

## Article

# Religious Participation: Does It Shape Food Consumption?

Yugang He <sup>1,\*</sup>  and Wanting Tian <sup>2</sup><sup>1</sup> College of Liberal Arts, Sejong University, Seoul 05006, Republic of Korea<sup>2</sup> College of Commerce, Jeonbuk National University, Jeonju 54896, Republic of Korea

\* Correspondence: 1293647581@sejong.ac.kr

**Abstract:** As an informal system, religion has a profound effect on all facets of our society. In reality, previous studies have investigated the consequences of religion on education, health, and others. Consequently, the purpose of this article is to examine the impact of religious participation on food consumption in China. Using data from the 2018 Chinese General Social Survey for an empirical study, the findings suggest that religious participation reduces food consumption. In the meantime, replacement food consumption (food2) is used for the robustness test. The findings confirm the argument that religious participation reduces food consumption. Moreover, this article investigates the geographically heterogeneous impact of religious participation on food consumption. The findings suggest the geographically heterogeneous effect's existence. Specifically, religious participation has the greatest negative impact on food consumption in the western region. In contrast, religious participation has the least negative impact on food consumption in the eastern region.

**Keywords:** religious participation; food consumption; geographically heterogeneous effect



**Citation:** He, Yugang, and Wanting Tian. 2023. Religious Participation: Does It Shape Food Consumption? *Religions* 14: 350. <https://doi.org/10.3390/rel14030350>

Academic Editor: Ryan A. Smith

Received: 6 December 2022

Revised: 4 March 2023

Accepted: 5 March 2023

Published: 6 March 2023



**Copyright:** © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 1. Introduction

Religious fervor in China has recently been on the increase, largely due to the re-identification of religion and the social context in which it is active (Madsen 2011). Religion has existed in China for two thousand years, but in recent decades, it has received positive attention and recognition from the government and has grown significantly. This positive religious fervor has driven an increase in religious activities, such as the establishment of monasteries and the development of religious organizations (Fiedler 2010). Religious belief has been extensively used for social good, such as fundraising activities for charities and the development of social welfare activities and charities (McCarthy 2013). Religious beliefs are also used to strengthen social order and good moral standards, thereby promoting social justice and social stability (Brokaw 2014). Moreover, religious beliefs are also used to strengthen social solidarity and the harmonious coexistence of religious peoples, contributing to a harmonious social environment (Wielander 2011). According to statistics compiled by China's State Administration of Religious Affairs, the number of people who identify as belonging to a religious faith in China was approximately 104 million in 2018, an increase of 33.8% from 2008 and an increase of 10.2% from 2010. It has always been common knowledge that religion has had a significant impact on several aspects of Chinese society, including politics, philosophy, culture, and conventions. However, how much of an impact does religion have on the realm of Chinese consumption, and in what ways does it manifest itself? Chinese academics have not paid sufficient attention to this issue up to this point.

The impact of religion on people's consumption behavior is multidimensional and multifaceted. This is not only connected to the precise elements of religion, such as theology, etiquette, and taboo, but also to the cultural background, living environment, religious level, religious focus, and unique understanding of the person who adheres to a certain religion. Therefore, this effect will manifest itself differently across other faiths and adherents. From the perspective of restrictive factors and the consumption structure of consumption

behavior, because life content and lifestyles that contradict or do not conform to religious doctrines or are not advocated are subject to various forms of restrictions or prohibitions among religious believers, the consumption expenditure in this regard will be subject to certain restrictions or prohibitions. Some religious doctrines and commandments do not support or even forbid the acquisition of wealth from the standpoint of consumption concepts and styles. Consequently, various religious believers might disdain savings to varying degrees, which will affect the shift in consumption mode. From the standpoint of the link between self-interest and the commonwealth of consumption, since religions often encourage the moral idea of charity and assisting the weak, certain faiths consider this conduct to be an integral element of their monastic structure. Therefore, for religious believers, social charity consumption expenditures used to aid others become a non-negotiable expense item, therefore reducing food consumption.

In this piece of writing, the topic of the impact of religious participation on food consumption has been examined due to the extensive background and opportunities indicated above. In comparison to the findings presented in this article, three substantial additions have been made to the existing body of information that has been uncovered. First, unlike [Minton et al. \(2018\)](#), who only evaluated the effect of religion on consumption, which included all forms of consumption, this article distinguishes food consumption from total consumption and investigates the effect of religious participation on food consumption. Second, in the wake of [He et al. \(2021a\)](#), who explored the impact of religious engagement on sustainable culture and entertainment consumption, they made it feasible for future researchers to investigate the effect of religious participation on food consumption. The outcomes of this study made up for their lack of contribution to the existing body of knowledge. Third, this article proves that religious participation has diverse effects on food consumption in eastern, central, and western China. This was due to the unequal religious dispersion throughout China. In terms of the quantity of food consumed in the western area, engagement in religious activities was the single most significant determinant. However, engagement in religious activities had the least influence on the overall quantity of food consumed in the eastern area.

The remainder of this article is structured as follows: Section 2 is devoted to the literature review. Section 3 focuses on the explanations of variables and the model. Section 4 provides an analysis of the findings and discussions. Section 5 shows the conclusions, policy implications, limitations, and future research directions.

## 2. Literature Review

The aim of this section is to organize and analyze the previous studies on the impact that religion has on consumption so that they may serve as a strong, trustworthy, and objective theoretical foundation for this study. There is not yet a consensus among the many bodies of extant information about the influence that religion has on consumption.

The challenge of how to express and acknowledge religious identities may be partially solved by the decisions that people make about their consumption. While using this information as a common framework for thinking, [Coşgel and Minkler \(2004\)](#) came to the conclusion that people who held religious views may pick the level of consumption that they engaged in to demonstrate the depth of their dedication to such beliefs. Consumption decisions might help convey these distinctions between people and communities since societies and individuals have different beliefs, conventions, values, and demands for expressiveness. [Suki and Suki \(2015\)](#) investigated whether non-Muslim and Muslim consumers placed differing significance on consuming green foods. Using the convenience sampling method, the data from a sample of 700 students at a public higher education institution located in the Federal Territory of Labuan, Malaysia, were examined by employing average comparison and multivariate regression assessments. They discovered that essential factors such as specialized demands, individual environmental beliefs connected to green foods, and government activities greatly predict prejudice against the consumption of green foods among non-Muslim consumers. Muslim customers adhere

to a diet that strictly conforms to Islamic dietary regulations. [Bonne et al. \(2008\)](#) used the planned behavior theory as a theoretical model to study the factors that determine whether or not a Muslim migrant community in Belgium consumes halal meat, with particular emphasis on the function of Muslim self-identification and cultural assimilation in the host nation. A survey was administered to 367 Muslims, most of whom were from North Africa and were now residing in Belgium. The data for this study were acquired using a cross-sectional method. They found that, in general, a favorable health attitude toward halal meat was a good predictor of the desire to consume halal meat among Muslims. It has been revealed that possible hurdles that impede Muslim customers from consuming halal meat include a lack of confidence in the safety standards or a perception that there are insufficient safety precautions. When deciding whether or not to consume halal meat, Muslims with low levels of acculturation place a significant amount of weight on their own favorable individual attitudes toward the health status of halal meat, while Muslims with high levels of acculturation place weight on animal welfare attitudes, health attitudes, and safety attitudes. Muslims who have a low sense of their own religious identity are more likely to be swayed by the opinions of their religious contemporaries regarding the concerns they have about their own health and the availability of halal meat. However, Muslims who have a strong sense of their own religious identity are more likely to believe that consuming halal meat is healthy. [Mullen et al. \(2000\)](#); [Casidy and Arli \(2018\)](#); and [Orellano et al. \(2020\)](#) corroborate these results.

Whereas previous studies have investigated religion, and sustainable consumption as separate variables, the relationships among these variables have not previously been investigated. [Minton et al. \(2018\)](#) explored how attitudes and behaviors connected with sustainable purchasing are influenced by religious values, using religion as an example of a consumer value system that is long-lasting and widespread. Utilizing a representative online panel, they performed a poll, which indicated that religion positively affected sustainable consumption behaviors. Moreover, [Charro Baena et al. \(2019\)](#) studied a group of 2890 teenagers in Madrid, Spain, ranging in age from 12 to 18, and looked at how religion and alcohol consumption were related to one another. In contrast to Catholics, nonbelievers were found to have much higher rates of alcohol misuse and consumption, according to their findings. In addition, they discovered a link between higher levels of religiosity and reduced alcohol consumption. Consequently, it would suggest that the religious beliefs and the level of religiosity held by Spanish teenagers are associated with their low rate of alcohol consumption. Based on 1380 samples from 26 provinces in mainland China, [Qian et al. \(2022\)](#) examined the problem of food waste in rural Chinese households from the standpoint of religious beliefs. Using the least squares method for empirical investigation, they discovered that religion contributed positively to the reduction of food waste in rural China. Meanwhile, at the state level, [Holt et al. \(2006\)](#) investigated whether or not there was an association between the consumption of alcohol and religious adherence. In spite of the fact that they did not find a statistically significant link between general religious adherence and existing or gorging drinking rates, they discovered that states that had higher adherence rates were significantly more likely to have large percentages of excessive drinking among existing drinkers. They discovered a substantial positive association between adherence rates and ongoing drinking as well as excessive drinking rates in the Midwest and the Northeast. However, they identified a large negative link between adherence rates and present drinking in the Southeast. Stratification by the main religious denominational groups primarily explains these regional discrepancies. It has been shown that states that have high rates of Catholic adherence are more likely to have high drinking rates, while states that have high rates of Evangelical Protestant devotion are more likely to have high drinking rates. In conclusion, their results indicated that the association between religion and alcohol might well be due to a religious organization and contradicted the common belief that religious devotion was related to reduced alcohol consumption and less extreme consumption among drinkers. [Sandikci \(2021\)](#); [Tumwesigye et al. \(2013\)](#); [Carlucci et al. \(1993\)](#); and [Kalema et al. \(2016\)](#) have found similar results, which lend credence to the investigation.

As a result of the ambiguity that exists between religion and consumer behavior, the preceding literature leads us to the conclusion that there is still scope for more investigation into the relationship between the two. Therefore, we distinguish food consumption from other types of consumption and then investigate the effect that religious participation has had on food consumption. It is possible that the result of this work will add to the existing body of literature on the connection between religion and consumption.

### 3. Variable Description and Model Specification

#### 3.1. Variable Description

In this article, food consumption is considered to be the dependent variable. It is defined by food consumption expenditures and the ratio of food consumption expenditures to total food consumption expenditures. In the meantime, following [He et al. \(2021b\)](#), religious participation is considered an independent variable. This variable is a dummy variable. Specifically, if an individual engages in religious activities, the value is one, and if they do not, it is zero. Several significant control variables were included in this work so that it would be consistent with the authoritative research that had been conducted before. Following [Cheng et al. \(2022\)](#); [Orkoh et al. \(2020\)](#); and [Tiwari \(2019\)](#), income is included in this article. Following [Turner et al. \(2021\)](#); [Zhong and Moon \(2020\)](#); [Ketel et al. \(2019\)](#); and [Čajić et al. \(2022\)](#), gender and age are included in this article. Following [Medeiros et al. \(2022\)](#); [Van Bussel et al. \(2020\)](#); [Fernández-Alvira et al. \(2013\)](#), education is included in this article. Following [He et al. \(2021b\)](#) and [Massarelli et al. \(2017\)](#), ethnic identity and family classification are included in this paper. All the data used in this article are sourced from the Chinese General Social Survey (it is the earliest national, comprehensive, and continuous academic survey project in China, having started in 2003). It also promotes openness and sharing of domestic scientific research, provides data for international comparative studies, and serves as a multidisciplinary platform for economic and social data collection. Currently, Chinese General Social Survey data has become the most important source of data for the study of Chinese society and is widely used in research, teaching, and government decision making. Furthermore, Table 1 provides the forms, definitions, and sources of these variables so that the reader may have a comprehensive understanding of them.

**Table 1.** Results of variable description.

Variable	Form	Definition
Food consumption 1	food1	Food consumption expenditures (unit: thousand yuan) in log
Food consumption 2	food2	Ratio of food consumption expenditures to total food consumption expenditures
Religious participation *	reli	If an individual engages in religious activities, the value is 1; otherwise, it is 0.
Income	inco	Total income (unit: thousand yuan) in log
Gender	gend	Dummy variable (male = 1; otherwise, 0)
Education	educ	Dummy variable (Bachelor degree or above = 1; otherwise, 0)
Age	age	Age in log
Ethnic identity	ethn	Dummy variable (Han = 1; minority = 0)
Family classification	fami	Dummy variable (rural = 1; non-rural = 0)

Note: data used in this article is sourced from the Chinese General Social Survey in 2018; \* In the Chinese General Social Survey in 2018, there was the question: How often do you participate in religious activities? There were nine possible answers: (1) I have never participated in religious activities; (2) I have participated in religious activities less than once a year; (3) I have participated in religious activities about once or twice a year; (4) I have participated in religious activities several times a year; (5) I have participated in religious activities about once a month; (6) I have participated in religious activities two or three times a month; (7) I have participated in religious activities almost every week; (8) I have participated in religious activities every week; (9) I have participated in religious activities several times a week ([He et al. 2021b](#)). A total of 9719 valid samples are eventually collected in this article after the observations that are missing or unavailable are deleted. Notably, 1438 respondents participated in religious activities among the 9719 valid samples, whereas 8281 respondents never participated in religious activities.

### 3.2. Model Specification

To investigate the effect of religious participation on food consumption, the model used in this paper is specified as follows:

$$\text{food1} = a_0 + a_1\text{reli} + a_2\text{inco} + a_3\text{gend} + a_4\text{educ} + a_5\text{age} + a_6\text{ethn} + a_7\text{fami} + \mu_1, \quad (1)$$

where  $a_0$  denotes the constant;  $[a_1, a_7]$  denote these coefficients required to be estimated;  $\mu_1$  denotes the white noise. In Equation (1), the most emphasis will be put on  $a_1$ . Specifically, if the estimated value of  $a_1$  is positive and statistically significant, it may be concluded that religious participation increases food consumption. On the contrary, if the estimated value of  $a_1$  is negative and statistically significant, it may be concluded that religious participation reduces food consumption. Otherwise, if the estimated value of  $a_1$  is not statistically significant, it may be concluded that religious participation has no impact on food consumption.

Moreover, we carried out a robustness test so that the outcomes of the estimate using Equation (1) would be more accurate and trustworthy. Specifically, as a new dependent variable, we characterized food consumption as the ratio of food consumption expenditures to total expenditures. The model used in this paper is specified as follows:

$$\text{food2} = b_0 + b_1\text{reli} + b_2\text{inco} + b_3\text{gend} + b_4\text{educ} + b_5\text{age} + b_6\text{ethn} + b_7\text{fami} + \mu_2, \quad (2)$$

where  $b_0$  denotes the constant;  $[b_1, b_7]$  denote these coefficients required to be estimated;  $\mu_2$  denotes the white noise. In Equation (2), the most emphasis will be put on  $b_1$ . In particular, if the values of  $a_1$  and  $b_1$  have the same sign, the minor difference in size is minimal and statistically significant, indicating that the estimated results of Equation (1) are robust and reliable; otherwise, the estimated results of Equation (1) are biased.

## 4. Results and Discussion

### 4.1. Basic Statistical Analysis

In this subsection, the fundamental features, including mean, maximum value, minimum value, and standard deviation of variables utilized in this article, are investigated. The results of fundamental features are displayed in Table 2.

**Table 2.** Results of basic statistical analysis.

Var and Sta	Food1	Food2	Reli	Inco	Gend	Educ	Age	Ethn	Fami
Mean	0.734	0.282	0.148	1.437	0.416	0.102	1.549	0.916	0.512
Max	1.479	0.364	1	4.748	1	1	1.875	1	1
Min	0.334	0.187	0	0.452	0	0	1.241	0	0
Sd	0.142	0.154	0.089	0.151	0.099	0.147	0.119	0.177	0.272

Note: Var variable; Sta statistic; Max maximum value; Min minimum value; Sd standard deviation.

According to Table 2, the mean food consumption is 0.734, with a standard deviation of 0.142. Meanwhile, the mean ratio of food consumption expenditures to total food consumption expenditures is 0.282, with a standard deviation of 0.154. This implies that China's food expenditures are gradually declining, which is consistent with China's actual situation. With the rise in China's national income and the diversity of its goods, it is probable that people are paying less attention to food and clothes and more to spiritual entertainment. Consequently, it makes sense that food expenditures are gradually decreasing. The mean of religious participation is 0.148, with a standard deviation of 0.089. This is consistent with the reality in China. One probable explanation is that Chinese religions are considerably more rigorously regulated by the government than religions in industrialized nations, which may explain why the majority of Chinese do not participate in religious activities. Subsequently, the mean income is 1.437, with a standard deviation of 0.151. The mean of gender is 0.416, with a standard deviation of 0.099. The mean of education is 0.102, with a standard deviation of 0.147. The mean age is 1.549, with a standard deviation of 0.119. The



mean of ethnic identity is 0.916, with a standard deviation of 0.177. The mean of family classification is 0.512, with a standard deviation of 0.272. Due to the fact that these variables are control variables, we will not engage in an in-depth study of them in this article.

#### 4.2. Regression Analysis

The goal of this subsection is to examine the impact of religious participation on food consumption. The outcomes are shown in Table 3.

**Table 3.** Results of the effect of religious participation on food consumption.

Variable and Model	Model (1): Food1	Model (2): Food1
reli	−0.114 *** (−6.916)	−0.094 *** (−6.510)
inco		0.623 *** (3.977)
gend		0.047 (1.376)
educ		0.058 * (1.714)
age		−0.021 ** (−2.018)
ethn		0.118 * (1.831)
fami		0.227 *** (4.995)
c	3.695 *** (2.979)	2.867 *** (2.618)
R <sup>2</sup>	0.179	0.136
F-statistic	67.958 ***	62.475 ***
Observation	9719	9719

Note: \* 10% significant level; \*\* 5% significant level; \*\*\* 1% significant level; () value of t-statistic.

The findings of models (1) and (2) on the influence of religious participation in food consumption are shown in Table 3. The outcome of model (1) without control variables suggests that religious participation reduces human consumption. Specifically, this shows that a 1% rise in religious participation reduces food consumption by 0.114%. Similarly, the findings of model (2) with control variables reveal that religious participation also reduces food consumption. Namely, this suggests that a 1% rise in religious participation reduces food consumption by 0.094%. Examining the coefficients of religious participation in models (1) and (2) reveals that although the coefficient of religious participation in model (2) is considerably smaller than that in model (1), both are statistically significant at the 1% level. Consequently, we could argue that religious participation reduces food consumption. A potential reason is that religious participation might be considered an informal regulation. It promotes self-discipline and frugality in everyday life. As a result of a person's religious participation, there is a decline in food consumption. Another potential reason is the substitution effect between religious products and food products. When a person accumulates more religious human capital than he or she consumes, the consumption of religious objects is of greater worth. As a consequence, a person's consumption of religious products will increase. Due to economic resource constraints, a person's disposable income will decrease if they increase their consumption of religious products, such as buying religious objects and contributing money to religious communities. In this instance, the consumption of food may result in a crowding-out effect. This new finding is, of course, in line with the findings of earlier research (Mullen et al. 2000; Casidy and Arli 2018; Orellano et al. 2020).

Furthermore, we investigate the influence of control factors on food consumption. These results are shown in Table 3. Income positively affects food consumption. A possible explanation is that a person with more income has a higher possibility of food expenditure. This finding is consistent with Fisher et al. (2020) and Nelson et al. (2019). Gender reduces

food consumption. It is nonetheless not statistically significant. Education increases food consumption. A potential reason is that those with a strong educational background are more likely to consume food. This finding is in line with the findings of [Al-Nuaimi and Al-Ghamdi \(2022\)](#); [Toti et al. \(2019\)](#); and [Kebede et al. \(2022\)](#). Age negatively impacts food intake. A probable explanation is that the elderly consume less food than young people. This result is consistent with [Li et al. \(2020\)](#); and [Tamang et al. \(2020\)](#). Ethnic identity increases food consumption. A plausible reason is that the minority consumes less food than the Han. This finding agrees with [Ramírez et al. \(2018\)](#) and [Reddy and van Dam \(2020\)](#). Family classification influences food intake favorably. A probable explanation is that the rural populace consumes more food, whereas the urban populace has more consumption alternatives. This finding agrees with those of [Lei et al. \(2021\)](#); [Mottaleb et al. \(2018\)](#); [Balan et al. \(2022\)](#); and [Yan et al. \(2022\)](#).

#### 4.3. Robustness Test

As a sort of decision made by consumers, food consumption may be endogenous to certain socioeconomic circumstances. Concurrently, a number of unobservable variables influence people's willingness to participate in religious activities, and these factors may also influence food consumption. Accordingly, the endogenous problem can contradict our results. We redefine food consumption as the ratio of food consumption expenditure to total expenditure and generate a new proxy variable for food consumption (food2). The influence of religious activity on food intake is reexamined using the new proxy variable. The findings are shown in Table 4.

**Table 4.** Results of robustness test.

Variable and Model	Model (3): Food2	Model (4): Food2
reli	−0.085 *** (−5.392)	−0.063 *** (−5.873)
cv		yes
c	3.179 *** (2.748)	3.926 *** (2.914)
R <sup>2</sup>	0.152	0.126
F-statistic	72.133 ***	60.851 ***
Observation	9719	9719

Note: \*\*\* 1% significant level; () value of t-statistic.

According to Table 4, religious participation reduces food consumption, and its coefficient is statistically significant at the 1% level. Comparing the findings from Tables 3 and 4, it is apparent that the coefficients of religious participation change in size and are statistically significant. This demonstrates that Table 3's findings are reliable and robust.

#### 4.4. Heterogeneous Effect

Due to China's vast terrain, religious sites and devotees are distributed across the country's provinces and cities. To have a better comprehension of the influence of religious participation in various geographical places on food consumption, the whole sample is split into three sub-samples, which are the eastern area, the central area, and the western area. The outcomes are shown in Table 5.

**Table 5.** Results of heterogeneous effect.

Variable and Model	Model (5): Eastern	Model (6): Central	Model (7): Western
reli	−0.059 *** (−6.382)	−0.087 *** (−6.191)	−0.108 *** (−5.178)
cv	yes	yes	yes
c	3.871 *** (3.232)	2.583 *** (2.895)	3.652 *** (2.627)
R <sup>2</sup>	0.124	0.117	0.104
F-statistic	59.702 ***	47.280 ***	42.009 ***
Observation	4025	3169	2525

Note: \*\*\* 1% significant level; () value of t-statistic.

The findings of this study are shown in Table 5, which breaks down the effects of religious participation on food consumption according to geographic region. Religious participation has been shown to reduce food consumption. In contrast, the coefficients of religious participation are statistically significant in these three areas. These findings correspond to those shown in Table 3. The influence of religious participation on food consumption is the highest in the western area and the lowest in the eastern area, which is an unexpected conclusion. Specifically, a 1% increase in religious participation causes a reduction in food consumption of 0.059% in the eastern area, 0.087% in the central area, and 0.108% in the western area. Ethnic minorities making up a significant portion of the region's population might be a possible reason for this phenomenon in the western region. It is a multi-cultural region that is home to a variety of religions that live peacefully alongside one another, a sizable number of people who are devout followers of these religions, and a robust ethnic and religious milieu. Moreover, the ideology of thrift that is taught in religious communities serves as a type of unofficial social control that prevents people from overspending and squandering their food. This is an additional significant factor. Finally, the eastern area is far further down the path to development compared to the central and western regions, and as a result, there is a greater variety of options available for consumption. As a result, the consumption of food is being pushed to the background in the eastern area because of the prevalence of other types of consumption. For this reason, it is not surprising that participation in religious activities has little impact on the amount of food consumed.

## 5. Conclusions

The purpose of this article is to investigate the influence that religious participation has on China's food consumption. With the use of information obtained from the Chinese General Social Survey in 2018, an empirical investigation on the impact of religious participation on food consumption is being carried out. In accordance with the results, religious participation reduces food consumption. To maintain a higher level of robustness and reliability in the findings, we have been conducting robustness tests, in which the related dependent variable has been changed from food1 to food2. According to the results of the robustness tests, religious participation still reduces food consumption. The influence of religious participation on food consumption is analyzed in this study in terms of three sub-samples (the eastern, central, and western areas), which allows for a more nuanced analysis of the relationship between the two. When the empirical studies are re-undertaken, the results show that the heterogeneous impact does, in fact, take place.

The conclusions of this article have several implications for the sectors that are relevant to society as a whole. First, if there is an excessive amount of food waste in society, the government may implement regulations to encourage citizens to engage in religious activities in order to cut down on the excessive amount of food waste. Second, for consumers, individuals who participate in religious activities may be helpful in forming the practice of frugality and avoiding excessive expenditures on food consumption. Third, the conclusions that may be drawn from this study can be applied to countries other than China. As shown



in the evidence included in this article, the most prevalent form of religious devotees in China are those who follow the Buddhist faith. The conclusions of this article might also be applied to other countries with religious systems that are comparable to those of China. These countries include, among others, India, Japan, Myanmar, Vietnam, Thailand, and Korea. There are a number of reasons why people behave the way they do, but one theory is that it might be due to the fact that religion is an informal institution. Additionally, the findings of this article are supported by the findings of [Loy and Watts \(1998\)](#) (a case of Japan), [Filippini and Srinivasan \(2019\)](#) (a case of India), [Park et al. \(1998\)](#) (a case of Korea), [Assanangkornchai et al. \(2002\)](#) (a case of Thailand), and [Ngo et al. \(2021\)](#) (a case of Vietnam).

In a nutshell, this study provides three significant contributions to the body of current knowledge. The first significant contribution made by this study was that, in comparison to [Minton et al. \(2018\)](#), who only examined the impact of religion on consumption, which captured all different types of consumption, this paper distinguished food consumption from total consumption and explored the impact of religious participation on food consumption. As for the second key contribution, following [He et al. \(2021a\)](#), who examined the influence of religious participation on sustainable culture and entertainment consumption, [He et al. \(2021a\)](#) made it possible for future researchers to examine the effect of religious participation on food consumption. This paper's results compensated for their lack of addition to the existing body of knowledge. The third key contribution was that empirical studies revealed that religious participation had a heterogeneous influence on food consumption in the eastern, central, and western areas of China. Participation in religious activities was the factor that had the smallest impact on the total amount of food consumed in the eastern region.

In conclusion, several limitations and goals for ongoing or future research are highlighted. Concerning the role that religious participation has in one's food consumption, all religious participation is taken into consideration simultaneously. China's religions consist of two categories. As a representative, Taoist beliefs are indigenous to China, and Buddhist beliefs and Christian beliefs are religious beliefs imported from other countries. It is probable that the consequences of religious participation on food consumption are different depending on where in the world a person practices their religion. This offers up a new avenue of study for future academics to pursue in order to address this knowledge gap. When the topic of consumption arises, food consumption is the only one brought up. The results may vary depending on whether we look at overall consumption or specific forms of consumption, such as the consumption of gifts and alcoholic beverages. When these new indicators are used to quantify consumption, it is possible that fresh discoveries might be made about the influence that religious participation has on consumption. This paves the way for future academics to address this knowledge gap with another fresh study focus. Consumption of food also has a "peer effect," which refers to a phenomenon in the realm of consumption in which an individual's consumption behavior is influenced not only by the motivation of their own economic interests but also by the behaviors of those around them who have the same status as they do. In the future, academics may choose to concentrate their attention on this topic in order to explore the peer influence of religious participation on consumption.

**Author Contributions:** Conceptualization, Y.H.; Methodology, Y.H.; Software, W.T.; Validation, W.T.; Formal analysis, W.T.; Investigation, W.T.; Data curation, W.T.; Writing—original draft, Y.H. and W.T.; Writing—review & editing, Y.H.; Visualization, W.T.; Supervision, Y.H. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** The data presented in this study are available from the author upon request.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

- Al-Nuaimi, Shaikha R., and Sami G. Al-Ghamdi. 2022. Sustainable Consumption and Education for Sustainability in Higher Education. *Sustainability* 14: 7255. [\[CrossRef\]](#)
- Assanangkornchai, Sawitri, Katherine M. Conigrave, and John B. Saunders. 2002. Religious Beliefs and Practice, and Alcohol Use in Thai Men. *Alcohol and Alcoholism* 37: 193–97. [\[CrossRef\]](#) [\[PubMed\]](#)
- Balan, Ioana Mihaela, Emanuela Diana Gherman, Ioan Brad, Remus Gherman, Adina Horablagă, and Teodor Ioan Trasca. 2022. Metabolic Food Waste as Food Insecurity Factor—Causes and Preventions. *Foods* 11: 2179. [\[CrossRef\]](#) [\[PubMed\]](#)
- Bonne, Karijn, Iris Vermeir, and Wim Verbeke. 2008. Impact of Religion on Halal Meat Consumption Decision Making in Belgium. *Journal of International Food and Agribusiness Marketing* 21: 5–26. [\[CrossRef\]](#)
- Brokaw, Cynthia Joanne. 2014. *The Ledgers of Merit and Demerit: Social Change and Moral Order in Late Imperial China*. Princeton: Princeton University Press, vol. 1180.
- Čajić, Sandra, Meike Brückner, and Suse Brettin. 2022. A Recipe for Localization? Digital and Analogue Elements in Food Provisioning in Berlin A Critical Examination of Potentials and Challenges from a Gender Perspective. *Sustainable Production and Consumption* 29: 820–30. [\[CrossRef\]](#)
- Carlucci, Kathleen, Jay Genova, Fran Rubackin, Randi Rubackin, and Wesley A. Kayson. 1993. Effects of Sex, Religion, and Amount of Alcohol Consumption on Self-Reported Drinking-Related Problem Behaviors. *Psychological Reports* 72: 983–87. [\[CrossRef\]](#)
- Casidy, Riza, and Denni Arli. 2018. Spirituality, Religion and Consumption: Introduction to a Special Issue. *International Journal of Consumer Studies* 42: 583–85. [\[CrossRef\]](#)
- Charro Baena, Belén, Carmen Meneses, Jose M. Caperos, María Prieto, and Jorge Uroz. 2019. The Role of Religion and Religiosity in Alcohol Consumption in Adolescents in Spain. *Journal of Religion and Health* 58: 1477–87. [\[CrossRef\]](#)
- Cheng, Rongzhu, Qianqian Wang, and Longbao Wei. 2022. Income Growth, Employment Structure Transition and the Rise of Modern Markets: The Impact of Urbanization on Residents' Consumption of Dairy Products in China. *PLoS ONE* 17: e0267006. [\[CrossRef\]](#)
- Coşgel, Metin M., and Lanse Minkler. 2004. Religious Identity and Consumption. *Review of Social Economy* 62: 339–50. [\[CrossRef\]](#)
- Fernández-Alvira, Juan Miguel, Theodora Mouratidou, Karin Bammann, Antje Hebestreit, Gianvincenzo Barba, Sabina Sieri, Lucia Reisch, Gabriele Eiben, Charalampos Hadjigeorgiou, and Eva Kovacs. 2013. Parental Education and Frequency of Food Consumption in European Children: The IDEFICS Study. *Public Health Nutrition* 16: 487–98. [\[CrossRef\]](#) [\[PubMed\]](#)
- Fiedler, Katrin. 2010. China's "Christianity Fever" Revisited: Towards a Community-Oriented Reading of Christian Conversions in China. *Journal of Current Chinese Affairs* 39: 71–109. [\[CrossRef\]](#)
- Filippini, Massimo, and Suchita Srinivasan. 2019. Impact of Religious Participation, Social Interactions and Globalization on Meat Consumption: Evidence from India. *Energy Economics* 84: 104550. [\[CrossRef\]](#)
- Fisher, Jonathan D., David S. Johnson, Timothy M. Smeeding, and Jeffrey P. Thompson. 2020. Estimating the Marginal Propensity to Consume Using the Distributions of Income, Consumption, and Wealth. *Journal of Macroeconomics* 65: 103218. [\[CrossRef\]](#)
- He, Yugang, Jingnan Wang, and Baek-Ryul Choi. 2021a. Religious Participation: Does It Matter for Sustainable Culture and Entertainment Consumption? *Sustainability* 13: 7999. [\[CrossRef\]](#)
- He, Yugang, Yinhui Wang, and Xiaodan Gao. 2021b. What Role Does Religion Have in Shaping Human Consumption? *Religions* 13: 8. [\[CrossRef\]](#)
- Holt, James B., Jacqueline W. Miller, Timothy S. Naimi, and Daniel Z. Sui. 2006. Religious Affiliation and Alcohol Consumption in the United States. *Geographical Review* 96: 523–42. [\[CrossRef\]](#)
- Kalema, David, Wouter Vanderplasschen, Sofie Vindevogel, and Ilse Derluyn. 2016. The Role of Religion in Alcohol Consumption and Demand Reduction in Muslim Majority Countries (MMC). *Addiction* 111: 1716–18. [\[CrossRef\]](#)
- Kebede, Adane, Magnus Jirstrom, Alemayehu Worku, Kassahun Alemu, Hanna Y. Berhane, Christopher Turner, Eva-Charlotte Ekström, and Yemane Berhane. 2022. Residential Food Environment, Household Wealth and Maternal Education Association to Preschoolers' Consumption of Plant-Based Vitamin A-Rich Foods: The EAT Addis Survey in Addis Ababa. *Nutrients* 14: 296. [\[CrossRef\]](#)
- Ketel, Eva C., Monica G. Aguayo-Mendoza, René A. de Wijk, Cees de Graaf, Betina Piqueras-Fiszman, and Markus Stieger. 2019. Age, Gender, Ethnicity and Eating Capability Influence Oral Processing Behaviour of Liquid, Semi-Solid and Solid Foods Differently. *Food Research International* 119: 143–51. [\[CrossRef\]](#)
- Lei, L. I., Shi-Xian Zhai, and Jun-Fei Bai. 2021. The Dynamic Impact of Income and Income Distribution on Food Consumption among Adults in Rural China. *Journal of Integrative Agriculture* 20: 330–42. [\[CrossRef\]](#)
- Li, Lian, Ning Sun, Lina Zhang, Guodong Xu, Jingjing Liu, Jingcen Hu, Zhiying Zhang, Jianjun Lou, Hongxia Deng, and Zhisen Shen. 2020. Fast Food Consumption among Young Adolescents Aged 12–15 Years in 54 Low-and Middle-Income Countries. *Global Health Action* 13: 1795438. [\[CrossRef\]](#) [\[PubMed\]](#)
- Loy, David R., and Jonathan Watts. 1998. The Religion of Consumption: A Buddhist Perspective. *Development* 41: 61–66.
- Madsen, Richard. 2011. Religious Renaissance in China Today. *Journal of Current Chinese Affairs* 40: 17–42. [\[CrossRef\]](#)

- Massarelli, Luca, Leonardo Aniello, Claudio Ciccotelli, Leonardo Querzoni, Daniele Ucci, and Roberto Baldoni. 2017. Android Malware Family Classification Based on Resource Consumption over Time. Paper Presented at the IEEE 2017 12th International Conference on Malicious and Unwanted Software (MALWARE), Fajardo, PR, USA, October 11–14; pp. 31–38.
- McCarthy, Susan K. 2013. Serving Society, Repurposing the State: Religious Charity and Resistance in China. *China Journal* 70: 48–72. [\[CrossRef\]](#)
- Medeiros, Gidyenne Christine Bandeira Silva de, Kesley Pablo Morais de Azevedo, Daniel Garcia, Victor Hugo Oliveira Segundo, Ádala Nayana de Sousa Mata, Anny Karoliny Pinheiro Fernandes, Raquel Praxedes dos Santos, Débora Danielly Barros de Brito Trindade, Isabel Morales Moreno, Daniel Guillén Martínez, and et al. 2022. Effect of School-Based Food and Nutrition Education Interventions on the Food Consumption of Adolescents: A Systematic Review and Meta-Analysis. *International Journal of Environmental Research and Public Health* 19: 10522. [\[CrossRef\]](#)
- Minton, Elizabeth A., Hu Jeffrey Xie, Eda Gurel-Atay, and Lynn R. Kahle. 2018. Greening up Because of God: The Relations among Religion, Sustainable Consumption and Subjective Well-Being. *International Journal of Consumer Studies* 42: 655–63. [\[CrossRef\]](#)
- Mottaleb, Khondoker Abdul, Gideon Kruseman, and Olaf Erenstein. 2018. Evolving Food Consumption Patterns of Rural and Urban Households in Developing Countries: A Bangladesh Case. *British Food Journal* 120: 392–408. [\[CrossRef\]](#)
- Mullen, Kenneth, Roray Williams, and Kate Hunt. 2000. Irish Descent, Religion and Food Consumption in the West of Scotland. *Appetite* 34: 47–54. [\[CrossRef\]](#)
- Nelson, Tim, Eleanor McCracken-Hewson, Gabby Sundstrom, and Marianne Hawthorne. 2019. The Drivers of Energy-Related Financial Hardship in Australia—Understanding the Role of Income, Consumption and Housing. *Energy Policy* 124: 262–71. [\[CrossRef\]](#)
- Ngo, Vu Quynh Thi, Thi Anh Dao Vo, Anh Phung Ngo, Do Mai Anh Nguyen, Minh Thu Le, Thi Phuong Loan To, and Thi Thuy Phi Nguyen. 2021. Factors Influencing on Consumer's Decision on Vegetarian Diets in Vietnam. *Journal of Asian Finance, Economics and Business* 8: 485–95.
- Orellano, Anabel, Carmen Valor, and Emilio Chuvieco. 2020. The Influence of Religion on Sustainable Consumption: A Systematic Review and Future Research Agenda. *Sustainability* 12: 7901. [\[CrossRef\]](#)
- Orkoh, Emmanuel, Phillip Frederick Blaauw, and Carike Claassen. 2020. Relative Effects of Income and Consumption Poverty on Time Poverty in Ghana. *Social Indicators Research* 147: 465–99. [\[CrossRef\]](#)
- Park, Jong Y., George P. Danko, Steven Y. C. Wong, Abraham J. Weatherspoon, and Ronald C. Johnson. 1998. Religious Affiliation, Religious Involvement, and Alcohol Use in Korea. *Cultural Diversity and Mental Health* 4: 291. [\[CrossRef\]](#)
- Qian, Long, Feng Li, Xia Zhao, Hongbo Liu, and Xiaojie Liu. 2022. The Association between Religious Beliefs and Food Waste: Evidence from Chinese Rural Households. *Sustainability* 14: 8555. [\[CrossRef\]](#)
- Ramírez, A. Susana, Tanya Golash-Boza, Jennifer B. Unger, and Lourdes Baezconde-Garbanati. 2018. Questioning the Dietary Acculturation Paradox: A Mixed-Methods Study of the Relationship between Food and Ethnic Identity in a Group of Mexican-American Women. *Journal of the Academy of Nutrition and Dietetics* 118: 431–39. [\[CrossRef\]](#) [\[PubMed\]](#)
- Reddy, Geetha, and Rob M. van Dam. 2020. Food, Culture, and Identity in Multicultural Societies: Insights from Singapore. *Appetite* 149: 104633. [\[CrossRef\]](#)
- Sandikci, Ozlem. 2021. Religion and Everyday Consumption Ethics: A Moral Economy Approach. *Journal of Business Ethics* 168: 277–93. [\[CrossRef\]](#)
- Suki, Norazah Mohd, and Norbayah Mohd Suki. 2015. Does Religion Influence Consumers' Green Food Consumption? Some Insights from Malaysia. *Journal of Consumer Marketing* 32: 551–63. [\[CrossRef\]](#)
- Tamang, Jyoti Prakash, Paul D. Cotter, Akihito Endo, Nam Soo Han, Remco Kort, Shao Quan Liu, Baltasar Mayo, Nieke Westerik, and Robert Hutkins. 2020. Fermented Foods in a Global Age: East Meets West. *Comprehensive Reviews in Food Science and Food Safety* 19: 184–217. [\[CrossRef\]](#)
- Tiwari, Smriti. 2019. Long-Term Effects of Temporary Income Shocks on Food Consumption and Subjective Well-Being. *Journal of Development Studies* 55: 1687–707. [\[CrossRef\]](#)
- Toti, Elisabetta, Carla Di Mattia, and Mauro Serafini. 2019. Metabolic Food Waste and Ecological Impact of Obesity in FAO World's Region. *Frontiers in Nutrition* 6: 126. [\[CrossRef\]](#)
- Tumwesigye, Nazarius M., Lynn Atuyambe, Simon P. S. Kibira, Fred Wabwire-Mangen, Florence Tushemerirwe, and Glenn J. Wagner. 2013. Do Religion and Religiosity Have Anything to Do with Alcohol Consumption Patterns? Evidence from Two Fish Landing Sites on Lake Victoria Uganda. *Substance Use & Misuse* 48: 1130–37.
- Turner, Matthew D., Molly Teague, and Augustine Ayantunde. 2021. Eating Groups within Households: Differentiation in Food Consumption by Age, Gender, and Genealogical Position in Rural Burkina Faso. *Food Policy* 101: 102093. [\[CrossRef\]](#)
- Van Bussel, Lenneke M., Caroline T. M. Van Rossum, Elisabeth HM Temme, Polly E. Boon, and Marga C. Ocké. 2020. Educational Differences in Healthy, Environmentally Sustainable and Safe Food Consumption among Adults in the Netherlands. *Public Health Nutrition* 23: 2057–67. [\[CrossRef\]](#) [\[PubMed\]](#)
- Wielander, Gerda. 2011. Beyond Repression and Resistance—Christian Love and China's Harmonious Society. *China Journal* 65: 119–39. [\[CrossRef\]](#)

- Yan, Daohao, Shaohua Wu, Yisheng Tang, Jinxia Zhu, Shenglu Zhou, and Zhenci Xu. 2022. Arable Land and Water Footprints for Food Consumption in China: From the Perspective of Urban and Rural Dietary Change. *Science of the Total Environment* 838: 155749. [[CrossRef](#)]
- Zhong, Yongping, and Hee Cheol Moon. 2020. What Drives Customer Satisfaction, Loyalty, and Happiness in Fast-Food Restaurants in China? Perceived Price, Service Quality, Food Quality, Physical Environment Quality, and the Moderating Role of Gender. *Foods* 9: 460. [[CrossRef](#)]

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.