

# How Religiosity Reduce the Intention of Alcohol Consumption in Muslim Undergraduate Students: Evidence from Indonesia

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## Abstract

This study investigates the effect of intrinsic and extrinsic religiosity on youth alcohol use intention in Indonesia using Theory Planned Behavior (TPB) framework. The purposive sampling technique was employed. The criteria of respondents are active undergraduate students who study in Surakarta. The sample comprised of 362 undergraduate students, with 63.56 percent identifying as female. A total of 53 students have ever consumed alcoholic beverages, with 90.56 percent of them identifying as male. The average age of our respondent is 19.5 years old, with a maximum of 26 years old and a minimum of 17 years old. Structural Equation Model-Partial Least Squares, or SEM-PLS is the method that we employ to estimate the relationship of each variable. Our study shows intrinsic religiosity has negative effect on intention to consume alcohol ( $\beta = -0.168$ ,  $p < 0.10$ ,  $t = 1.945$ ). In addition, intrinsic religiosity also has negative significant effect on all TPB factors, such as alcohol-supported attitude ( $\beta = -0.444$ ,  $p < 0.01$ ,  $t = 4.099$ ), alcohol-supported subjective norm ( $\beta = -0.436$ ,  $p < 0.01$ ,  $t = 4.205$ ), and internal perceived behavioral control ( $\beta = -0.271$ ,  $p < 0.05$ ,  $t = 2.464$ ). Partial mediation exists between the relationship of intrinsic religiosity, alcohol-supported attitude and intention of alcohol drinking ( $\beta = -0.165$ ,  $p < 0.05$ ,  $t = 2.263$ ). Thus, It implies that intrinsic religiosity is able to affect intention of alcohol drinking through attitude and intrinsic religiosity itself are able to affect intention of alcohol drinking directly. This study could provide support for the inclusion of religion as a discipline in the curriculum for undergraduates. Nonetheless, the religion course should encompass not only religious values that emphasize the expectation of a reward for completing specific actions, but also values that emphasize the act of worshiping and honoring God without expecting too much reward in return.

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## INTRODUCTION

Alcohol consumption, which is often characterized by excessive and abusive use, not only poses a serious risk to individual's health but also morphs into a significant problem with far-reaching consequences. Alcohol consumption can lead to various health issues, from cardiovascular problem and liver damage to mental health problem, such as depression, cognitive decline issue and anxiety (Cooke et al., 2016; Ward & Guo, 2020). In addition, alcohol consumption is also associate with impulsive and reckless behavior, such as traffic

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accident, suicide, sexual assault, high-risk sexual activity, which not only hurt alcohol abuser, but also surrounding residents (Hensley, 2001).

Alcohol consumption problem also occurred in Indonesia. Indeed, the consumption of alcohol is not as widespread as in many Western and developed countries. However, the number of underage drinking and illegal alcohol consumption are alarming (Respatiadi & Tandra, 2018). The high price of legal alcohol encourages people, especially young generation, in seeking alternatives by drinking illegal alcohol beverages. Even worse, illegal alcohol mostly contains harmful or unallowed ingredients, such as methanol (Arlinta, 2023), mosquito repellent (Artantiani, 2016), and flu-medicine (Anjungroso, 2017).

Numerous studies have found that religiosity has been consistently able to reduce or even prevent various age groups, including college students, to consume alcohol (Lucchetti et al., 2012; Tomkins et al., 2023; Wells, 2010). College students are more susceptible to engaging in excessive alcohol consumption due to the fact that they are undergoing their initial experience of autonomy and independence away from direct parental oversight (Arria et al., 2008). Undeniably, the influence of religiosity in deterring alcohol addiction among the younger demographic is substantial and pertinent. Nevertheless, the mechanisms that underpin these relationships are still unknown and require further investigation.

To examine how religiosity affect alcohol intention to consume, the Theory of Planned Behavior (TPB) is chosen as a basis paradigm in this study (Huchting et al., 2008; Kim & Hong, 2013; Norman, 2011; Norman et al., 2012; Zhao et al., 2020). The Theory of Planned Behavior (TPB) offers a methodical approach to study of how thoughts, beliefs and social norm affect individual's intention and behavior. TPB propose that individual's value and beliefs (attitude), perception of others toward particular behavior (subjective norm), and the extent to which the individual believes they can control taking action (perceived behavioral control) are determinant of individuals' intention and behavior. On the other hands, level of individuals' religiosity may have a considerable influence on an individual's attitude, subjective norms, and perceived behavioral control. In addition, based on Allport and Ross (1967), we also categorize religiosity into two category, namely intrinsic and extrinsic religiosity. This categorization will help us to answer whether religiosity that does not bound with expected return (intrinsic religiosity) and religiosity that bound with expected return (extrinsic religiosity) or both of them simultaneously could reduce alcohol drinking intentMion.

## Literature review

### ***Religiosity, TPB, and alcohol intention***

The Theory of Planned Behaviour (TPB) is a psychological framework that helps in predicting human behaviour by evaluating three important factors: attitude towards the behaviour, subjective norm, and perceived behavioural control (Ajzen, 1991). Those three factors influence a person's intent to engage in a particular behaviour, such as alcohol use. Attitude toward the behavior refers to an individual's overall evaluation of the behavior, including whether they believe it is favourable or unfavourable. Subjective norm reflects social pressure or influence from others regarding the behavior. It includes the person's perception of what important people in their life expect them to do. Perceived behavioral control represents the person's perception of their ability to perform the behavior. It takes into account factors like self-efficacy and the presence of barriers or facilitators. In addition, numerous studies have utilised the Theory of Planned Behaviour (TPB) as a framework for comprehending alcohol intention and consumption (Huchting et al., 2008; Kim & Hong, 2013; Norman, 2011; Norman et al., 2012; Zhao et al., 2020). TPB provides a systematic framework for examining the influence of social norms, attitude, and beliefs on the intention and decision of individuals. In addition, alcohol consumption is more prevalent among Indonesian college students as they are

currently experiencing their first encounter with autonomy and independence in an environment unsupervised by their parents.

In the context of alcohol drinking, some studies have successfully pointed out the important of attitude towards the behaviour, subjective norm, and perceived behavioural control on alcohol consumption or intent to consume (Kim & Hong, 2013; Zhao et al., 2020). However, some studies found that only some factors or one factor that have significant effect on alcohol intention. Take for example, Hutching et al. (2008) found that attitude and subjective norm has significant role in forming alcohol intention, while Norman et al. (2012) and Norman (2011) reveals that only attitude that has significant role in affecting alcohol intention.

Numerous studies have shown the significant role of religiosity on alcohol consumption. Religiosity encourage individuals to have set of beliefs and follow it according to religion (Johnson et al., 2001). These beliefs define what is regarded right or wrong, which in turn influences an individual's attitudes (Jonason et al., 2022; Minton et al., 2015). Thus, in context of alcohol use, individuals that has strong religiosity may follow their faith by not consume alcohol excessively or even emphasize abstinence for certain religion. Furthermore, religious principles tend to generate a heightened feeling of conformity within religious communities, where shared ideas and practises often contribute to a cohesive social fabric (Desmond et al., 2011). Thus, it fosters a strong sense of identity, belonging, and purpose as individuals align their values and behaviors with the doctrines and practices of their faith. Those logical explanations of how religiosity affect alcohol use are, indeed, in line with the two factors of TPB, attitude toward the behavior and subjective norm. Thus, may have potency to predict how religiosity affect intention to buy alcohol.

### ***Extrinsic and Intrinsic Religiosity Theory***

A person with strong religiosity tends to conduct their daily lives in accordance with their religious beliefs. However, Allport and Ross (1967) argue that religious person does not always include both a belief and commitment to be affiliated with a ritual and religious institution. Thus, Allport and Ross (1967) categorize religiosity into two category, namely intrinsic and extrinsic religiosity. Individuals that have strong intrinsic religiosity may have dedication to their religion though they do not expect or prioritize something as a return (Arlı et al., 2016). In contrast, individuals with high extrinsic religiosity are affected by social variables and likely to engage in religious activities to address personal needs (e.g., source of comfort and tranquillity) or social objectives (e.g., social support) (Arlı et al., 2016; Baker & Gorsuch, 1982; Socha, 1999).

Some studies view extrinsic religiosity is not a religiosity. Donahue (1985) argue that extrinsic religiosity measures a person's attitude toward religion as a source of comfort and social support rather than measuring actual religiosity. Palmer and Gallagher (2007) further posits that visiting to a religious or holy place and experiencing the social aspect of religiosity are similar to the relationship consumers have with business services.

### ***Islamic religiosity and alcohol consumption***

Islam religion regulates the consumption of food that could be consumed (*Halal*) and not permissible to consume (*Haram*) (Ahmad et al., 2015; Rafiki et al., 2023). There are no excuses of Islamic follower to consume prohibit food, except in emergency situation. This prohibition is carried out in all Islamic schools or denomination (*mahzab*). The following are some Qur'anic passages that convey the fundamental understanding of the halal concept: Al-Maidah 5:3-4; Al-Maidah 5:88; Al-Baqarah 2:168; Al-Baqarah 2:173; Al-Baqarah 2:219; Al-An'am 6:121; An-Nah 16:67. This kind of phenomenon is somewhat different with other religion as some religion that prohibit alcohol still accept to consume alcohol as long as it does not reach drunkenness. Thus, the consistency of Islamic rules on alcohol could reduce the measurement error of

respondent in viewing alcohol.

### **Rationale of the study**

The prevalence of underage drinking and illicit alcohol consumption in Indonesia is concerning. The average consumption of alcohol among Indonesians is increased gradually as Indonesian consume 0.6 liters of alcohol per capita in 2010 (World Health Organisation [WHO], 2014) and increased to 0.7 liters in 2016 (WHO, 2018). This condition, indeed, still lower than the average of South-East Asia Region which consume 4.5 liters average consumption of alcohol per capita in 2018. However, the main problem is the widespread consumption of illegal alcohol often consumed by young generation (Respatiadi & Tandra, 2018). This illegal alcohol mostly contains ingredients that are not suitable for consumption, such as methanol (Arlinta, 2023), mosquito repellent (Artantiani, 2016), and flu-medicine (Anjungroso, 2017).

Religiosity has ability to affect human behavior which one of them is alcohol intention. The mechanism of how religiosity affect alcohol intention can be explained by Theory of Planned behaviors' factors, namely attitude, subjective norm, and perceived behavioral control. Religiosity has the potential to influence individuals' attitudes which in this issue, religiosity may affect the value of individuals on alcohol products. For instance, individuals who identify as Muslim and exhibit a high level of religiosity which prioritizes the significance of adhering to Halal principles over other potential attributes associated with the available products (Jumani & Sukhabot, 2021). Individuals that have high religiosity tend to join religious community and institution as it strengthens their religious commitment (Allport & Ross, 1967; Arli et al., 2016). In other words, they have friends that have same values and may tend to keep the distance between people that different values. religiosity also may affect internal perceived behavioral control as people that has high intrinsic religiosity perceive that God supervise all their activity. Thus, it creates more difficulties to execute behavior (Ajzen, 1991).

However, religiosity itself is divided by two groups, namely intrinsic and extrinsic religiosity (Allport & Ross, 1967). The difference between two group is separated by motive. Individuals who possess a high level of intrinsic religiosity are inclined to comply with religious directives, as this is a manifestation of their devotion to God. However, individuals who has with a high extrinsic religiosity tend to comply with religious laws as violate these laws may reduce their personal and social benefit (Arli et al., 2016). Take for example, individuals who exhibit a high level of intrinsic religiosity join religious community or religious institution to fortify their commitment, while Individuals that have high extrinsic religiosity tend to join religious community and institution to gain social recognition. The difference between these two religiosities may have different impact on alcohol intention as intrinsic religiosity refers to a type of religiosity that is not motivated by any expected rewards, whereas extrinsic religiosity refers to a type of religiosity that is motivated by the anticipation of receiving some form of benefit.

### **Hypotheses of the Study**

Based on theoretical and previous research, several hypotheses could be formulated. Here are the following hypotheses:

- H1: Intrinsic religiosity has negative effect on intention to consume alcohol beverages
- H2: Intrinsic religiosity has negative effect on alcohol-supported attitude
- H3: Intrinsic religiosity has negative effect on alcohol-supported subjective norm
- H4: Intrinsic religiosity has negative effect on internal perceived behavioral control
- H5: Extrinsic religiosity has negative effect on intention to consume alcohol beverages
- H6: Extrinsic religiosity has negative effect on alcohol-supported attitude
- H7: Extrinsic religiosity has negative effect on alcohol-supported subjective norm

- H8: Extrinsic religiosity has negative effect on internal perceived behavioral control
- H9: Alcohol-supported Attitude has positive effect on intention to consume alcohol beverages
- H10: Alcohol-supported subjective norm has positive effect on intention to consume alcohol beverages
- H11: Internal perceived behavioral control has positive effect on intention to consume alcohol beverages
- H12: External perceived behavioral control has positive effect on intention to consume alcohol beverages
- H13: Alcohol-supported attitude mediates intrinsic religiosity in affecting intention to consume alcohol beverages
- H14: Alcohol-supported subjective norm mediates intrinsic religiosity in affecting intention to consume alcohol beverages
- H15: Internal perceived behavioral control mediates intrinsic religiosity in affecting intention to consume alcohol beverages
- H16: Alcohol-supported attitude mediates extrinsic religiosity in affecting intention to consume alcohol beverages
- H17: Alcohol-supported subjective norm mediates extrinsic religiosity in affecting intention to consume alcohol beverages
- H18: Internal perceived behavioral control mediates extrinsic religiosity in affecting intention to consume alcohol beverages

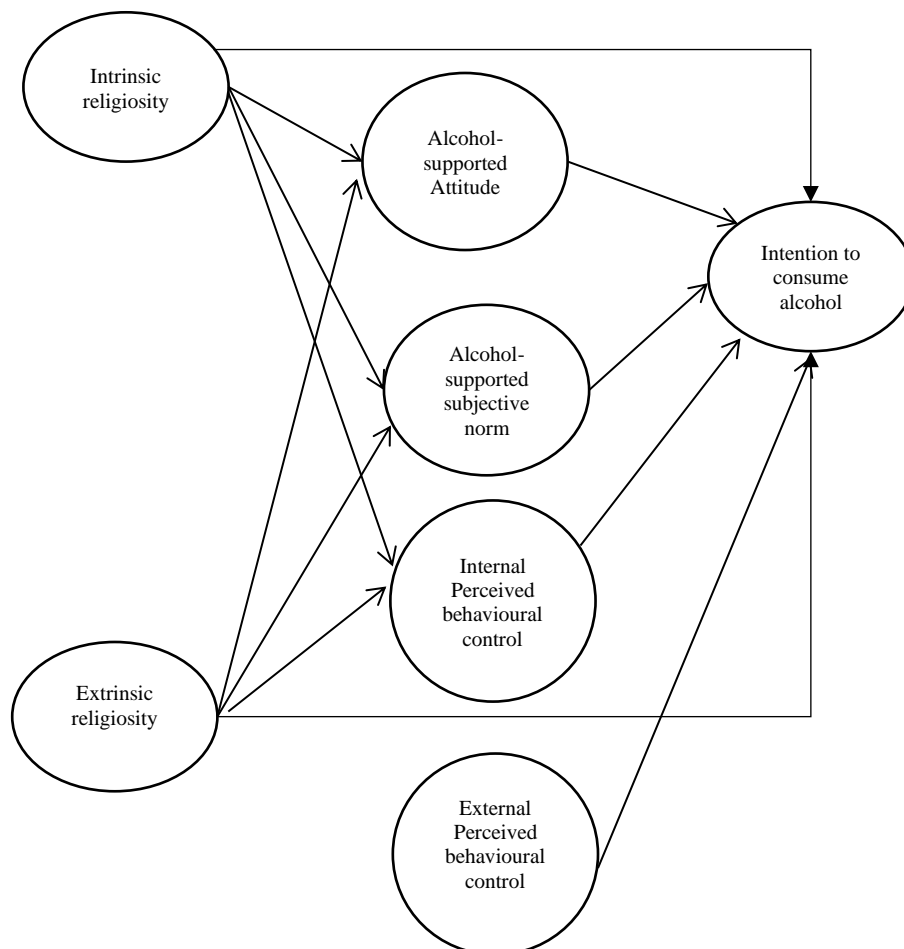


Figure 1. Conceptual framework of this study

## METHODS

### Participants and Data Collection

The purposive sampling technique was employed as only active undergraduate students in Surakarta that could fill the questionnaire. Online questionnaires are conducted to collect the sample of respondents. The sample consisted of 362 undergraduate students, of which 63.56 percent identified as female. A total of 53 students reported that have ever consumed alcoholic beverages, with 90.56 percent of them identifying as male. The average age of our respondents is 19.5, while the maximum is 26 and minimum is 17 years old. To understand the economic ability of our respondent, we also present daily allowance of the respondent. The respondent has accepted to fill the questionnaire as we keep and protect information of respondent's identity.

In this study, Structural Equation Model-Partial Least Squares (SEM-PLS) is the technique to estimate the relationship of each variable. The selection of this methodology was based on its suitability for exploratory research (Hair et al., 2022), which facilitates the development and evaluation of novel models within a study. To apply this method, SMART PLS 3.0 software is employed.

Table 1. Profile of Respondents

Variables	n
<i>Sex</i>	
Male	131
Female	231
<i>Have ever consumed Alcohol</i>	
Yes	53
No	309

### Instrumentation

Intrinsic religiosity (IR) was adopted from Genia (1993). This instrument has been used in measuring religiosity in various religion, including Muslim (Arlı et al., 2016). These measurements employed 5 Likert scale, ranged 1 (totally disagree) to 5 (totally agree) with total of nine items. Unfortunately, only six items of IR can be included in this study as their factor loading are above 0.7 (Hair et al., 2022). Three items of IR that should be excluded are "If not prevented by unavoidable circumstances, I attend my house of worship", "If there is religious group, such as Al Quran study and zakat and sedekah organization (social fellowship), I would prefer to join.", and "I read literature about my faith."

Table 2. Descriptive statistics

Criteria	n	M	SD	Min	Max
Age	362	19.50	1.383	17	26
Daily allowance (in Rupiah)	362	35058.65	31371.63	10000	300000
Intrinsic Religiosity (IR)	362	4.491	0.701	1.000	5.000
Extrinsic Religiosity (ER)	362	4.222	0.718	1.000	5.000
Alcohol-supported attitude (ATT)	362	1.186	0.531	1.000	5.000
Alcohol-supported subjective norm (SN)	362	1.220	0.623	1.000	5.000
Internal Perceived Behavioral Control (EPBC)	362	2.015	1.174	1.000	5.000
External Perceived Behavioral Control (EPBC)	362	1.629	1.059	1.000	5.000
Intention to Consume Alcohol (AL)	362	1.195	0.628	1.000	5.000

Extrinsic religiosity (IR) was also adopted from Genia (1993). This instrument also has been used in measuring religiosity in various religion, including Muslim (Arlı et al., 2016). Five Likert scale ranged 1 (totally disagree) to 5 (totally agree), to measure this variable. For extrinsic religiosity, we included items that have factor loading score above 0.6 since increasing

the threshold into 0.7 could reduce one element of extrinsic religiosity, namely social objectives (e.g., social support) (Arlı et al., 2016; Baker & Gorsuch, 1982; Socha, 1999). This strategy is acceptable as the deletion reduce content validity (Hair et al., 2022). As we employed threshold score of factor loading of 0.6, five items of ER should be excluded, such as “It doesn't matter so much what I believe so long as I lead a moral life”, “Although I am a religious person, I refuse to let religious considerations influence my everyday affairs”, “Although I believe in my religion, I feel there are many more important things in life”, “I pray chiefly because I have been taught to pray”, and “Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being”. This exclusion is employed as the score of factor loading is below 0.6.

Alcohol-supported attitude (ATT) derived from Theory of Planned Behavior. This variable is an individual's comprehensive assessment of the behavior, encompassing their perception of whether it is advantageous or disadvantageous. In other words, the higher the value of this variable, the higher of respondent view drinking alcohol as positive activity. The measurement of this variable is conducted using a 5-point Likert scale. The items of this variable are derived and modified from two sources, Zhao et al. (2020) and one item from Berakon et al. (2022). All of the items exhibit factor loading higher than 0.6. Thus, this implies that all items have the potential to be employed in this study.

Table 3. Result of Validity Test

	<i>Items</i>	<i>Loading</i>
	Intrinsic Religiosity	
IR1	I try hard to carry my religion over into all my other dealings in life	0.869
IR2	Quite often I have been keenly aware of the presence of God or the Divine Being	0.856
IR3	My religious beliefs are what really lie behind my whole approach to life	0.854
IR4	The prayers I say when I am alone carrying as much meaning and personal emotions as those said by me during services	0.779
IR5	Religion is especially important to me because it answers many questions about the meaning of life	0.887
IR6	It is important to me to spend periods of time in private religious thought and meditation	0.707
	Extrinsic Religiosity	
ER1	What religion offers me most is comfort when sorrows and misfortune strike	0.762
ER2	One reason for my being a congregation member is that such membership helps to establish a person in the community	0.649
ER3	The purpose of prayer is to secure a happy and peaceful life	0.889
ER4	My house of worship is most important as a place to formulate good social relations.	0.655
ER5	The primary purpose of prayer is to gain relief and protection.	0.820
	Alcohol-supported attitude	
ATT1	I think drinking alcohol is a good idea	0.864
ATT2	It is not wrong to drink alcohol	0.799
ATT3	Drinking alcohol makes me looks cool	0.835
	Alcohol-supported subjective norm	
SN1	The people closest to me encouraged me to drink alcohol	0.827
SN2	My friend encouraged me to drink alcohol	0.903
	Internal Perceived Behavioral Control	
IPBC1	If I wanted to, I could easily drink alcohol	0.915
IPBC2	It is up to me whether or not I drink alcohol	0.730
	External Perceived Behavioral Control	
EPBC1	I know the location of places that sell alcoholic drinks	0.828
EPBC2	I have money to buy alcohol drinks	0.896
EPBC3	I have resources to buy alcohol drinks	0.920
	Intention to Consume Alcohol	
AL1	I have intention to drink alcohol	0.931
AL2	I have an interest to drink alcohol	0.926
AL3	I plan to drink alcoholic beverages at least once a month	0.793

Alcohol-supported subjective norm (SN) consists of individual's perception of the expectations of significant others in their lives in the context of alcohol drinking activity. This variable is derived from Theory of Planned Behavior. Five Likert scale ranged 1 (totally disagree) to 5 (totally agree), to measure this variable. The higher the value of the items, the higher respondent perceive his or her social circle support on alcohol drinking activity. The items of this variable are adopted and modify from Berakon et al. (2022). Indeed, those two items are not originated from article that analyse alcohol intention. However, by modifying the object of the study on the items, the measurement could reflect the respondent's perception of peers toward alcohol drinking. All of the items are higher than 0.7, reflect the ability to those items to represent Alcohol-supported subjective norm variable.

In this study Perceived behavioural control is divided into two, internal and external. For internal perceived behavioural control, we adopt the item from Zhao et al. (2020). However, from three items, we should exclude "Whether or not I drink alcohol is under my control" as the factor loading lower than 0.7 (the value of factor loading is 0.577). For external perceived behavioural control, we adopt and modified from Berakon et al. (2022).

For Intention to consume alcohol, we adopt two items from Zhao et al. (2020). We add one item "I plan to drink alcoholic beverages at least once a month" as this item has time-framed planning characteristic. This kind of item is included in some previous studies, such as Huchting et al. (2008) and Tomkins et al. (2023). All of the items have factor loading above than 0.7.

### Inner and outer model

Two methodologies are utilised to analyse the measurement model in the Smart-PLS software, the outer model and the inner model. Convergent validity and discriminant validity are employed to evaluate the outer model. For testing convergent validity, factor loadings for each item of factor are above 0.6, as mentioned in table 3. In order to assess the discriminant validity, three different types of tests were employed: average variance extracted (AVE), Cronbach's alpha, and composite reliability (CR). For AVE and Cronbach's alpha, the threshold was set at 0.5, while CR must be greater than 0.7. In this study, the result satisfies the standard.

Table 4. Result of Outer Model Test

	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Intrinsic Religiosity (IR)	0.907	0.914	0.685
Extrinsic Religiosity (ER)	0.821	0.871	0.579
alcohol-supported attitude (ATT)	0.779	0.872	0.694
alcohol-supported subjective norm (SN)	0.672	0.857	0.750
Internal Perceived Behavioral Control (IPBC)	0.564	0.811	0.685
External Perceived Behavioral Control (EPBC)	0.856	0.913	0.778
Intention to Consume Alcohol (AL)	0.861	0.915	0.784

To evaluate the inner model,  $R^2$  test is employed. The  $R^2$  describes the strength of effect of independent variables over the dependent variable. The higher the  $R^2$ , the stronger independent variables explain dependent variable. In this study there are four regression model. In the first model, Alcohol Consumption Intention is explained by Intrinsic Religiosity, Extrinsic Religiosity, Attitude, Subjective Norm, Internal Perceived Behavioral Control, and External Perceived Behavioral Control. In the second model, Alcohol-Supported Attitude is explained by Intrinsic and Extrinsic Religiosity. In the third model, Subjective norm become



dependent variable, while Intrinsic and Extrinsic Religiosity as independent variables. In the fourth model, Internal Perceived Behavioral Control become dependent variable, while Intrinsic and Extrinsic Religiosity as independent variables. The first model has the highest value of R<sup>2</sup>. However, this condition is natural as the first model has more independent variable.

Table 5. Result of Inner Model Test

	R Square	R Square Adjusted
First Model	0.554	0.547
Second Model	0.190	0.186
Third Model	0.158	0.154
Fourth Model	0.071	0.066

## RESULT AND DISCUSSION

### Hypothesis Testing: Direct and Indirect testing

In order to examine the statistical significance, the path coefficients of the structural model and bootstrap analysis were performed. Path analysis examined directly the paths connecting variables in a model. Bootstrapping generates a larger number of subsamples by replacing the original sample (Efron, 1979). In this study, there are six hypotheses which had supported. Intrinsic religiosity (IR) has negative effect on intention to consume alcohol beverages (AL), Intrinsic religiosity (IR) has negative effect on Alcohol-supported attitude (AAT), Intrinsic religiosity (IR) has negative effect on Alcohol-supported subjective norm (SN), Intrinsic religiosity (IR) has negative effect on Internal Perceived Behavioral Control (IPBC), and Alcohol-supported attitude has positive significant effect on intention to consume alcohol beverages (AL).

Table 6. Direct effect result

	Coefficient	Standard Deviation	t-statistic	Conclusion
Intrinsic religiosity (IR) -> Intention to Consume Alcohol (AL)	-0.168*	0.087	1.945	Supported
Intrinsic religiosity (IR) -> Alcohol-supported attitude (ATT)	-0.444***	0.108	4.099	Supported
Intrinsic religiosity (IR) -> Alcohol-supported subjective norm (SN)	-0.436***	0.104	4.205	Supported
Intrinsic religiosity (IR) -> Internal Perceived Behavioral Control (IPBC)	-0.271**	0.110	2.464	Supported
Extrinsic religiosity (ER) -> Intention to Consume Alcohol (AL)	-0.076	0.068	1.107	Not supported
Extrinsic religiosity (ER) -> Alcohol-supported attitude (ATT)	0.009	0.110	0.084	Not supported
Extrinsic religiosity (ER) -> Alcohol-supported subjective norm (SN)	0.049	0.114	0.430	Not supported
Extrinsic religiosity (ER) -> Internal Perceived Behavioral Control (IPBC)	0.006	0.109	0.054	Not supported
Alcohol-supported attitude (ATT)-> Intention to Consume Alcohol (AL)	0.372***	0.121	3.082	Supported
Alcohol-supported subjective norm (SN) -> Intention to Consume Alcohol (AL)	0.102	0.084	1.209	Not supported
Internal Perceived Behavioral Control (IPBC) -> Intention to Consume Alcohol (AL)	-0.004	0.060	0.064	Not supported
External Perceived Behavioral Control (EPBC) -> Intention to Consume Alcohol (AL)	0.249***	0.063	3.864	Supported

Notes: \*\*\*Significance level at p-values < 0.01; \*\*significance level at p-values p<0.05; \*significance level at p-values p<0.1

Furthermore, our study also shows that partial mediation exists. It indicates by the significance of the coefficient of indirect test of alcohol-supported attitude mediates intrinsic religiosity in affecting intention to consume alcohol beverages (p-values < 0.05), while the direct test of coefficient of intrinsic religiosity on intention to consume alcohol beverages is also significant (p-value < 0.10). This partial mediation implies that the effect of intrinsic religiosity on intention to consume alcohol beverages can be both explained by the alcohol-supported attitude or by direct relationship between intrinsic religiosity and intention to consume alcohol beverages.

Table 7. Mediation test result

	Coefficient	Standard Deviation	t-statistic	Conclusion
Intrinsic religiosity (IR) -> Alcohol-supported attitude (ATT)-> Intention to Consume Alcohol (AL)	-0.165**	0.073	2.263	Supported
Intrinsic religiosity (IR) -> Alcohol-supported subjective norm (SN) -> Intention to Consume Alcohol (AL)	-0.044	0.040	1.110	Not supported
Intrinsic religiosity (IR) -> Internal Perceived Behavioral Control (IPBC) -> Intention to Consume Alcohol (AL)	0.001	0.018	0.058	Not supported
Extrinsic religiosity (ER) -> Alcohol-supported attitude (ATT)-> Intention to Consume Alcohol (AL)	0.003	0.041	0.083	Not supported
Extrinsic religiosity (ER) -> Alcohol-supported subjective norm (SN)-> Intention to Consume Alcohol (AL)	0.005	0.016	0.319	Not supported
Extrinsic religiosity (ER) -> Internal Perceived Behavioral Control (IPBC)-> Intention to Consume Alcohol (AL)	0.000	0.006	0.004	Not supported

Notes: \*\*\*Significance level at p-values < 0.01; \*\*significance level at p-values p<0.05; \*significance level at p-values p<0.1

## Discussion

This study attempts to explain of how religiosity affect alcohol consumption intention using TPB paradigm. In other word, the three factors of TPB, such as attitude, subjective norm, and perceived behavioral control is included in this study, we investigate whether those factors could be mediator between religiosity and alcohol consumption intention.

For the direct effect, our study shows that intrinsic religiosity has more relevant to reduce intention to consume alcohol than extrinsic religiosity. Intrinsic religiosity has negative effect on intention to consume alcohol, while extrinsic religiosity has no significant effect on intention to consume alcohol. This result is in line with Arli et al. (2016) and Patock-Peckham et al. (1998). TPB factors help us to explain this result as intrinsic religiosity also has negative significant effect on all TPB factors, such as alcohol-supported attitude, alcohol-supported subjective norm, and internal perceived behavioral control. In contrast extrinsic religiosity has no significant effect on any TPB factors. This finding in line with Donahue (1985) critics on extrinsic religiosity which argue that rather than measuring religiosity, extrinsic religiosity is a perception of individuals toward religion as a source of comfort and social benefit.

The negative significant effect of intrinsic religiosity on alcohol-supported attitude show that intrinsic religiosity shapes the attitude on alcohol consumption. As islamic religious value prohibits and view alcohol consumption as a negative act, individuals with high intrinsic religiosity comply this value. Commitment and dedication to religion reflected by intrinsic religiosity could maintain the discipline of individuals to comply religious value and law, though they do not get any return (Arli et al., 2016). The negative significant effect of intrinsic religiosity on alcohol-supported subjective norm reflects that intrinsic religiosity affect the

individuals' entourage. They tend to be befriended by people that has similar value as it strengthens their faith (Allport & Ross, 1967). Thus, they have no social pressure to consume alcohol. The negative significant effect of intrinsic religiosity on internal perceived behavior control reflects that individual that have high intrinsic religiosity perceive that God supervise in his or her decision. Thus, it creates dilemma and difficulties to consume alcohol (Ajzen, 1991). Furthermore, violating religious value may be expressed as an act that make God displeased.

Alcohol-supported attitude has positive significant effect on alcohol drinking intention. This finding is consistent with numerous previous studies (Huchting et al., 2008; Kim & Hong, 2013; Norman, 2011; Norman et al., 2012; Zhao et al., 2020). This finding reveals that those who regard alcohol consumption as having no benefits tend not to have the intention to drink alcohol. Subjective norm has no significant effect with intentions to drink alcohol. Indeed, this finding is different compared with previous studies (Huchting et al., 2008; Kim & Hong, 2013; Zhao et al., 2020). This difference may exist as those studies are conducted in non-Muslim majority country, which alcohol consumption is more acceptable. Insignificant result of internal perceived behavioural control in explaining intentions to drink alcohol is not surprising as intention to conduct a particular behaviour tends to be planned (Huchting et al., 2008). In contrast, external perceived behavioural control has significant effect on alcohol drinking intention. External perceived behavioural control reflects level of information and access to buy alcohol beverage. As intention to engage is deliberate choice, having information to buy alcohol and access to obtain are the element of conducting planned activities, increased the intention to drink alcohol beverages. This result may argue previous studies that conclude perceived behavioral control has no significant effect on intention (Kim & Hong, 2013; Zhao et al., 2020). To explain the difference result, those studies do not separate perceived behavioral control into external and internal and their measurement of perceived behavioral control tend to reflect only internal. This condition may explain why they fail in finding the relevancy of perceived behavioral control in explaining alcohol consumption intention.

Mediation, which is partially, only exists between the relationship of intrinsic religiosity, attitude and intention of alcohol drinking. It implies that intrinsic religiosity is able to affect intention of alcohol drinking through attitude and intrinsic religiosity itself are able to affect intention of alcohol drinking directly. In other words, intrinsic religiosity affects alcohol drinking intention through two different processes. First, intrinsic religiosity affects the perception of individuals toward alcohol consumption which it shapes the individual perception to view alcohol consumption as a bad behavior. Then, having negative attitude on the alcohol consumption, they tend to have no intention to consume alcohol. Second, individuals that has intrinsic religious has no intention to consume alcohol simply because their religious value prohibit them to consume though alcohol consumption is still regarded positively by them.

### Implications

Our study has successfully provided evidence that religiosity, specifically intrinsic religiosity has role in reducing alcohol intention while extrinsic religiosity has no effect on alcohol intention. This result support Allport and Ross (1967) and Arli et al. (2016) that religiosity that has no expectation as a return is better than religiosity associated with benefit such as fulfilling personal needs (e.g., source of comfort and tranquility) or social objectives (e.g., social support).

For policy formulation, our research may demonstrate the potency of a faith-based strategy that empowers people in bringing about constructive social change. This study also lends support to the incorporation of religion as a subject in the undergraduate curriculum. However, the religion subject should extend beyond teachings of reward for specific actions; it should also emphasize the importance of worshiping and honoring God without too much

expecting reward in return.

### Suggestion for Future Research

For the future, this study could be extended to focus the effect of religiosity on alcohol intention in Muslim community in a region that Muslims constitute as minority using TPB paradigm. Indeed, some studies have included Muslim community in analyzing the effect of religiosity on alcohol intention (Charro Baena et al., 2019; Najjar et al., 2016). However, those studies have not used TPB in explaining the behavior mechanism. The variation between the effect of religiosity in different region and situation toward TPB factors related on alcohol consumption could be exist as becoming minority may become a dilemma for individuals as they have to choose between keep his faith or conform with custom.

In addition, studies that categorize religiosity into intrinsic and extrinsic and analyze the impact are limited (Arli et al., 2016). Using this category may give robust explanation, such as whether religiosity which is motivated by benefit or return (extrinsic religiosity) and religiosity that focus on worshipping God without expectation of particular return (intrinsic religiosity) may have different impact.

### CONCLUSION

This study analyses the suitability of the Theory of Planned Behavior for understanding the mechanism of religiosity, specifically Islamic religiosity, in reducing intention of alcohol drinking behaviours among undergraduate students. Primarily, attitude partially mediated the relationship of intrinsic religiosity on alcohol drinking intention. In other words, there is two mechanisms of how religiosity affect alcohol drinking intention and the role of attitude. First, intrinsic religiosity affects the presumption or attitude of individuals on related to alcohol beverages, then this view affects their intention. Second, intrinsic religiosity itself, without intermediary, has significant impact in reducing alcohol intention. This result could be interpreted as that indeed islamic religion may form the negative perception toward alcohol consumption, then reduce the intention to consume alcohol. However, some individuals that still has positive perception toward alcohol consumption attempt to avoid alcohol consumption as islamic law prohibits alcohol drinking.

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### AUTHOR CONTRIBUTION STATEMENT

AM conceptualized the idea and writing the original draft, DO construct the models and conduct the analysis, RN collect and manage the data, US edit and visualize the result.

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