Religion and Desire for Additional Children in a Son-preference and Low Fertility Society: Evidence From Vietnam

Nguyen Thi Hai Yen
Chulalongkorn University College of Population Studies

Truc Ngoc Hoang Dang
Mahidol University Institute for Population and Social Research

Pataporn Sukontamarn (✉ pataporn@hotmail.com)
Chulalongkorn University  https://orcid.org/0000-0003-4110-9697

Research

Keywords: Religion, fertility desire, desire for additional children, son preference, Vietnam

Posted Date: May 7th, 2021

DOI: https://doi.org/10.21203/rs.3.rs-466662/v1

License: ☺️ ☁️ This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License
Religion and desire for additional children in a son-preference and low fertility society:

Evidence from Vietnam

Plain English Summary

Aim of the research: This research aims to look into the association between religion and the desire to have additional children of women in Vietnam. We focus on women of reproductive age (15-49 years old).

Background: Vietnam provides a unique case study. The country is known for son preference and low fertility. The majority of Vietnamese people have no religion. The two main religions in Vietnam are Buddhism and Christianity.

Data and methods: We use data from the 2014 Vietnam Multiple Indicator Cluster Survey. We use statistical analysis to find out the relationship between religion and desire for additional children among women of reproductive age. We conduct the study for overall Vietnam and for each region, as there are large differences across regions.

Main findings: Religion has a strong relationship with the desire for additional children, and the relationship differs across regions. In three out of six regions, Christians are more likely to want another child compared to those with no religion. In Mekong River, Buddhists are less likely to want another child compared to those with no religion. For Northern Midlands, however, Buddhists are more likely to want another child compared to those with no religion. The study also shows that son preference exists in all regions of Vietnam, with the level increasing from the South towards the North.

Policy implications: Understanding the relationship between religion and desire for additional children for each region can support the formulation of appropriate population policies for each region in Vietnam.
Abstract

Background: The association between religion and desire for additional children has remained controversial and varies depending on the social context of the study. This study empirically investigates the relationship between religion and desire for additional children in Vietnam, a society characterized by son preference and low fertility.

Methods: Using nationally representative data from the 2014 Vietnam Multiple Indicator Cluster Survey, the study employs Probit regression analysis to investigate the relationship between religion and desire for additional children among women of reproductive age (15-49). The sample consists of 5,585 women across all six economic regions.

Results: Religion has a strong impact on the desire to have an additional child, and the relationship differs across economic regions. In three out of six regions, Christians have higher fertility desire compared to non-religious people. Fertility desire of Buddhists differs from fertility desire of non-religious people in two out of six regions, namely Northern Midlands and Mekong River. Fertility desire of those belonging to other religions is different from that of non-religious people only in Mekong River.

Conclusions: Identifying the impact of religion on desire for additional children can help promote appropriate family planning policies. The study also demonstrates that son preference exists in all regions of Vietnam, with the level increasing from the South, towards the Central and peaks in the North, especially in the regions bordering China.

Key words: Religion, fertility desire, desire for additional children, son preference, Vietnam.
Introduction

The world is facing a shift in fertility not only from high to low, as observed during the late 1950s to the late 1970s (1), but also unpredictable changes in fertility trends, especially prolonged low fertility, new unions with lower demand for children, and voluntary childlessness (2). Besides, due to the direct, indirect, and long-term effects brought about by changes in fertility trends, such as population aging, economic consequences, and sex-imbalance due to son-preference, efforts to intervene in fertility behavior are key policies for many countries (3).

The relationship between fertility desire and fertility is well documented (4). Fertility desire is considered an important first step to achieve actual fertility (5). Thus, understanding fertility desire will help policy makers to predict fertility and enable them to design appropriate policies (6). There are many studies that have documented the determinants of fertility desire, including economic conditions (7), health status (8), national population policy, socio-cultural context, environmental impacts, and beliefs about values and benefits of children (9, 10). Religion is reported to have a strong relationship with fertility desire as well as fertility in many countries (11, 12). For example, religious women tend to have higher fertility desire and higher fertility than women without religion in the United States, Spain and most European countries (13).

Vietnam provides a unique case study, as the country has a special socio-political structure. Under the Communist party's leadership, the majority of Vietnamese people follow the atheism idea due to the policy set by the government (14). In addition, given the country’s past experiences, there are many different religions in Vietnam such as Confucianism, Cao Dai, Christianity, Buddhism, etc. (15, 16). In addition, to the best of our knowledge, while there are a number of in-depth studies on religions in Vietnam (17), so far there is no quantitative research to explore the relationship between religion and demographic behaviors such as fertility desire. In addition,
previous studies have shown that fertility desire in Vietnam is shaped by traditions and norms such as son preference (10). As previous research has shown that fertility desire in Vietnam is determined by socio-cultural ideology, this study hypothesizes that religion, a belief factor similar to social culture, also determines fertility desire in Vietnam.

In sum, religion in Vietnam is likely to influence behaviors in many ways, but goes unnoticed in formulating population policies. Moreover, there has been no previous work on the impact of religion on fertility behavior in Vietnam. Therefore, this study is expected to be one of the first studies in Vietnam to investigate the relationship between religion and fertility desire. We aim to explore how religion influences fertility desire in a son-preference and low fertility society dominated by atheism. Research results are expected to play an important role in the formulation of population policies in Vietnam.

Country context

Religion and culture belief in Vietnam

Vietnam is recognized as a country with many religions, beliefs and socio-cultural traditions. For example, Buddhism was introduced to Vietnam very early and dominated the cultural and spiritual life from the first century to the 7th century, until the arrival of Confucianism from China (17). From the beginning of the 10th century till present, Confucianism has mainly dominated the socio-cultural life and the behavior of Vietnamese people due to over a thousand years of Chinese domination (16). The Confucian morality stipulates that men must be the main breadwinner of the family who make decisions on important family matters and educate all family members (18). On the other hand, women’s main role is to take care of the family. A woman is required to always obey her father when she is unmarried, her husband during marriage, and when
the husband dies, listen to her eldest son (19). Confucianism promotes the idea of respecting men because men take on the role of continuing the lineage and worshiping ancestors (20). Confucianism places importance on having at least one son, as daughters are thought to belong to their husbands’ families after marriage (21).

Christianity in present-day Vietnam has two main branches which are Roman Catholic and Protestant (22). Roman Catholic is considered the first of Christianity in Vietnam and was evangelized during the French colonial period, and Protestantism came to Vietnam around 1911 (23). By 2019, Catholics accounted for the highest percentage (6.1 percent) among the group of people with religion, while the proportion of Protestants was 1.0 percent (24). Unlike Buddhism, which does not clearly state the view of the value of children, both Catholic and Protestant Bibles clearly state that children are gifts from God. Thus, Catholics and Protestants are expected to have higher fertility desire compared to those not belonging to these two religious groups (25).

Since 1954, under the communist political regime, Vietnam has become an atheist state. At present, the proportion of people without religion is higher than the proportion of those with religion (14, 15). According to the 2019 population and housing census, the percentage of the population without religion accounts for 86.3 percent (24). In addition, Vietnam is also home to different religious groups such as Cao Dai, Hoa Hao Buddhism, Islam, and other religions that appeared in the early 20th century (17). As of 2009, each of these groups accounted for less than 1 percent of the population (24).

As a result, religions in Vietnam today are quite diverse due to the mixture of different religious forms along with the development of the nation. Conceptions of each type of religion and belief are also changed to suit people's beliefs (19). However, son preference still has a heavy
influence on Vietnamese society, in parallel with the strong development of atheism according to the communist ideals.

Methods

Study Design

This study draws on nationally representative data from the 2014 Vietnam Multiple Indicator Cluster Survey (MICS). In-person interviews were conducted in six economic regions of Vietnam, where the information was collected from reproductive-age women (15 to 49 years). The 2014 MICS survey collected data from 10,018 households and 9,827 women residing in the households. The information on the households and on the women were provided in two separate datasets. In this study, we merged these separate datasets, using a unique identifier, to capture information both at the household level and the individual level. Given that the main purpose of this study is to investigate the association between religion and desire for additional children, we restricted the dataset to women with at least one child. This produced a sample of 5,585 women with at least one child.

Measures

Fertility desire: The dependent variable is fertility desire. This is captured by women’s desire to have additional child in the future at the time of interview. Women who had at least one child were asked “Would you like to have (a/another) child, or would you prefer not to have any more children?” (0=no more, 1=have another child). We excluded women who were not physically able to get pregnant.

Religion: Religion is the main independent variable. We employ self-reported religion, where the respondents reported their own religion. The question regarding religion in the
household questionnaire has the following choice of answers: (1) Buddhism, (2) Islam, (3) Cao Dai, (4) Hoa Hao, (5) Christianity (Catholicism), (6) Christianity (Protestantism), (7) Other religion, (8) No religion. We grouped the responses into the following 4 categories: (1) No religion, (2) Buddhism, (3) Christianity (including Catholicism and Protestantism), (4) Other religions (including all the other religions).

Methodology

First, the test for perfect collinearity is conducted; the results indicate that all independent variables do not have a high correlation with one another. For the descriptive statistics, the Fisher exact test is applied instead of the Chi-squared test because the number of observations for specific religions are small and does not satisfy the condition of sample size for Chi-squared test.

For the main analysis, ordered probit regression is employed to examine the relationship between religion and desire for additional children and marginal effects are reported. The estimated probability of desire for additional children comes from:

\[ F (Y = 1 |X) = \Phi (X^{RC} \beta) \]

Where \( F \) denotes a fertility outcome (the probability that a woman wants to have additional children), and \( \Phi \) is the Cumulative Distribution Function (CDF) of the standard normal distribution. Here \( \beta \) is estimated by maximum likelihood. \( X^{RC} \) is the set of independent variables that are comprised of:

(i) Main independent variables: These are the variables representing religion of the respondent. The information comes from self-reported religion which has 4 categories, namely, Buddhism, Christian, other religion and no religion. Here no religion is the baseline category.
(ii) The control variables in the model include socio-demographic characteristics of the women (women’s education, age at last birth, whether living in female-headed household, ethnicity, marital status, work status, urban/rural residence), household characteristics (having older persons in household, family wealth status), children’s characteristics (sex composition of children and child mortality, number of children alive, age of last child), social indicators and other factors (sex ratio at birth, attitudes towards domestic violence, and access to mass media).

The analysis captures son preference culture in the regression model by including sex composition of children and sex ratio at birth at the provincial level. In addition, based on the large differences in TFR across economic regions, the analysis is conducted separately for each economic region. This is to capture the differences in the relationship between religion and fertility desire across regions, which should lead to specific recommendations for each region.

For further investigation, the authors also incorporate interactions between religion and the sex composition of children (i.e., having no son) to investigate how religion is associated with the desire for additional children, conditional on the sex composition of children.

**Descriptive Statistics**

Table 1 presents the percentage of women who wanted to have additional children according to religion and sex composition of living children, classified by region. The differences in desire for additional children based on religion are statistically significant at the 5% level in North Central and Central Highlands, and 10% level in Northern midlands. For North Central, women belonging to other religions have the highest percentage wanting additional children, while Buddhists have the lowest percentage, followed by those with no religion. In the case of Central Highlands, Christians have the highest percentage of women who wanted another child, while
Buddhists have the lowest percentage. On the other hand, for Northern midlands, Buddhists have the highest proportion of women who wanted to have additional children, followed by Christians, and those with no religion, respectively. For South East, Red River, and Mekong River, the differences are not statistically significant.

The percentage of women who wanted another child based on sex composition of living children provides clear evidence of son preference across all regions of Vietnam. The percentage of women with no son who wanted additional children is much higher than in the case of women with at least one son. The differences are statistically significant at the 1% level for all six regions of Vietnam.

**Empirical Findings**

Tables 2 and 3 present the relationship between religion and fertility desire. Table 2 reports the results with the level terms only, while Table 3 additionally includes the interaction terms between dummy variables representing different religions and having at least one son.

The results in Table 2 suggest that son preference is prevalent across all regions of Vietnam. The variable ‘having at least one son’ is negative and statistically significant for overall Vietnam and all six regions. The results imply that women with at least one son are less likely to want another child compared to women with no son. The magnitude of the marginal effect ranges from smallest (-0.04) in South East and Mekong River, to largest (-0.15) in Northern Midlands. The results suggest that the level of son preference is increasing from the South, to the Central, to the North of Vietnam. The level of son preference appears strongest in the northernmost part of Vietnam which borders China (namely Northern Midlands). The results also show that women with more children are less likely to want another child, as expected.
In the case of Buddhism, the results in Table 2 suggest that, for Northern Midlands, Buddhists are more likely to want another child compared to those with no religion, controlling for other factors. On the other hand, for Mekong River, Buddhists are less likely to desire additional children compared to those with no religion. For all other regions and overall Vietnam, the difference is not statistically significant. The results in Table 3 show that, for Northern Midlands, the level term ‘Buddhism’ is positive and statistically significant, while the interaction term between ‘Buddhism’ and ‘having at least one son’ is negative and statistically significant. The level term result implies that, for women with no son, Buddhists are more likely to want another child compared to those with no religion. The interaction term result suggests that, conditioned on having at least one son, Buddhists are less likely to want another child compared to women with no religion. The results together imply stronger son preference among Buddhists as compared to those with no religion in Northern Midlands. For all other regions and overall Vietnam, the level term ‘Buddhism’ and the interaction term between ‘Buddhism’ and ‘having at least one son’ are not statistically significant.

For Christianity, the results in Table 2 demonstrate that, controlling for other factors, Christians are more likely to want another child compared to women with no religion in the case of South East, North Central, Central Highlands, and overall Vietnam. Table 3 shows that the level term ‘Christianity’ is positive and statistically significant in the case of South East and overall Vietnam. The results imply that, for those with no son, Christians are more likely to want another child compared to women with no religion in the case of South East and overall Vietnam. The interaction term between ‘Christianity’ and ‘having at least one son’ is negative and statistically significant in the case of South East, and positive and statistically significant in the case of North Central. For South East, conditioned on having at least one son, Christians are less likely to want
another child compared to women with no religion. On the other hand, for North Central, conditioned on having at least one son, Christians are more likely to want another child compared to those with no religion.

For other religions, the results in Table 2 suggest that women belonging to other religions are less likely to want another child compared to those with no religion in Mekong River. For all other regions and overall Vietnam, the difference is not statistically significant. Table 3 presents the results including the interaction term between ‘Other religions’ and ‘having at least one son’. In the case of Central Highlands and overall Vietnam, for those with no son, women belonging to other religions are less likely to want another child compared to those with no religion. On the other hand, in the case of North Central, for those with no son, women belonging to other religions are more likely to want another child compared to those with no religion.

Tables 2 and 3 show that several control variables are correlated with desire for additional children. Education appears an important factor determining desire for additional children. For overall Vietnam, women with lower secondary, upper secondary, and university education are more likely to want another child compared to those with primary education or lower. The positive relationship between education and desire for additional children is observed in South East and Northern Midlands. On the other hand, women with higher education are less likely to want another child compared to those with primary education or lower in the case of Red River. For other regions, there is no statistically significant relationship between education and desire for additional children.

The relationship between income and desire for additional children also varies depending on the region. For overall Vietnam, those belonging to the middle group are more likely to want another child compared to the rich. For Red River and Mekong River, women who are poor are
more likely to want another child compared to those who are rich. On the other hand, for South East, women who are poor are less likely to want another child compared to those who are rich.

Several socio-demographic characteristics of the women, children’s characteristics, and social indicators are correlated with desire for additional children. For overall Vietnam as well as all six regions, women whose last child is older are less likely to want additional children, as would be expected. Moreover, women who were older when their last child was born are less likely to desire additional children. For overall Vietnam and all six regions, compared to women who are married, those who are widowed/divorced/separated are less likely to want additional children. Women who are heads of households are less likely to want another child in the case of Red River. For North Central, women who have experienced child mortality are more likely to want additional children compared to those who do not have such an experience. Access to mass media is positively correlated with desire for additional in the case of Northern Midlands. In the case of overall Vietnam and Mekong River, women from provinces with higher sex ratio are more likely to want another child compared to those from provinces with lower sex ratio. For region of residence, compared to women in South East, those in North Central are more likely to want another child, controlling for other factors.

Discussion

The results show that there is a significant relationship between religion and fertility desire in Vietnam, and the relationship differs across economic regions. This can be explained by the differences in the degree of son preference as well as the sectors of employment and economic conditions across the regions. Christians have higher fertility desire compared to non-religious people in three out of six regions, namely Southeast, North Central and Central Highland. Fertility
desire of Buddhists differ from fertility desire of non-religious people in two out of six regions, which are Northern Midlands and Mekong River. For those belonging to other religions, their fertility desire is different from that of non-religious people only in Mekong River. Compared with earlier studies which investigate the relationship between socio-cultural factors (in particular son preference) and fertility desire (26, 27), this study adds to previous findings that spiritual factor, namely religion, is also linked to fertility desire.

Another contribution of the study is the demonstration that son preference exists in all regions of Vietnam, with the level increasing from the South, towards the Central and peaks in the North, especially in the regions bordering China. This result is consistent with the research on fertility desire of Vietnamese women (10), where son preference has been confirmed to exist in all regions of Vietnam, and the level is higher in the North than in the South. Therefore, the study provides support for more explicit intervention policy in eliminating traditional patrilineal systems, son preference, and gender bias in Vietnam for more effective fertility control.

Regarding Buddhism, the results show the difference in fertility desire between Buddhists and those with no religion in Northern Midlands and Mekong River. In Northern Midlands, Buddhists tend to want more children compared to those with no religion. On the other hand, in Mekong River Buddhists are less likely to want another child compared to those with no religion. The combination of the differences in the sectors of employment, the level of son preference and economic status can provide reasonable explanations. The forestry land use in Northern Midlands and Mountain areas was 6098.5 thousand hectares compared to 511.2 thousand hectares in Mekong River (28). As a result, Northern Midland's main economic sector is based on forestry, so there is more need for children to support the household economy. Also, as mentioned above, the level of son preference is very high in Northern Midlands (Northern part of Vietnam) compared to Mekong
River (Southern part of Vietnam). Moreover, in Northern Midlands, Buddhists are the poorest group in society, while in Mekong River Buddhists are among the richest. It is possible that, in Northern Midlands, Buddhist are more likely to want another child compared to those with no religion as they are poorer and likely to work in agriculture. As those with no religion in Northern Midlands are more likely to work for the government, their fertility desire is possibly affected by the one-or-two child policy. On the other hand, for the more economically developed Mekong River, Buddhists are among the richest groups in society and are more likely to work in the service sector such as trade. As Mekong River has low Total Fertility Rate (TFR), and Buddhists do not have specific religious value of children (as in the case of Christians), they are more likely to follow the social norms of lower fertility in the region. This possibly explains the lower fertility desire of Buddhists compared to those with no religion in the region. Previous studies have demonstrated the relationship between economic conditions and fertility both in developed and developing countries (29, 30). The results here show that, while religion is associated with fertility desire, economic conditions can shape the direction of the relationship.

Another interesting finding is that the Buddhists have stronger son preference than those without religion in the Northern Midlands. In Vietnam, non-religious people are likely the group that work in government agencies because non-religiousism is the direction of the communist regime (31). They also tend to have higher education which is required for government positions, and high educational attainment has been linked to low fertility in many studies (32, 33). Additionally, government workers have pension funds, so they do not need to financially depend on children during old age. High education and old age financial security can lead to low fertility desire among government workers. The one-or-two child policy also applies only to those employed by the government and members of the Communist Party. Therefore, non-religious
people working for the government are also likely to limit their desire to have children. On the other hand, Buddhists in Northern Midlands are poor and more likely to work in agriculture, therefore having sons can be important for them as sons can help in agricultural work.

Regarding Christianity, Christians are more likely to want another child compared to women with no religion. The difference in fertility desire can be influenced by the value of children among Christians, where children are considered a gift from God. Therefore Christians are more inclined to have children compared to non-religious people (25, 34). Additionally, both Christians and Protestants refrain from using contraception because it is against the fundamental principle of Roman Catholic marriage and against the Protestants' bible content "be fruitful and multiply" (35). Besides, for those with no son, Christians are more likely to want another child compared to women with no religion. As discussed above, non-religious people tend to work as government officials, therefore the one-or-two-child policy can be an explanation here. On the other hand, Christians are free to have more children until they have a son.

In addition, there are two conflicting trends in the fertility desire between Christians and non-religious people who have at least one son in South East and Northern Midlands. For South East, conditioned on having at least one son, Christians are less likely to want another child compared to women with no religion. On the other hand, for Northern Midlands, conditioned on having at least one son, Christians are more likely to want another child compared to those with no religion. TFR in the South East has always been lower than TFR the Northern Midlands over the past decade (28). Christians with at least one son in South East are perhaps more likely to follow the social norm of low TFR in the region. For Northern Midland, it is possible that Christians are more likely to follow the social norms of high TFR while those with no religion are more likely to be constrained by the one-or-two child policy. Moreover, mix-gender preference is
also confirmed in Northern Midland (10). Therefore, in the case of Christians (who are not
constrained by the one-or-two child policy), even if they already have one son, they might be more
likely to want another child in order to have children of both genders.

In the case of other religions, in Mekong River, women belonging to other religions are
less likely to want another child compared to those with no religion. Further analysis reveals that
there are differences in the level of education and economic status between those belonging to
other religions and those with no religion in Mekong River. People belonging to other religions
have lower education and economic status compared to non-religious people. It is possible that, in
certain context, those with low education and economic status have lower fertility desire compared
to those with high education and economic status. This result is in line with studies indicating that
higher education and income can lead to higher fertility due to the ability to bring up children (36).
It is also possible that the beliefs of women belonging to other religions influence their fertility
desire.

On the other hand, in Northern Midlands and Mountain Areas, for those with no son,
women belonging to other religions are more likely to want another child compared to those with
no religion. There are two plausible reasons for this. Firstly, we expect followers of other religions
to be from mountainous ethnic minorities, therefore, they have the opportunity and are allowed to
have many children according to the government's fertility incentive policy aimed at protecting
ethnic minorities. Secondly, as explained above, son preference and the need for a son to support
the family in the agricultural and forestry sector is quite high in the Northern Midlands. This is
possibly the case for those belonging to other religions as they are likely to work in agriculture.

**Conclusions**
Our research provides key findings on the relationship between religion and desire for additional children in Vietnam, a society characterized by son preference and low fertility. Religion has strong impact on desire to have an additional child, especially for women with low economic status. Those who have a religion are more likely to want another child compared to those with no religion. In Vietnam, government officials are constrained by the one-or-two child policy and are also more likely to report having no religion (or are Buddhists rather than Christians). This could partly explain the finding that those who reported having no religion are less likely to want additional children compared to those having a religion (particularly Christians and Buddhists). The findings also suggest strong son preference in Vietnam, with the highest level in the Northern part bordering China. Preventing ultrasounds to detect fetal sex, sex-selective abortion and improving women’s empowerment have long term implication for reducing son preference and improving women’s health. This paper has identified the relationship between religion and fertility desire, and the findings have implications for appropriate family planning policies for a developing country as Vietnam.

References


24. General Statistic Office. The Vietnam Population and Housing Census of 00:00 Hours on 1 April 2019: Final Results [Kết quả Tổng Điều Tra Dân Số và Nhà Ở thời điểm 0 giờ ngày 01 tháng 4 năm 2019]. Central Population and Housing Census Steering Committee [Ban Chỉ Đạo Tổng Điều Tra Dân số và Nhà ở Trung ương]; 2019.


34. Horn CB, Martens JW. "Let the little children come to me": childhood and children in early Christianity: CUA Press; 2009.


Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- Tables.pdf