6	CMIN/DF	<2.00	4.017	Less Good
7	TLI	>0.80	0.884	Good
8	CFI	>0.80	0.809	Good

Source: Primary Data 2024

Based on the feasibility test of the causal relationship model, the independent variables, attitude, subjective norms and perceived behavior control, directly influence the dependent variable on students' intention to quit smoking through two moderating variables, perceived religiosity and perceived health, it is concluded that the model is fit with evidence from the test seen from the chi square value and model significance level.

Hypothesis Testing

Proving hypothesis testing through the Critical Ratio (CR) Test. The complete presentation of the hypothesis test results is outlined in Table 2.

**Table 2. Hypothesis Testing**

No.			Estimate	SE	CR	p	Result
1	Attitude	Intention to Quit Smoking	0.479	0.192	4.367	<0.001	Significant
2	Norm subj	Intention to Quit Smoking	0.306	0.098	3.556	<0.001	Significant
3	PBC	Intention to Quit Smoking	0.547	0.047	5.857	<0.001	Significant
4	Interaction 1	Intention to Quit Smoking	0.484	0.507	4.765	<0.488	Not-Significant
5	Interaction 2	Intention to Quit Smoking	0.495	0.308	5.865	<0.557	Not-Significant

No.			Estimate	SE	CR	p	Result
6	Interaction 3	Intention to Quit Smoking	0.584	0.455	4.635	<0.068	Not-Significant
7	Interaction 4	Intention to Quit Smoking	0.684	0.657	5.675	<0.007	Significant
8	Interaction 5	Intention to Quit Smoking	0.584	0.477	4.665	<0.006	Significant
9	Interaction 6	Intention to Quit Smoking	0.464	0.557	3.865	<0.035	Significant

Source: Primary Data 2024

The hypothesis test outlined in [Table 2](#) shows that the dependent variable of students' intention to quit smoking can be significantly influenced by the three independent variables: attitude, subjective norm and PBC. One moderating variable of perceived health is able to strengthen three independent variables on students' intentions to quit smoking. One moderating variable of perceived religiosity is not able to strengthen the three independent variables on students' intentions to quit smoking because the probability value ( $p$ ) is  $> 0.05$ .

## Discussion

The results of the 2021 Global Adult Tobacco Survey (GATS) Indonesia research presented by ([Mediakom, 2022](#)) examined the role of stick cigarettes in the early smoking period of adolescent. In the younger population, cigarette consumption dominates and has a decreasing trend with increasing age. Another finding is that consumption of packaged cigarettes tends to increase among older smokers. From the research report most teenagers chose stick cigarettes because they were easy to get in small stalls, street vendors and grocery stores. This easy access encourages respondents to buy cigarettes repeatedly, thus spending pocket money of IDR 30,000 to 200,000 per week. This amount is equivalent to half of the average weekly per capita expenditure of the Indonesian population in March 2023 based on data from the Central Statistics Agency ([BPS, 2023](#)). The findings of this research are in line with the data findings of student smoker respondents in Klaten Regency, they have middle to upper level purchasing power above the minimum wage per month but ironically this purchasing power is spent on cigarette products. The government needs to take more firm, straightforward and comprehensive steps to prevent the increase in young smokers. Consumption of tobacco products in children has long-term negative consequences from a health, economic and social perspective, so immediate steps are needed to reduce cigarette consumption among children and adolescent consumers.

Referring to the results of the regression test, it shows that three independent variable predictors are able to influence the intention to stop smoking. This means that every activity that increases the three independent variables will increase the influence on the dependent variable. This is in line with the findings of the Planned Behavior Theory that intentions can be influenced by three independent variables as predictors. Regression test findings show that the independent variable, Perceived Behavior Control has the greatest influence on students' intention to stop smoking. For student smokers in Klaten, the perception of this variable has a dominant influence on the dependent variable according to research findings ([Tapera et al., 2020](#); [Syaputra & Coralia, 2022](#)). Perceived Behavior Control describes an individual's confidence in carrying out intentions and behavior related to competence and obstacles to achieving behavior. Belief in control coupled with various inhibitors and drivers of behavior is very important in generating the intention to stop smoking. The perception of behavioral control of smoking students in Klaten is very strong, meaning that smokers have very strong beliefs and behavioral control to encourage them to continue to quit smoking even though various obstacles, social and emotional environmental challenges arise that tempt them to return to smoking. Student smokers in Klaten have very good self-control to continue smoking cessation activities.

In the realm of behavioral research there is another term of Perceived Behavior Control, namely self-efficacy. Self-efficacy is a person's belief in their own abilities ([Li, 2020](#) ; [Pramerta, 2021](#)). There are several factors that influence self-efficacy, namely individual success experiences (mastery experience), other people's experiences (vicarious experience), verbal persuasion and various physiological and emotional states. From this research, it was found that self-efficacy was able to influence as a predictor of students quitting smoking with the largest cr value, meaning that this predictor had a dominant influence. This is in accordance with research findings of respondents who have stopped smoking in the United States, if individuals have high self-efficacy, then respondents will try as much as possible to continuously train themselves to stop smoking. This activity begins with trying to stop smoking one day and continues the next day so that respondents become more accustomed to not smoking. This means that all of this is due to the increasing self-confidence of individual smokers to reach the final stage of trying to stop smoking ([Wang et al. 2021](#)).

Religiosity is an interesting factor to study for its influence on smoking behavior. High religiosity will make individuals always try to obey every prohibition that is taught regarding what they can or cannot consume, get used to following worship rituals, believe in religious knowledge and experience religious experiences (Muzakkir, 2013). The research findings of perceived religiosity were unable to strengthen the three independent variable predictors of the student smoking cessation variable. This finding is in line with research (Junainah et.al. 2021; Nayu & Qomariyah, 2023). The high level of religiosity along with maturity will further strengthen their behavior in quitting smoking. The age of smoking student respondents in Klaten Regency is in the young age category so they still have a low level of religiosity, meaning that a low level of religiosity is not able to strengthen the three predictors of students' intention to stop smoking. The Klaten region is in the demographic realm of rural, agricultural areas and has strong acculturation with native Javanese culture so that it is known as "Islamic syncretism" (Nugroho et al., 2024). In contrast to the north coast region of Java which has a strong religiosity category. The findings of this research are different from the research of Asraf (2019) and Amri et al. (2024) who took the observation of smoking community respondents in the West Sumatra and Bone regions of Southeast Sulawesi. This region has a strong Islamic community religiosity category so that the MUI *fatwa* and anti-smoking campaign activities, the prohibition of smoking through formal education from a religious perspective which is carried out through various roles of initiators, role models, communicators and local scholar figures are able to strongly influence the community to stop smoking. There are still differences of opinion between various Islamic religious organizations and scholar advice which consider smoking not forbidden but only *makruh* or permissible (Asraf, 2019). The existence of these differences in understanding further strengthens the role of perceived religiosity in this research activity for student smokers in Klaten Regency and has not been able to strengthen the predictor variables for intention to quit smoking.

Perceived health is able to strengthen three independent variable predictors of students' intention to quit smoking according to research findings by (Reskiaddin & Supriyati, 2021; Andriani et al., 2023; Kurniawan et al. 2023). Smokers want to stop smoking because of the influence of motives, social support and coping mechanisms. Through emotional and instrumental support from the family, respondents had past experiences with themselves and their families of being affected by inflammatory diseases, lung cancer, coronary heart disease and various other deadly diseases which had an impact on reducing the quality of life. Environmental factors and psychosocial factors are strongly felt by respondents (Reskiaddin & Supriyati, 2021). The strength of this past experience has a moderating influence which can strengthen the three independent variable predictors of students' intention to quit smoking.

Warnings of negative health impacts are delivered through scary and disgusting images from cigarette packs plus personal experiences experiencing pain due to cigarettes influenced respondents' fear. Informants felt afraid and disgusted by the health warning images on tobacco packaging, so they wanted to reduce cigarette consumption after seeing the images on the packaging. The fear of the scary picture of health aspects for smokers makes the moderating variable able to strengthen the three predictor variables of the dependent variable. This is in accordance with research findings (Mayasari et al., 2018; Andriani et al., 2023).

The limitation of this quantitative research is that the dependent variable studied is limited to students' intention to stop smoking. In future research, it is necessary to develop a broader scope regarding the themes and targets of respondents, not limited to the Klaten Regency area but reaching more widely in the Soloraya area and the Central Java Province area which has a variety of cultures and different levels of religiosity-perception of society. The theme of future research is to develop a broader test of the model of students' smoking intentions influencing actual smoking cessation behavior as well as developing the influence of other variables besides the moderator, namely through mediating variables

#### 4. CONCLUSION

Contains The description of the research results above concludes that students' intentions to quit smoking can be directly influenced by three predictors of attitude values, subjective norms and perceived behavior control. The moderating test of the perceived religiosity variable is unable to strengthen the influence of the three independent variables on students' intentions to quit smoking. The moderating test of perceived health variables is able to strengthen the three independent variables on students' intentions to quit smoking. Theoretical and managerial contribution of research findings: for stakeholders in higher education institutions, the health service, indicators of independent variables must continue to be monitored, activities must continue to be increased because they are able to have a direct influence on the variable of students' intention to quit smoking. The government needs to significantly increase tobacco excise to 25 percent, thereby suppressing the purchasing power of teenage smokers. Another effort, the



government needs to prohibit the retail sale of cigarettes. Prohibiting the sale of cigarette sticks in grocery stalls and small stalls can reduce the prevalence of smoking among children and teenagers. From a health regulatory perspective, the Government needs to ensure strong and comprehensive tobacco product control regulations, such as a ban on cigarette advertising in open places. By including tobacco product control articles in the Health Law regulations, the Government is showing its commitment to protecting the younger generation from the bad effects of smoking. The model findings regarding the moderating variable of perceived religiosity have not been able to strengthen the influence of the independent variable on students quitting smoking. Stakeholders must further increase activities to strengthen the value of perceived religiosity. Likewise with the perceived health variable, activities to improve this moderating variable in the future must be further increased. Findings from research show that the category of student smokers in the Klaten area is still in the middle-low religiosity category.

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