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| **Thesis defense for the School of Canon Law** | | | | | | | | | | |
| **Department (division) name** | **Department of Sociology, Canonical College** | | | | **Major Name** | **Sociology of Religion** | | | | |
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| **Papers** | | | | | | | | | | |
| **Paper title [subtitle]** | | | **Research on the relationship between religion and income**  **[centered on "religiosity, religious affiliation, and participation in religious activities" and income].** | | | | | | | |
| **Summary of findings** | | | **This study addresses the relationship between religion and income, and specifically seeks to understand how income affects religiosity, religious affiliation, and religious behavior. Religiosity refers to an individual's and society's relationship with religion, which is defined here as the level of belief in spiritual objects (or transcendent beings) and an individual's sense of control over life. Since the latter is related to reliance on God, it makes sense to include it in the definition of religiosity. In addition, income includes not only actual income, such as wages, but also the subjective perception of income, which is class consciousness and satisfaction with income. In South Korea, there is a gap between actual income and perceptions of income, so we included subjective perceptions of income in our analysis.**  **Three conclusions can be drawn: first, the level of participation in religious activities is unrelated to income and class consciousness. On the other hand, there is a significant correlation between income and religiosity: the higher the actual income, the lower the perceived personal control over life. The relationship between class consciousness and belief in a transcendent being is mediated by the "influence of religion on life" variable: the higher the class consciousness, the greater the influence of religion on life, and the latter increases the level of belief in a transcendent being. This mediator effect also occurs in the relationship between religiosity and class consciousness.**  **This mediating effect can be interpreted as follows. The higher the class consciousness, the clearer the perception of the opportunity to succeed, which is limited by the individual's own efforts to achieve it, i.e., they realize that external factors (luck) affect success, which they will try to overcome with religion.**  **While this study is important because it examines the relationship between religion and income, it is limited by the fact that it does not distinguish between types of religion. It also utilized only a subset of the various definitions of religiosity and excluded subjective perceptions of religiosity. Future research should address these issues to gain a deeper understanding of the relationship between religion and income.**  **Keywords: religiosity, participation in religious activities, religious affiliation, income, class consciousness, mediation effects** | | | | | | | |
| **Submit your senior thesis to the Department of Sociology at the College of Canon Law as above.**      **December 5, 2022**  **Submitted By: Jungwoon Kim (In)**  **Dean of Kyung Hee University You** | | | | | | | | | | |
| **Thesis advisor review results** | | | | | | | | | | |
| **Thesis Advisor** | | **First Name** | | **(in)** | | | | | | |
| **Overall review (\* Be sure to include P/N comments)** | | | | | | | | | | |
| **Identify the department chair** | | | | | | | | | | |
| **Department Chair** | | **First Name** | | **(in)** | | | **Graduate Thesis**  **Passed** | | **P/N Description** | |

Research on the relationship between religion and income

:Religiosity, religious affiliation and participation in religious activities, and income.

Jungwoon Kim, Department of Sociology, Chungkyung University (2017103580)

|  |
| --- |
| Summary |
| This study addresses the relationship between religion and income, and specifically seeks to understand how income affects religiosity, religious affiliation, and religious behavior. Religiosity refers to an individual's and society's relationship with religion, which is defined here as the level of belief in spiritual objects (or transcendent beings) and an individual's sense of control over life. Since the latter is related to reliance on God, it makes sense to include it in the definition of religiosity. In addition, income includes not only actual income, such as wages, but also the subjective perception of income, which is class consciousness and satisfaction with income. In South Korea, there is a gap between actual income and perceptions of income, so we included subjective perceptions of income in our analysis.  Three conclusions can be drawn: first, the level of participation in religious activities is unrelated to income and class consciousness. On the other hand, there is a significant correlation between income and religiosity: the higher the actual income, the lower the perceived personal control over life. The relationship between class consciousness and belief in a transcendent being is mediated by the "influence of religion on life" variable: the higher the class consciousness, the greater the influence of religion on life, and the latter increases the level of belief in a transcendent being. This mediator effect also occurs in the relationship between religiosity and class consciousness.  This mediating effect can be interpreted as follows. The higher the class consciousness, the clearer the perception of the opportunity to succeed, which is limited by the individual's own efforts to achieve it, i.e., they realize that external factors (luck) affect success, which they will try to overcome with religion.  While this study is important because it examines the relationship between religion and income, it is limited by the fact that it does not distinguish between types of religion. It also utilized only a subset of the various definitions of religiosity and excluded subjective perceptions of religiosity. Future research should address these issues to gain a deeper understanding of the relationship between religion and income. |
| Keywords: religiosity, participation in religious activities, religious affiliation, income, class, mediation effect |

1.Introduction

Existing research on religion addresses the impact of religion on individuals. Some of these studies have found that having a religion and believing in it is associated with negative attitudes toward suicide (Kim, Jungbaek, & Cho, Kwangdeok, 2022), or that religious people place a positive value on marriage (Cho, Kwangdeok, 2022). There is also a significant positive correlation between older adults' life satisfaction and their attitudes toward and participation in religion (Woo, Heesoon, & Cho, Yooim, 2017).

There are also many theoretical reviews of religion, such as analyzing religion based on Brudieu's theory to suggest future research directions (Hyun Jun Kim, 2021) or theoretically analyzing Myanmar's military dictatorship in relation to religion (Hyung Kyu Lee, 2022). Another study analyzes the subjective interpretation of the meaning of donations in churches based on a survey (Jae Young Jung, 2011). Thus, there are attempts to analyze the relationship between religion and individuals and society, and research is being conducted in various ways.

However, practicing their religion requires cash payments, and as of 2005, Protestants paid an average of 125,600 won per month, about 10 times more than Buddhists and Catholics (Jung, 2011). This is about 19.38% of the 2005 minimum wage of 647,900 won (209 hours of work). In another survey, Protestants earned 28.75 million won per month (Seo, Hwa-dong, 2008), or 36.1% of the minimum wage of 787,930 won at the time. As you can see, religious people, especially Protestants, pay a lot of money for religious activities. However, to the best of my knowledge, there are no studies on the relationship between income and religion. Therefore, this study aims to understand how income affects religion.

2.Hypotheses, data, and methods

1) Hypothesis

To explore the relationship between religiosity and income, we will formulate and test several hypotheses. In this context, religiosity refers to an individual's and society's relationship with religion, which includes things related to religion, such as the level of belief in religion. However, here we define it as "a worldview and belief in spiritual objects (or transcendent beings). This is because these are not only closely related to religion, but can also be perceived by non-religious people. Since this study deals with income, it makes sense to have religious and non-religious people as the population. Therefore, religiosity should be defined in a way that is closely related to religion but does not exclude non-religious people. And income includes not only actual income, such as wages, but also subjective perceptions (i.e., class). As there is a large gap between actual income and perceptions of income (Park, 2022), we believe that focusing only on actual income may bias the results. Therefore, we utilized both actual income and perceived class in our analysis, and unless otherwise noted, income includes both objective definitions and subjective perceptions. Based on these definitions, we test the following hypotheses

The first hypothesis becomes, "Higher income is associated with more active participation in religious activities," and the second hypothesis becomes, "Lower income is associated with a higher probability of being religiously unaffiliated." The final hypothesis becomes "There is no relationship between income and religiosity."

The first hypothesis relates to the fact that religious activities are time and money consuming. This hypothesis was developed because higher incomes increase the ability to pay, which can lead to increased religious activity. The second hypothesis contrasts with Karl Marx's ideas about religion, who believed that low-income people could find solace in their unhappiness by practicing religion. However, I thought of the relationship between religiosity and income from a different perspective, as the negative narrative of wealth emphasized by religion may be perceived as a contrast to reality: the lower the income, the more likely it is that people will not have a religion because they perceive the tenets of religion as mere self-aggrandizement. The third hypothesis relates to the fact that religion in South Korea is strongly characterized as an up-and-down faith. Rather than cultivating faith and adopting doctrines as a way of behavior, religion in Korea is viewed as a means to enrich one's life in the real world (Gong, Chung, & Bae, 2021). In this paper, religiosity refers to a religious worldview (transcendent existence such as an afterlife, God, etc.), so there is no relationship between income and religiosity in South Korea, where religion is simply a means to an end.

2) Research data and analysis methods

We utilized the KGSS 2018 data, and first, we used the survey questions that seemed to be related to religiosity as the dependent variable, especially those that asked about the perception of a transcendent being. If a respondent answered "don't know" to any of the questions, the data was excluded from the analysis. This reduced the number of data from 1031 to 648. This is due to the large number of questions used in the analysis, which is proportional to the number of questions and the probability of marking any one question as don't know. However, other methods, such as replacing missing values with values from cases that are similar to the data rather than removing the data, can introduce bias. This is exacerbated in noisy situations, such as in the social sciences, so it makes sense to remove non-responsive data.

Factor Analysis (hereinafter referred to as FA) was used to identify the factors of the ordinal questions and combine the questions based on them. In other words, the existing survey questions were converted to Likert scales, and the ordinal variables were used in the regression analysis. Since income is a continuous variable, the relationship between religiosity and income was analyzed using logistic regression. In addition, we identified the variables that significantly affect religiosity, religious activities, and religious status in advance and reflected them in the regression model. In particular, we used variables related to family environment and ups and downs in the model to determine whether income has a significant effect even when controlling for variables that are known to affect the dependent variable. This is because it is known that if parents are religious, their children tend to believe in religion (Kim, Mi-Sook, & Kim, Seung-Joo, 2020; Han, Nae-Chang, 2010), and religion in Korea is strongly characterized by ups and downs (Gong, Chung-Bae, 2021).

The data analysis was performed using Python 3 in a Jupyter notebook environment on Android 12 and Windows 10. The libraries used were pandas, scipy, matplotlib, statsmodels, and FactorAnalyzer. We used R to review the results in Python, which we will discuss in more detail later.

3.Variables and Survey Questions

First, we introduce the survey questions used to measure each variable. The English words in parentheses are the variable names associated with the question in KGSS, which were used in the FA and regression analyses. Also, when reading the SPSS file (sav) into Python, the data were recognized as strings rather than numbers, so we encoded them as numbers. As a result, the coding of the questions presented may differ from that of the KGSS questionnaire.

1) Dependent variable

First of all, the survey questions used to measure religiosity are five in number, and they all ask about perceptions of transcendent beings (or absolutes) and worldviews. As such, they are consistent with our previous definition of religiosity.

(1) Please tell me which of the following statements comes closest to your idea of God (GODCONC).

|  |
| --- |
| I do not believe in the existence of God |
| I don't know if there is a God, and I don't think there is any way to know if there is a God. |
| ③ I do not believe in God, but I do believe that there is some transcendent force. |
| ④ Sometimes I believe in the existence of God and sometimes I don't. |
| ⑤ I believe in the existence of God, although I am not without doubts. |
| ⑥ I know that God actually exists, and I don't have the slightest doubt about it. |
| ⑧Cannot be selected |

(2).Which of the following best expresses your belief in God?(GODBELI)

|  |
| --- |
| I didn't always believe in God |
| I used to believe in God, but I don't believe in God now. |
| ③ I did not believe in God in the past, but now I do. |
| ④ I have always believed in God |
| ⑧ Unable to select |

(3).To what extent do you believe each of the following: (1-Certainly believe, 2-Mostly believe, 3-Not believe, 4-Don't believe at all, 8-Can't choose)

|  |
| --- |
| The Afterlife (RELNW1) |
| Heavenly Hall (Paradise) (RELNW2) |
| ③Hell (RELNW3) |
| ④Religious Miracles (RELNW4) |

Originally, "5) Supernatural powers of deceased ancestors (RELNW7)" was also included, but we excluded it because it seemed to be different from the rest of the variables. We also excluded "5) Supernatural powers of deceased ancestors (RELNW7)" because it seemed to be related to Korea's unique culture (specifically Confucianism), but there is some debate about whether Confucianism can be included as a religion, so we excluded it for now.

(4) Please tell me to what extent you agree or disagree with each of the following statements (0-strongly disagree, 1-somewhat disagree, 2-neither agree nor disagree, 3-somewhat agree, 4-strongly agree, 8-cannot choose)

|  |
| --- |
| ①There is a God who cares about each and every person (SPIRIT1) |
| There is little humans can do to change their lives (SPIRIT2) |
| ③For me, life has meaning because only God exists (SPIRIT3) |
| ④In my opinion, life has no purpose (SPIRIT4) |
| ⑤Life is only meaningful when we give it meaning to ourselves (SPIRIT5) |
| ⑥I have my own way of connecting with God that is not through a religious organization or ritual (SPIRIT6) |

Since SPIRIT2,4 is a negative statement, unlike 1,3,5, we reverse-coded it for consistency with the other variables.

(5) Which of the following statements is closest to you: (SPIRITUA)

|  |
| --- |
| ① (If not religious) I am not religious, but consider myself a spiritual person with an interest in the sacred or supernatural. |
| 2 (if not religious) I am not religious, nor do I consider myself a spiritual person interested in the sacred or supernatural. |
| ③ (If religious) I am religious, but I do not consider myself a spiritual person interested in the sacred or supernatural. |
| ④ (if religious) I am religious and consider myself a spiritual person who is interested in the sacred or supernatural. |
| ⑧Cannot be selected |

In addition, the level of personal involvement in religious activities is measured by seven questions. This includes not just participation in regular religious events, but also personal behaviors such as reading the Bible.

(1) How often do you go to Buddhist services or worship (Mass)? (ATTEND)

|  |  |
| --- | --- |
| ⓪Not at all. | ⑤Once a month |
| Less than once a year | Two or three times a month |
| Can't say (don't remember) | ⑦ Once a week |
| ③Once a year | Several times a week |
| ④A few times a year |  |

(2) How often do you pray? (PRAYFREQ)

|  |  |
| --- | --- |
| ⓪No religion ('non-denominational') | ⑥Once a month |
| Not engaged at all, | ⑦Two or three times a month |
| Can't say (don't remember) | ⑧Almost once a week |
| ③Never (less than once a year) | ⑨Once a week |
| ④Once a year | ⑩Multiple times a week |
| A few times a year |  |

(3) How often do you currently participate in meetings or activities at churches, cathedrals, temples, etc., other than attending religious ceremonies (such as worship services or court meetings)? (RELACT; response range and coding are the same as in question (2) above)

(4) In the past 12 months, have you listened to or read the Bible, Buddha, Koran, Surah, Torah, or any other religious scripture? Please exclude if you read or listened during a religious event (READBIBL, ⓪No ① Yes ⑻ Don't know)

(5) Do you have a holy object such as an altar, shrine, Buddha, statue of Jesus, amulet, or cross in your home for religious reasons? (RELOBJT, same response as question 90)

(6) How often do you visit a place of worship, such as a church, cathedral, temple, shrine, or mosque, for religious reasons? If you are religious, do not include places you regularly attend for religious ceremonies (such as worship or court) (RELVIST).

|  |  |
| --- | --- |
| ⓪None at all | A few times a year |
| Less than once a year | ④Once a month or more often |
| Once or twice a year |  |

(7) People sometimes belong to more than one kind of group, association, or organization. Are you a member of any of the following groups, associations, or organizations (in this case, religious groups)? If so, please tell us how active you are in them, and if not, if you have been in them in the past

|  |  |
| --- | --- |
| ⓪Never belonged | Belongs but not active |
| I've been affiliated in the past | ③Be affiliated and active |

2) Independent variable

The home environment, which is known to influence religious affiliation, was measured by three questions. In addition to the level of parental involvement in religious activities, questions were asked about the respondent's own childhood involvement in religious activities. If the parent was not religiously active or had no parents, a value of 0 was assigned. Since we were asking about the level of parental religious activity, we assumed that having no parents was the same as having no parents who were religiously active. We also assigned a value of 1 for can't say (don't remember), as it is assumed that the parent was not religiously active.

(1) and (2).When you were a child, how often did your mother (father) participate in religious rituals (worship, Mass, Buddhism, etc.) (RELATNMA for mother, RELATNFA for father)

|  |  |
| --- | --- |
| ⓪ Did not participate at all, or did not have a mother (father) (per comparison) | ⑤Once a month |
| Can't say (I don't remember) | Two or three times a month |
| Never (less than once a year) | ⑦ Almost once a week |
| ③Once a year | ⑧Once a week |
| ④A few times a year | ⑨Multiple times a week |

(3).When you were about 11 or 12 years old, how often did you participate in religious ceremonies?(RELATNUP): Except for 'mother (father) was not present', the rest of the responses are the same as in question (1) above.

There are three questions used to measure an individual's income: actual income (INCOM0) and subjective perception of income (RANK, SATFIN). This is because, as mentioned in the hypothesis formulation, actual income and perception of income do not always match. For example, a recent survey on subjective perceptions of income showed that the level of income that can be perceived as middle class was 686,000 won per month on average (Park, 2022). However, this is actually in the top 24% (Park, 2022). Because of this, we want to utilize both actual income and subjective perceptions of income.

(1)If the lowest class in Korean society is 1 and the highest class is 10, where do you think you belong? Please tell us in numbers (RANK ,1,2,3,4,5,6,7,8,9,10)

(2) How satisfied or dissatisfied are you with the state of your economy? (SATFIN)

|  |  |
| --- | --- |
| ⓪Very dissatisfied | ③Somewhat satisfied |
| Slightly satisfied | ④Very satisfied |
| Neither satisfied nor dissatisfied |  |

(3) What is your average monthly gross income before tax credits? Please tell us the income of all household members, including you, including all income from work, interest, property and rental income, pensions, subsidies, or money received personally from someone (in the case of agriculture, etc., divide the annual income by 12 months and enter it in the appropriate box, and be sure to identify and enter the income of all cohabiting and noncohabiting household members listed in questions 49, 50, and 51. However, exclude household members who do not share the economy) (INCOM0, INCOME)

In this case, we've used '10,000' as the unit and INCOM0 stores the exact value of the income. INCOME, on the other hand, stores values in intervals, and we used $500,000 as the interval. We also put the median value of INCOME into INCOMO because some people may write to INCOME even if they don't respond to INCOMO. This way, we wanted to reduce the number of discarded data.

Since one of the purposes of religion is to predict the future and uncertainty, we used questions about perceptions of the future as a control variable. In addition, the regression model includes variables that are known to be related to religion in previous studies (e.g., life satisfaction), as well as items that appear to be related to religion. This was done to determine whether income has a significant effect on the dependent variable, even in the presence of other variables that affect religiosity, level of religious activity, and religious affiliation.

(1) Please tell me to what extent you agree or disagree with the statements about yourself. Please be honest with your thoughts and don't let your answer to one question influence your answer to the other. There is no right or wrong answer to each question (1-strongly disagree, 2-disagree, 3-neither disagree nor agree, 4-agree, 5-strongly agree, 8-don't know).

|  |
| --- |
| ①In the face of uncertainty, I usually expect the best possible outcome (LOTR1) |
| When something bad is likely to happen to me, something bad always happens (LOTR2) |
| ③I am always optimistic about my future (LOTR3) |
| ④In my opinion, life has no purpose (LOTR4) |
| I rarely expect good things to happen to me (LOTR5) |
| ⑥Overall, I expect more good things to happen to me than bad (LOTR6) |

We reverse-coded LOTR1,3,5 to match the responses of 2,4,6.

(2) Considering your life these days, how happy or unhappy would you say you are overall?(HAPPY)

|  |  |
| --- | --- |
| ⓪Very dissatisfied | Slightly satisfied |
| Slightly satisfied | ③Very satisfied |

(3) Please tell me how much you agree or disagree with each of the following statements (0-strongly disagree, 1-disagree, 2-neither agree nor disagree, 3-agree, 4-strongly agree, 8-can't choose)

|  |
| --- |
| Fortune tellers can really predict the future (MYTH218) |
| The owner has influence over the person's life (future) (MYTH518) |

(4) Do you believe that the spirits of dead people affect their descendants?(SOULDESC)

|  |  |
| --- | --- |
| ⓪Not at all | ③Yes |
| No | ④Very much so |
| Normal | ⑻ Don't know |

(5) How important is religion to you in choosing a spouse, did you consider it (if married) (RELIGSPOS, same response as question (4))

(6) Do you believe that your descendants will be blessed if you accumulate virtue? (VIRTUECHD, same response as question (4))

(7) Have you ever prayed or said a prayer in an emergency or critical situation? (PRAYHELP, same response as question (4))

(8) To what extent do you consider long or short days when scheduling special occasions such as weddings, moving days, and funerals? (DAYCHOOS)

|  |  |
| --- | --- |
| ⓪Don't consider it at all | Considerable consideration |
| Not much consideration | ③Consider a lot |

(9) In the past year, have you gone anywhere in particular to make a wish (for success in school or business, good health, etc.) and if so, how many times?( WISHPLAC )

|  |  |
| --- | --- |
| ⓪ None | ③Three times |
| ①Once | ④Four times |
| Twice | Five or more times |

(10) I keep an amulet or talisman that brings good luck or wards off bad luck close at hand (HAVECHRM, same response choices as question (9))

(11) How much freedom of choice do you feel you have in the things that happen in your life and that you can do as you please? (LIFEWILL)

The range of responses is (1,2,3,4,5,6,7,8,9,10), where the closer to 1, the stronger the perception that you can't do whatever you want, and the closer to 10, the stronger the perception that you can do whatever you want.

(12).Please tell me to what extent you agree or disagree with each of the following statements (0-strongly disagree, 1-somewhat disagree, 2-neither agree nor disagree, 3-somewhat agree, 4-strongly agree, 8-can't choose)

|  |
| --- |
| It helps me make friends (RELGSTY2) |
| It helps me feel comforted when I'm feeling difficult or sad (RELGSTY3) |

Before analyzing the data, let's summarize the variable codenames mentioned above and the variables associated with them. HAVERELI is a binary variable that stores a value of 1 if the person is religious and 0 otherwise, and is a variable that we created based on information from the specific questionnaire.

|  |  |
| --- | --- |
| The variable you want to measure | Variable codename |
| Religiosity | godconc, godbelli, relnw1-rennw4, spirit1-6, religious, spiritua, relfree, relneigh, relthink |
| Religious home environment | relatnma, relatnfa, relatnup |
| Religion | HAVERELI |
| Participation in religious activities | attend, relig, payfreq, relact, readbibl, relobjt, revist, varelig |
| Income | rank, satfin, incom0, income |
| Control Variables | lotr1-6, happy, myth218, myth518, shouldesc, religspos, spiritual, virtueched, prayhelp, daychoos, wishplac, havechrm, lifewill |

4.Preprocessing for variables

First, we want to consolidate the survey questions through FA analysis. In addition to converting the ordered questions into Likert scales for regression analysis, we also try to prevent multicollinearity caused by the correlation between the survey questions. This increases the variance of the regression coefficients and reduces the reliability of the results, so we reduce the number of variables using FA analysis. Also, all results in the table are rounded to 4 decimal places.

When we ran a factor analysis on RELNW1-4, one of the eigenvalues (numerical information in the scree plot) was 3.849. This means that the remaining eigenvalues are very small, and it is likely that the items can be combined into a single variable. Furthermore, the items have in common that they measure the level of belief in an afterlife (BELIEVEAFTERDEATH, or belief in a transcendent world). Therefore, it makes sense to combine them into one. In addition, when FA analysis was performed on SPIRIT1-6, two eigenvalues were above 1, one was 0.8891, and the other was 0.7. This means that two or three factors can be set for SPIRIT. <According to Table 1 and Table 2, SPIRIT5 was excluded first because its correlation coefficient with the factors was always negative, unlike the rest of the variables. Since it is a variable that is difficult to explain with factors, we can conclude that the question cannot be clustered with other variables.

In addition, according to <Table 1> and <Table 2>, the correlation coefficients of SPIRIT6 are all less than 0.5 when using two factors, and 0.76 in one part when using three factors. SPIRIT6 is different from other questions in that it does not depend on religion. Therefore, it is appropriate to group SPIRIT1-6 into (1,3), (2,4), and 6. In terms of the actual items, (1,3) measures the perception of God (RECOGGOD) and (2,4) measures human free will (HUMANWILL). SPIRIT6 also measures an individual's attitude toward exploring God on their own, regardless of religion.

|  |  |  |
| --- | --- | --- |
| SPIRIT1 | .824 | -.246 |
| SPIRIT2 | .110 | .606 |
| SPIRIT3 | -.194 | .631 |
| SPIRIT4 | -.160 | -.189 |
| SPIRIT5 | .733 | .064 |
| SPIRIT6 | .493 | .052 |
| Eigenvalues: 2.116, 1.3, 0.889, 0.697, 0.574, 0.428 | | |

<Table 1: FA analysis results for SPIRIT1-6 assuming 2 factors> <Table 2: FA analysis results for SPIRIT1-6 assuming 2 factors

|  |  |  |  |
| --- | --- | --- | --- |
| SPIRIT1 | .633 | -.181 | .131 |
| SPIRIT2 | .153 | .569 | -.035 |
| SPIRIT3 | .883 | .060 | -.090 |
| SPIRIT4 | -.246 | -.679 | .050 |
| SPIRIT5 | -.156 | -.187 | -.01 |
| SPIRIT6 | .042 | .051 | .768 |

<Table 2: FA analysis results for SPIRIT1-6 assuming 3 factors> <Table 3: FA analysis results for SPIRIT1-6 assuming 3 factors

|  |  |  |
| --- | --- | --- |
| GODCONC | 0.89 | -.072 |
| GODBELI | .955 | .187 |
| SPIRITUA | .792 | .046 |
| BELIEVEAFTERDEATH | .735 | .118 |
| RECOGGOD | .581 | .385 |
| HUMANWILL | -.082 | .322 |
| SPIRIT6 | .205 | .414 |
| Eigenvalues: 3.849, 1.054 , 0.742, 0.471, 0.354, 0.285, 0.245 | | |

<Table 3: FA analysis results for variables measuring religiosity assuming two factors and variables created based on Tables 1 and 2

|  |  |  |  |
| --- | --- | --- | --- |
| GODCONC | .7 | .185 | -.03 |
| GODBELI | 1.012 | -.115 | -.049 |
| SPIRITUA | .695 | .074 | .03 |
| BELIEVEAFTERDEATH | .09 | .907 | -.185 |
| RECOGGOD | .174 | .575 | .189 |
| HUMANWILL | -.031 | -.068 | .391 |
| SPIRIT6 | .089 | .17 | .402 |

<Table 4: FA analysis results for variables measuring religiosity assuming 3 factors and variables created based on Tables 1 and 2 > <Table 5: FA analysis results for variables measuring religiosity assuming 3 factors

<Table 3 and Table 4 show the results of FA analysis for the variables 'RECOGGOD', 'HUMANWILL', 'SPIRIT6', and 'BELIEVEAFTERDEATH', which were previously created by FA analysis, and the remaining variables 'GODCONC', 'GODELI', and 'SPIRITUA', which measure religiosity. First, only two eigenvalues are greater than 1, one is 0.74 and the other is 0.5 or less. Assuming the number of factors is 2, we can group them as ('GODCONC', 'GODELI', 'SPIRITUA', 'BELIEVEAFTERDEATH ', 'RECOGGOD'), ('HUMANWILL', 'SPIRIT6'). Assuming three factors, this would be ('GODCONC', 'GODELI', 'SPIRITUA'), ('BELIEVEAFTERDEATH', 'RECOGGOD'), ('HUMANWILL', 'SPIRIT6'). Looking at the survey questions, ('GODCONC', 'GODELI', 'SPIRITUA'), ('BELIEVEAFTERDEATH', 'RECOGGOD'), and ('BELIEVEONEXIST') are all related to the belief in unobservable beings in this world (BELIEVEONEXIST). And ('HUMANWILL', 'SPIRIT6') can be seen as a measure of individual free will (LIBERTYOFINDI). This interpretation is consistent with the number of eigenvalues greater than 1, so it is reasonable to group these variables into two.

|  |  |  |
| --- | --- | --- |
| PRAYFREQ | 0.636 | .252 |
| ATTEND | .669 | .262 |
| RELACT | .826 | .072 |
| READBIBL | .122 | .433 |
| RELOBJT | .190 | .333 |
| RELVIST | -.038 | .747 |
| VARELIG | .784 | -.019 |
| Eigenvalues: 4.138, 0.739, 0.71, 0.577, 0.39, 0.25, 0.198 | | |

<Table 5: FA analysis results for variables related to religious activity level assuming 2 factors

|  |  |  |  |
| --- | --- | --- | --- |
| PRAYFREQ | .837 | -.021 | -.053 |
| ATTEND | .847 | 0 | .071 |
| RELACT | .618 | .190 | .105 |
| READBIBL | .217 | -.007 | .345 |
| RELOBJT | .149 | .073 | .314 |
| RELVIST | -.04 | -.024 | .792 |
| VARELIG | .759 | .96 | -.89 |

<Table 6: FA analysis results for variables related to religious activity level assuming 3 factors

In the FA analysis of the level of participation in religious activities of mother ('RELATNMA'), father ('RELATNFA'), and childhood self ('RELATNUP'), only one eigenvalue was above 1. Therefore, they can be grouped together and defined as the level of exposure to religious activities in childhood ('PARTICIRELIGIONPAST'). Also, <Table 5> and <Table 6> show the FA analysis results for 'PRAYFREQ', 'ATTEND', 'RELACT', 'READBIBL', 'RELOBJT', 'RELVIST', and 'VARELIG', where only one eigenvalue is greater than 1, but two are greater than 0.7. First, if we assume 3 factors, we can group them as ('PRAYFREQ', 'ATTEND', 'RELACT'), ('VARELIG'), ('READBIBL', 'RELOBJT', 'RELVIST'). And assuming two factors, we can enclose it as ('PRAYFREQ', 'ATTEND','RELACT',VARELIG), ('READBIBL', 'RELOBJT', 'RELVIST').

If you set the factor to two, you can inherit the three results but reduce the number of factors. ('PRAYFREQ','ATTEND','RELACT',VARELIG) can be called regular religious activity (REGULARACTRELIGION), and ('READBIBL','RELOBJT','RELVIST') can be called irregular religious activity (IRREGULARACTRELIGION), because the former questions mainly deal with attendance at specific places, while the latter questions ask about personal activities related to religion. This is because the former questions mainly deal with attendance at a specific place, while the latter questions ask about personal activities related to religion.

|  |  |  |
| --- | --- | --- |
| LOTR1 | .003 | .522 |
| LOTR2 | .135 | -.107 |
| LOTR3 | .001 | .44 |
| LOTR4 | .632 | -.003 |
| LOTR5 | 1.07 | .172 |
| LOTR6 | .081 | .708 |
| Eigenvalues: 2.085, 1.184, 0.939, 0.777, 0.64, 0.375 | | |

<Table 7: FA analysis results for LOTR1-6 assuming 2 factors> <Table 8: FA analysis results for LOTR1-6 assuming 2 factors

|  |  |  |  |
| --- | --- | --- | --- |
| LOTR1 | .03 | -.016 | .58 |
| LOTR2 | .129 | .008 | -.119 |
| LOTR3 | -.015 | .986 | .02 |
| LOTR4 | .625 | -.006 | -.009 |
| LOTR5 | 1.075 | -.016 | .178 |
| LOTR6 | .061 | .035 | .636 |

<Table 8: FA analysis results for LOTR1-6 assuming 3 factors> <Table 9: FA analysis results for LOTR1-6 assuming 3 factors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| LOTR1 | -.026 | .515 | -.015 | -.02 |
| LOTR2 | 0 | -0.01 | .005 | .3.38 |
| LOTR3 | 0 | .151 | .432 | .009 |
| LOTR4 | .819 | -.059 | .036 | -.102 |
| LOTR5 | .754 | .071 | -.461 | .135 |
| LOTR6 | .266 | .651 | .03 | .002 |

<Table 9: FA analysis results for LOTR1-6 assuming 4 factors> <Table 10: FA analysis results for LOTR1-6 assuming 4 factors

<Table 7, Table 8, and Table 9 show the results of FA analysis for LOTR1-6, where two eigenvalues are greater than 1, but two eigenvalues are greater than 0.75. Therefore, the best candidate for the number of factors is 2,3,4. If we assume that there are 2 factors, we can divide it into (1,2,4,5) and (3,6), and if there are 3 factors, we can divide it into (1,4,5), (2), and (3,6). However, if there are 4 factors, it is divided into (5) ,(1,6), (3), (2,4), which is different from the previous one. This is because the classification when the number of factors is assumed to be three inherits the classification when the number of factors is two, but not when the number of factors is four. In addition, according to the survey questions, (1,4,5) measures the perception of luck, (2) measures the perception of jinx, and (3,6) measures the expectation of the future. Therefore, we can group (1,4,5) as perception of luck (ROCOGLUCK), (3,6) as expectation of future (EXPECTFUTURE), and 2 as jinx (LOTR2).

We will perform an FA analysis on the remaining independent variables, excluding income and family environment, and pool them together. This is to prevent multicollinearity. <Table 10>, <Table 11>, and <Table 12> are the results of FA analysis for 'MYTH218', 'MYTH518', 'SOULDESC', 'RELIGSPOS', 'VIRTUECHD', 'PRAYHELP', 'DAYCHOOS', 'WISHPLAC', and 'HAVECHRM'.

|  |  |  |  |
| --- | --- | --- | --- |
| MYTH218 | -.042 | .818 | .0994 |
| MYTH518 | .244 | .589 | -.042 |
| SOULDESC | .494 | .263 | .08 |
| RELIGSPOS | -.306 | .161 | .563 |
| VIRTUECHD | .615 | -.112 | .133 |
| PRAYHELP | .19 | -.029 | .673 |
| DAYCHOOS | .48 | .155 | -.161 |
| WISHPLAC | .282 | -.074 | .324 |
| HAVECHRM | .23 | .071 | -.015 |
| Eigenvalues: 2.491, 1.56, 1.077, 0.964, 0.742,0.655, 0.553 , 0.531, 0.426 | | | |

<Table 10: FA analysis results for control variables assuming three factors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MYTH218 | .84 | -.18 | .143 | 0 |
| MYTH518 | .724 | .08 | -.025 | -.034 |
| SOULDESC | .378 | .376 | .04 | .006 |
| RELIGSPOS | .12 | -.223 | .614 | -.047 |
| VIRTUECHD | -.046 | .823 | .017 | -.197 |
| PRAYHELP | -.013 | .292 | .603 | -.054 |
| DAYCHOOS | .243 | .248 | -.185 | .174 |
| WISHPLAC | -.082 | .19 | .298 | .21 |
| HAVECHRM | .003 | -.19 | -.02 | .682 |

<Table 11: FA analysis results for control variables assuming four factors

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| MYTH218 | .849 | -.15 | -.03 | .133 | 0 |
| MYTH518 | .718 | 0.858 | .276 | -.553 | .657 |
| SOULDESC | .304 | .457 | -.06 | .077 | .039 |
| RELIGSPOS | .109 | -.167 | .052 | .509 | -.016 |
| VIRTUECHD | -.09 | .706 | .04 | .039 | -.088 |
| PRAYHELP | -.095 | .411 | -.379 | .72 | .057 |
| DAYCHOOS | .228 | .294 | .047 | -.195 | .077 |
| WISHPLAC | -.018 | .073 | .962 | .064 | .014 |
| HAVECHRM | -.038 | -.11 | .009 | .023 | .823 |

<Table 12: FA analysis results for control variables assuming 5 factors

First, three eigenvalues are greater than 1 and two eigenvalues are greater than 0.7. Therefore, the number of possible factors is between three and five. Assuming five factors, the correlation coefficients of the two factors affecting RELIGSPOS are similar. This means that if RELIGSPOS is used to aggregate into a single variable as in the traditional method, the influence of the unaggregated part will be uncontrollable. To solve this problem, we need to reflect such influence or reduce the number of factors. If we look at the items ('RELIGSPOS', 'PRAYHELP', 'WISHPLAC'), we can say that they all measure the influence of religion on a person's life (EFCTOFRELIGONLIFE). Therefore, there is no need to assume five factors.

And if we assume three factors, we can group (SOULDESC, VIRTUECHD, DAYCHOOS) and (HAVECHRM) together, but the former and latter have different meanings. This is because the former is related to Korea's unique culture, while the latter can include not only Korean but also foreign cultures. Therefore, it is reasonable to assume four factors. In addition to EFCTOFRELIGONLIFE mentioned above, 'SOULDESC', 'VIRTUECHD', and 'DAYCHOOS' measure the level of Korean superstition (RELIGIONOFKOREA), and ('MYTH218' and 'MYTH518') measure the predictability of the future (POSSIBILITYOFEXPECTFUTURE).

<Table 13-1 summarizes the variables we want to measure, including the variables we created earlier, and their corresponding code names. In our analysis, "income" includes both actual income (INCOM0) and perceived class (RANK). If you want to distinguish between them, you can write "income (actual income)" and "income (rank)". Note that a low income (class consciousness) does not mean that a person is not class conscious, but rather that they perceive their economic status (position) to be low.

|  |  |
| --- | --- |
| The variable you want to measure | Variable codename |
| Religiosity | believeonexist, libraryofindi |
| Participation in religious activities | regulararctrigation,irregulararctrigation |
| Religious home environment | PARTICIRELIGIONPAST |
| Income | rank, satfin, incom0 |
| Control Variables | ROCOGLUCK, EXPECTFUTURE), LOTR2, POSSIBILITYOFEXPECTFUTURE, RELIGIONOFKOREA, EFCTOFRELIGONLIFE, SEX, RELGSTY2, RELGSTY3 |

<Table 13-1: Variables to use in models and their corresponding code names

5.Analysis Results

First, we find the correlation coefficient matrix for all variables to determine the order of adding variables to the regression model and check the possibility of multicollinearity. As shown in <Table 14>, the correlation coefficients of the independent variables are all less than or equal to 0.5, so multicollinearity does not occur. <Table 13-2 lists the independent variables in the order of the highest correlation coefficient for each dependent variable, and the independent variables are categorized as "correlation coefficient >=0.1". Model 1 is a regression model with income-related variables RANK, SATFIN, and INCOM0 as independent variables. The variables with a correlation coefficient of 0.1 or higher were added to Model 1, and the remaining variables were added to Model 2. Through these models, we want to test whether the income variables RANK, SATFIN, and INCOM0 have a significant effect on the dependent variable.

Since religiosity is a categorical variable and the independent variables are all on the same scale, we need to analyze it with a logit or probit model. The probit model can be used when the probability follows a normal distribution, but it is difficult to assume that the probability of religiosity is normally distributed. Therefore, logistic regression should be used first. If you plot a histogram of the dependent variable, you can see that only BELIEVENONEXIST has a mixed normal distribution (two normal distributions with different means). The rest of the dependent variable's distribution is closer to a palette or exponential distribution than a normal distribution. This means that we should use the Maximum Likelihood Estimation (MLE) method rather than the Least Square Estimation (LSE) method. To my knowledge, there is no library that supports MLE, and it is difficult to implement it yourself, so I did not use that methodology. However, when I plotted the histogram of the residuals after estimating with the LSE, I found that the distribution of the residuals was similar to a normal distribution, which means that one of the assumptions of regression analysis, the normality of the residuals, is fulfilled. If you plot a scatter plot between the dependent and independent variables, you can only see a linear or independent relationship. Therefore, we will use a linear regression model.

|  |  |
| --- | --- |
|  |  |
|  |  |

<Figure 1: Histograms for the dependent variables LIBARTYOFINDI, BELIEVENONEXIST, REGULARACTRELIGION, and IRREGULARACTRELIGION, clockwise from 11:00

|  |  |
| --- | --- |
|  |  |
|  |  |

<Figure 2: Histogram of regression residuals for the dependent variables LIBARTYOFINDI, BELIEVENONEXIST, REGULARACTRELIGION, and IRREGULARACTRELIGION, clockwise from 11:00 (residuals from Model 3)

|  |  |  |
| --- | --- | --- |
| Dependent Variable | Correlation coefficient >=0.1 | Correlation coefficient <0.1 |
| LIBARTYOFINDI | effectofreligonlife, religionofkorea, partialreligionpast, rocogluck, regsty3 | expectfuture, rank, incom0, satfin, lotr2, possibilityofexpectfuture, havechrm, regsty2 |
| BELIEVENONEXIST | effectofreligonlife, partialreligionpast, religionofkorea, lotr2, relgsty2, relgsty3 | rocogluck, expectfuture, satfin, havechrm, incom0 ,rank, possibilityofexpectfuture |
| regularactrelation | effectofreligonlife, partialreligionpast, lotr2, relgsty2, relgsty3 possibilityofexpectfuture | expectfuture, satfin, rank, rocogluck, religionofkorea, havechrm, incom0, religionofkorea |
| irregularactrelation | effectofreligonlife, partialreligionpast, religionofkorea, lotr2, expectfuture, relgsty2, relgsty3 | havechrm, rank, havechrm, rocogluck, satfin, possibilityofexpectfuture, incom0 |

<Table 13-2: Table of dependent and independent variables

<Looking at Model 1 in Table 15, we can see that the regression coefficient of INCOM0 on LIBARTYOFINDI is statistically significant. This is reasonable because the F-test statistic for this model is large enough. However, Table 16, Table 17, and Table 18 show that the regression coefficients of Model 1 for the remaining dependent variables are all insignificant. This means that the model is not valid.

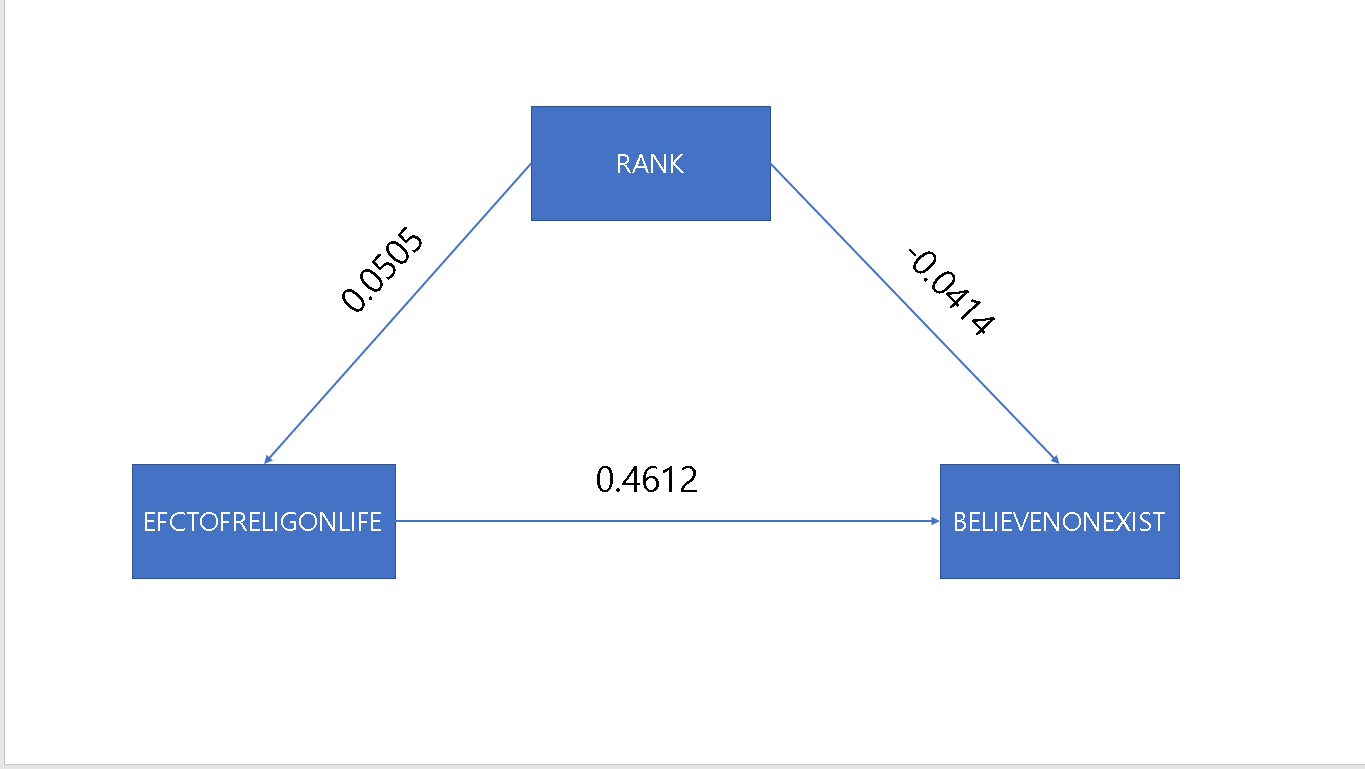
<In Model 2 in Table 15, the regression coefficient of INCOM0 on LIBARTYOFIND is still statistically significant. However, the intercept is smaller than the regression coefficient in Model 1, and the modified R-squared of Model 2 is larger than that of Model 1. Therefore, Model 2 can be considered valid. <In Table 16, the regression coefficient of RANK on BELIEVENONEXIST in Model 2 is statistically significant, which is in contrast to the insignificance in Model 1. This means that the relationship between RANK and BELIEVENONEXIST is significant when controlling for other variables, which will be discussed in detail in Table 20. <Looking at Model 2 in Table 17 and Table 18, we can see that the regression coefficients of RANK, SATFIN, and INCOM0 on the remaining dependent variables are still not significant. The same is true for Model 3. (RANK, INCOM0, SATEFIN) are variables related to income, while regular and irregular religious activities (REGULARACTREL) are variables related to the level of participation in religious activities (IRREGULARACTREL). Therefore, Hypothesis 1, which assumes a proportional relationship between income and level of participation in religious activities, should be rejected.

<The regression coefficient of INCOM0 on LIBARTYOFINDI in Model 3 of Table 15 is significant, but the regression coefficient of RANK on BELIEVENONEXIST in Model 3 of Table 16 is not statistically significant. However, adding five variables increases the modified R-squared by 0.003, which is insignificant compared to the number of variables. Also, in <Table 16>, the AIC (Akaike Information Criterion) and BIC (Bayesian information criterion) of Model 3 are larger than those of Model 2, so Model 3 cannot be considered an appropriate model. The AIC (or BIC) is a measure of the fit of the model considering the number of variables and plays a similar role to the modified R-squared. Therefore, Model 3 is not a good fit, and the effect of RANK on BELIEVENONEXIST is significant.

Given the coding scheme for SPIRIT1-6 and the definition of LIBERTYOFINDI, the value of LIBERTYOFINDI is inversely related to the individual's perceived control over life. Therefore, the higher the income (actual income, INCOM0), the less control the individual perceives to have over their life. Furthermore, the definition of BELIEVENONEXIST suggests that its value is proportional to the level of belief in an empirically unobservable entity (e.g., God). Thus, controlling for other variables, it can be argued that higher income (rank, RANK) is associated with less belief in a transcendent entity. However, due to the mediating effects discussed in the next paragraph, the relationship between income and belief is not inversely proportional.

<Table 21 is a regression model made by subtracting RANK and EFCTOFRELIGONLIFE from Model 3 in Table 16 and using the remaining variables. Since the correlation coefficient between EFCTOFRELIGONLIFE and RANK is the highest, we believe that there may be a mediating effect between them. In Model 1 of Table 21, the regression coefficient of RANK without EFCTOFRELIGONLIFE is -0.0282, which is not statistically significant. And in Table 20, the regression coefficient of RANK on EFCTOFRELIGONLIFE is 0.0505, which is statistically significant. The reason for setting RANK as an independent variable is that some of the items in EFCTOFRELIGONLIFE ask about dependence on a transcendent being. This is related to LIBARTYOFINDI, which deals with an individual's sense of control over life, and for consistency, we set RANK as an independent variable.

<In Model 2 of Table 21, the regression coefficient of EFCTOFRELIGONLIFE on BELIEVENONEXIST is 0.4612 when RANK is excluded and the other variables are present. Also, in Model 3 in Table 16, the coefficient of RANK on BELIEVENONEXIST is -0.0414 when EFCTOFRELIGONLIFE is included. Both regression coefficients are statistically significant. If we do the math with them, we get 0.0505\*0.4612-0.0414=-0.0181094, which is 0.0061 larger than the RANK regression coefficient of -0.0282 in Model 1 in Table 21. Considering the error due to computerization and the correlation coefficients between the other variables, this error can be neglected. This leads to the conclusion that EFCTOFRELIGONLIFE is a parameter for RANK and BELIEVENONEXIST, which can be expressed in the following figure.



<Figure 3: Mediated model between RANK, EFCTOFRELIGONLIFE, and BELIEVENONEXIST>.

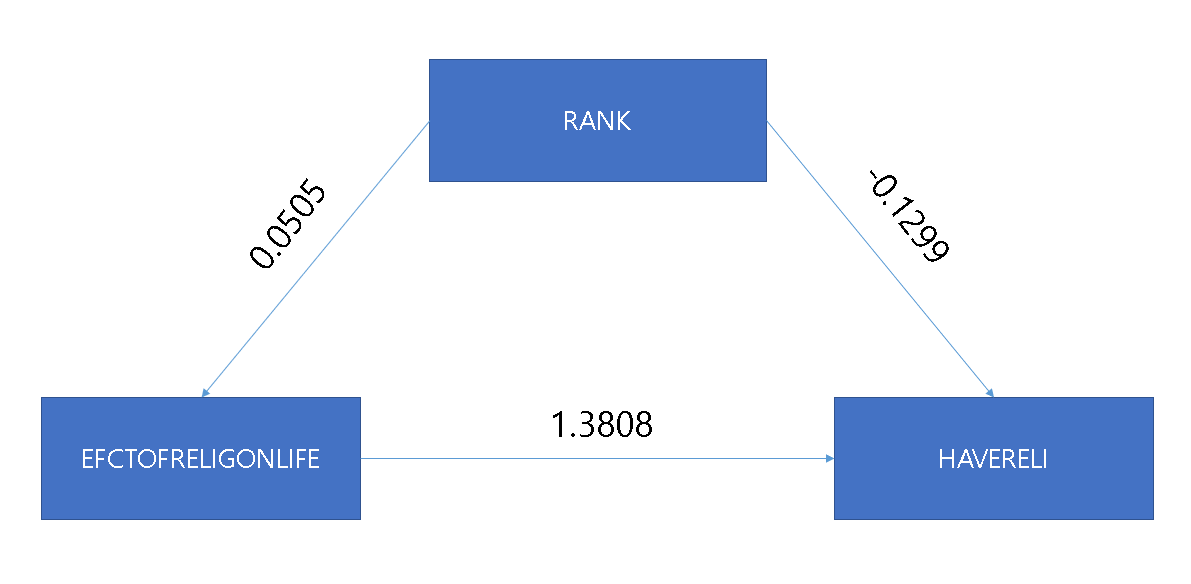
These trickle-down effects can be interpreted as follows The higher the income (class consciousness), the easier it is to recall or clearly recognize the opportunities that enabled one to advance to that class. In the process of seizing those opportunities, the individual will feel limited in their ability and effort, which is consistent with Table 15 and its interpretation. In order to overcome such limitations, you will look to a transcendent being. On the other hand, if you think your income is low, you will not recall opportunities that are closely related to success. Therefore, the mediation model as shown in <Figure 3> occurs, and it can be said that income (class consciousness) indirectly affects BELIEVENONEXIST.

Analyzing the relationship between religiosity (BELIEVENONEXIST, LIBARTYOFINDI) and income (INCOM0, RANK) in this way, we can say that income has a direct and indirect effect on religiosity. Therefore, we can reject Hypothesis 3, "There is no relationship between religiosity and income," and conclude that the higher the income, the more religious an individual is.

Since the Durbin-Watson test statistic (hereinafter DW statistic) of all regression models is more than 1.8, we can say that there is no correlation between the dependent variables. Also, according to <Figure 2>, the residuals follow a normal distribution, so the data are independent of each other. Also, according to <Table 14>, the correlation coefficient between the dependent variables is more than 0.2. Due to this, the results of the multivariate regression (MR) model that considers the dependent variables simultaneously may be different from the existing ones. To check this, we performed an analysis using MR model in R language. Although the results are not presented in the paper, it can be seen that the results of the MR model are consistent with the existing ones. Therefore, <Tables 15-18> can be said to be valid.

<Table 19 shows the results of the logistic regression analysis of religiosity, and in Model 1, only the regression coefficient of satisfaction with income (SATFIN) is statistically significant. However, in Model 2, the regression coefficient of SATFIN is no longer significant, while the regression coefficient of RANK becomes significant. This is due to the simultaneous inclusion of RANK, SATFIN, and INCOM0 as independent variables. Logistic regression analysis implies that the standard deviation of the coefficient is small, and the standard deviation is proportional to the correlation coefficient between the independent variables. According to <Table 14>, the correlation coefficients between RANK and SATFIN and RANK and INCOM0 are about 0.3935 and 0.1725, respectively. Their sum is more than 0.5, which does not cause multicollinearity in a normal regression. However, using all three variables makes the variance of the regression coefficient not small, which is not appropriate for logistic regression. Therefore, SATFIN and INCOM0 should be excluded.

Based on the above discussion, we perform a logistic regression analysis on religious affiliation (HAVERELI), and the results are shown in <Table 22>. In Model 1, the regression coefficient of RANK is not statistically significant, but in Model 2, the coefficient becomes significant. This is because, as before, EFCTOFRELIGONLIFE is a parameter for RANK and HAVERELI. In Model 2, the regression coefficients of RANK and EFCTOFRELIGONLIFE are -0.1299 and 1.3808, respectively, and both are statistically significant. In Table 20, the regression coefficient between the independent variables is 0.0505. Based on this, we can calculate -0.1299+(1.3808\*0.0505)=-0.06384, which is about 0.013 smaller than -0.0503. -0.0503 is the regression coefficient of RANK in Model 1 of Table 22, and the error is due to computer math. Therefore, it can be said that the regression model of EFCTOFRELIGONLIFE for RANK and HAVERELI is valid, and the model shown in <Figure 4> can be set up.

<Figure 4: Parametric model of EFCTOFRELIGONLIFE for RANK and HAVERELI> <Figure 5: Parametric model of EFCTOFRELIGONLIFE for RANK and HAVERELI

The reason for this mediating effect is similar to the explanation in Figure 3: the higher the perceived income, the easier it is to recall or clearly recognize the opportunities associated with success. However, the latter is beyond the individual's control, so he or she will seek to overcome the influence of external factors (luck) through religion, which can be seen as a projection of the individual's desires onto religion. Therefore, the influence of income (class consciousness) and religion is proportional, and the latter is proportional to the probability of having religion.

For the above reasons, we cannot reject Hypothesis 2, "The lower the income, the higher the probability of not having a religion." Controlling for EFCTOFRELIGONLIFE, HAVERELI and RANK have a statistically significant inverse relationship. However, EFCTOFRELIGONLIFE is a parameter and should not be controlled for. When a parameter exists, the independent variable has an indirect effect on the dependent variable through that variable. Therefore, we cannot reject Hypothesis 2 because income has an indirect effect on the probability of being religious.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RANK | SATFIN | INCOM0 | PARTICIRELIGIONPAST | LOTR2 | ROCOGLUCK | EXPECTFUTURE | EFCTOFRELIGONLIFE | possibilityofexpectfuture | HAVECHRM | RELIGIONOFKOREA | RELGSTY2 | RELGSTY3 | LIBARTYOFINDI | BELIEVENONEXIST | regularactrelation | irregularactrelation |  |
| 1 | 0.394 | 0.173 | 0.013 | 0.047 | 0.174 | -0.1 | 0.096 | -0.02 | 0.055 | 0.013 | 0.078 | 0.058 | -0.09 | -0 | 0.044 | 0.083 | RANK |
| 0.3935 | 1 | 0.1105 | -0.0345 | 0.1516 | 0.1633 | -0.0806 | 0.059 | -0.0393 | 0.0469 | 0.0206 | 0.0042 | 0.0977 | -0.0634 | 0.0512 | 0.0683 | 0.0776 | SATFIN |
| 0.1726 | 0.1105 | 1 | 0.0562 | -0.0797 | 0.0828 | -0.0622 | 0.0261 | 0.0226 | 0.1071 | -0.0019 | 0.0447 | 0.0402 | -0.1057 | -0.0157 | -0.0206 | -0.0173 | INCOM0 |
| 0.0127 | -0.0345 | 0.0562 | 1 | 0.0428 | 0.0467 | -0.0581 | 0.2749 | -0.0312 | 0.0341 | -0.0189 | 0.0586 | 0.1727 | 0.1459 | 0.3744 | 0.3552 | 0.3332 | PARTICIRELIGIONPAST |
| 0.047 | 0.152 | -0.08 | 0.043 | 1 | 0.147 | -0.11 | 0.025 | -0.11 | -0.03 | 0.047 | 0.049 | 0.087 | 0.037 | 0.162 | 0.18 | 0.118 | LOTR2 |
| 0.1741 | 0.1633 | 0.0828 | 0.0467 | 0.1468 | 1 | -0.1209 | 0.1378 | 0.0097 | 0.0286 | 0.0255 | 0.0612 | 0.0985 | -0.1382 | 0.1384 | 0.0721 | 0.0555 | ROCOGLUCK |
| -0.0967 | -0.0806 | -0.0622 | -0.0581 | -0.1126 | -0.1209 | 1 | -0.1117 | -0.0194 | -0.0101 | -0.0116 | -0.1321 | -0.1126 | 0.0961 | -0.0633 | -0.0805 | -0.1306 | EXPECTFUTURE |
| 0.0957 | 0.059 | 0.0261 | 0.2749 | 0.0249 | 0.1378 | -0.1117 | 1 | 0.0174 | 0.0511 | 0.132 | 0.1023 | 0.3526 | 0.1848 | 0.5462 | 0.5553 | 0.4934 | EFCTOFRELIGONLIFE |
| -0.0232 | -0.0393 | 0.0226 | -0.0312 | -0.1103 | 0.0097 | -0.0194 | 0.0174 | 1 | 0.1665 | 0.4428 | 0.0547 | 0.0104 | 0.0177 | -0.0011 | -0.1785 | -0.0273 | possibilityofexpectfuture |
| 0.055 | 0.0469 | 0.1071 | 0.0341 | -0.031 | 0.0286 | -0.0101 | 0.0511 | 0.1665 | 1 | 0.2121 | 0.0242 | 0.0406 | -0.0097 | 0.0022 | -0.0438 | 0.0925 | HAVECHRM |
| 0.0128 | 0.0206 | -0.0019 | -0.0189 | 0.0467 | 0.0255 | -0.0116 | 0.132 | 0.4428 | 0.2121 | 1 | 0.0213 | 0.1012 | 0.1418 | 0.1451 | 0.001 | 0.1328 | RELIGIONOFKOREA |
| 0.0777 | 0.0042 | 0.0447 | 0.0586 | 0.0486 | 0.0612 | -0.1321 | 0.1023 | 0.0547 | 0.0242 | 0.0213 | 1 | 0.3702 | -0.0037 | 0.1265 | 0.1093 | 0.1603 | RELGSTY2 |
| 0.0583 | 0.0977 | 0.0402 | 0.1727 | 0.0873 | 0.0985 | -0.1126 | 0.3526 | 0.0104 | 0.0406 | 0.1012 | 0.3702 | 1 | 0.1089 | 0.4098 | 0.3785 | 0.309 | RELGSTY3 |
| -0.088 | -0.0634 | -0.1057 | 0.1459 | 0.0366 | -0.1382 | 0.0961 | 0.1848 | 0.0177 | -0.0097 | 0.1418 | -0.0037 | 0.1089 | 1 | 0.3535 | 0.2837 | 0.2052 | LIBARTYOFINDI |
| -0.0014 | 0.0512 | -0.0157 | 0.3744 | 0.1616 | 0.1384 | -0.0633 | 0.5462 | -0.0011 | 0.0022 | 0.1451 | 0.1265 | 0.4098 | 0.3535 | 1 | 0.7891 | 0.5765 | BELIEVENONEXIST |
| 0.0437 | 0.0683 | -0.0206 | 0.3552 | 0.1795 | 0.0721 | -0.0805 | 0.5553 | -0.1785 | -0.0438 | 0.001 | 0.1093 | 0.3785 | 0.2837 | 0.7891 | 1 | 0.6884 | regularactrelation |
| 0.0832 | 0.0776 | -0.0173 | 0.3332 | 0.1179 | 0.0555 | -0.1306 | 0.4934 | -0.0273 | 0.0925 | 0.1328 | 0.1603 | 0.309 | 0.2052 | 0.5765 | 0.6884 | 1 | irregularactrelation |

<Table 14: Correlation matrix between variables

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 模型1 |  |  | 模型2 |  |  | 模型3 |  |  |  |
|  | Coefficients | Standard deviation | P-value | Coefficients | Standard deviation | P-value | Coefficients | Standard deviation | P-value | LIBARTYOFINDI  （dependent variable) |
|  | 1.1704\*\*\* | 0.091 | 0 | 0.7728\*\*\* | 0.156 | 0 | 0.6174\*\*\* | 0.182 | 0.001 | intercept |
|  | -0.0298 | 0.021 | 0.159 | -0.029 | 0.02 | 0.156 | -0.0252 | 0.02 | 0.22 | RANK |
|  | -0.0223 | 0.032 | 0.489 | -0.0133 | 0.031 | 0.669 | -0.0175 | 0.032 | 0.579 | SATFIN |
|  | -0.0000807 | 0.0000349 | 0.021 | -0.0000816 | 3.35E-05 | 0.015 | -0.0000703 | 3.38E-05 | 0.038 | INCOM0 |
|  |  |  |  | 0.1407\*\*\* | 0.039 | 0 | 0.1471\*\*\* | 0.04 | 0 | EFCTOFRELIGONLIFE |
|  |  |  |  | 0.1283\*\*\* | 0.039 | 0.001 | 0.1461\*\*\* | 0.045 | 0.001 | RELIGIONOFKOREA |
|  |  |  |  | 0.0375 | 0.013 | 0.005 | 0.0377 | 0.013 | 0.005 | PARTICIRELIGIONPAST |
|  |  |  |  | -0.1724\*\*\* | 0.044 | 0 | -0.1681\*\*\* | 0.044 | 0 | ROCOGLUCK |
|  |  |  |  | 0.0443 | 0.037 | 0.238 | 0.0554 | 0.04 | 0.169 | RELGSTY3 |
|  |  |  |  |  |  |  | 0.0316 | 0.027 | 0.245 | LOTR2 |
|  |  |  |  |  |  |  | 0.1909 | 0.073 | 0.01 | EXPECTFUTURE |
|  |  |  |  |  |  |  | -0.0252 | 0.035 | 0.475 | possibilityofexpectfuture |
|  |  |  |  |  |  |  | -0.0651 | 0.086 | 0.449 | HAVECHRM |
|  |  |  |  |  |  |  | -0.0033 | 0.064 | 0.959 | SEX |
|  |  |  |  |  |  |  | -0.018 | 0.034 | 0.598 | RELGSTY2 |
| 1.858 | | | 1.882 | | | | 1.866 | | | Durbin-Watson: |
| 0.017 (0.012) | | | 0.104 (0.093) | | | | 0.118(0.098) | | | R-squared (modified R-squared) |  |  | R-squared (modified R-squared) |
| 1575(1593) | | | 1525(1565) | | | | 1527(1594) | | | AIC (BIC) |
| 3.694 (0.0118) | | | 9.261(0) | | | | 6.035(0) | | | F-test statistics  (P-value) |

<Table 15: GLS regression results for LIBARTYOFINDI, where \* means 0.05 significance level, \*\* means 0.01 significance level, and \*\*\* means 0.001 significance level

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 模型1 | | | 模型2 | | | 模型3 | | |  | | | |
| Coefficients | Standard deviation | P-value | | Coefficients | Standard deviation | P-value | Coefficients | Standard deviation | | P-value | BELIEVENONEXIST （Dependent Variable) |
| 1.4921\*\*\* | 0.119 | 0 | | -0.5147 | 0.164 | 0.002 | -0.6889\*\*\* | 0.188 | | 0 | intercept |
| -0.0143 | 0.027 | 0.601 | | -0.0415 | 0.021 | 0.05 | -0.0414 | 0.021 | | 0.052 | RANK |
| 0.0608 | 0.042 | 0.147 | | 0.0233 | 0.033 | 0.476 | 0.019 | 0.033 | | 0.562 | SATFIN |
| -2.11E-05 | 4.53E-05 | 0.641 | | -3.30E-05 | 3.49E-05 | 0.344 | -2.67E-05 | 3.51E-05 | | 0.448 | INCOM0 |
|  |  |  | | 0.4828\*\*\* | 0.04 | 0 | 0.4669\*\*\* | 0.041 | | 0 | EFCTOFRELIGONLIFE |
|  |  |  | | 0.099\*\*\* | 0.014 | 0 | 0.1003\*\*\* | 0.014 | | 0 | PARTICIRELIGIONPAST |
|  |  |  | | 0.0926 | 0.041 | 0.023 | 0.1139 | 0.046 | | 0.014 | RELIGIONOFKOREA |
|  |  |  | | 0.1052 | 0.028 | 0 | 0.097 | 0.028 | | 0.001 | LOTR2 |
|  |  |  | | -0.0102 | 0.035 | 0.773 | -0.0024 | 0.035 | | 0.947 | RELGSTY2 |
|  |  |  | | 0.2606\*\*\* | 0.042 | 0 | 0.2552\*\*\* | 0.042 | | 0 | RELGSTY3 |
|  |  |  | |  |  |  | 0.0742 | 0.046 | | 0.108 | ROCOGLUCK |
|  |  |  | |  |  |  | 0.0848 | 0.076 | | 0.266 | EXPECTFUTURE |
|  |  |  | |  |  |  | -0.0277 | 0.037 | | 0.45 | possibilityofexpectfuture |
|  |  |  | |  |  |  | -0.1102 | 0.089 | | 0.217 | HAVECHRM |
|  |  |  | |  |  |  | 0.1054 | 0.066 | | 0.113 | SEX |
| 1.974 | | | 1.966 | | | 1.952 | | | Durbin-Watson: | | | |
| 0.004(-0.001) |  |  | | 0.423 (0.415) |  |  | 0.43 (0.418) |  | |  | R-squared  (Modified R-squared) |
| 1914 (1932) | | | 1572(1517) | | | 1574 (1641) | | | AIC (BIC) | | | |
| 0.7546(0.52) | | | 51.98(0) | | | 34.16(0) | | | F-test statistic (p-value) | | | |

<Table 16: GLS regression results for BELIEVENONEXIST, where \* means 0.05 significance level, \*\* means 0.01 significance level, and \*\*\* means 0.001 significance level

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 模型1 | | | 模型2 | | | Model 3 | | |  |
| Coefficients | Standard deviation | P-value | Coefficients | Standard deviation | P-value | Coefficients | Standard deviation | P-value | regularactrelation  （dependent variable) |
| 1.7552＊＊＊＊ | 0.262 | 0 | -1.8704＊＊＊＊ | 0.394 | 0 | -0.6889＊＊＊＊ | 0.188 | 0 | intercept |
| 0.0346 | 0.061 | 0.567 | -0.0251 | 0.047 | 0.594 | -0.0414 | 0.021 | 0.052 | RANK |
| 0.1342 | 0.092 | 0.147 | 0.0481 | 0.073 | 0.509 | 0.019 | 0.033 | 0.562 | SATFIN |
| -7.94E-05 | 9.98E-05 | 0.427 | -9.37E-05 | 7.77E-05 | 0.229 | -2.67E-05 | 3.51E-05 | 0.448 | INCOM0 |
|  |  |  | 1.1816＊＊＊＊ | 0.09 | 0 | 0.4669＊＊＊＊ | 0.041 | 0 | EFCTOFRELIGONLIFE |
|  |  |  | 0.19＊＊＊＊ | 0.031 | 0 | 0.1003＊＊＊＊ | 0.014 | 0 | PARTICIRELIGIONPAST |
|  |  |  | -0.236＊＊ | 0.091 | 0.009 | 0.1139 | 0.046 | 0.014 | RELIGIONOFKOREA |
|  |  |  | 0.2849＊＊＊＊ | 0.062 | 0 | 0.097＊＊ | 0.028 | 0.001 | LOTR2 |
|  |  |  | 0.0694 | 0.169 | 0.681 | -0.0024 | 0.035 | 0.947 | RELGSTY2 |
|  |  |  | -0.0466 | 0.079 | 0.554 | 0.2552＊＊＊＊ | 0.042 | 0 | RELGSTY3 |
|  |  |  | 0.507＊＊＊＊ | 0.093 | 0 | 0.0742 | 0.046 | 0.108 | ROCOGLUCK |
|  |  |  |  |  |  | 0.0848 | 0.076 | 0.266 | EXPECTFUTURE |
|  |  |  |  |  |  | -0.0277 | 0.037 | 0.45 | possibilityofexpectfuture |
|  |  |  |  |  |  | -0.1102 | 0.089 | 0.217 | HAVECHRM |
|  |  |  |  |  |  | 0.1054 | 0.066 | 0.113 | SEX |
| 1.901 |  |  | 1.904 |  |  | 1.952 |  |  | Durbin-Watson: |
| 0.006(0.001) |  |  | 0.414 (0.405) |  |  | 0.43 (0.418) |  |  | R-squared  (Modified R-squared) |
| 2939(2957) |  |  | 2610 (2659) |  |  | 1574 (1641) |  |  | AIC (BIC) |
| 1.292 (0.276) |  |  | 45(0) |  |  | 34.16(0) |  |  | F-test statistics  (P-value) |

<Table 17: Regression results for REGULARACTRELIGION，\* means significance level 0.05, \*\* means significance level 0.01, \*\*\* means significance level 0.001

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 模型1 | | | 模型2 | | | 模型3 | | |  |
| Coefficients | Standard deviation | P-value | Coefficients | Standard deviation | P-value | Coefficients | Standard deviation | P-value | IRREGULARACTRELIGION (dependent variable) |
| 0.3931＊＊＊＊ | 0.072 | 0 | -0.529＊＊＊＊ | 0.107 | 0 | -0.4863＊＊＊＊ | 0.124 | 0 | const |
| 0.0261 | 0.017 | 0.117 | 0.0085 | 0.014 | 0.541 | 0.009 | 0.014 | 0.521 | RANK |
| 0.0327 | 0.025 | 0.199 | 0.0213 | 0.022 | 0.324 | 0.0206 | 0.022 | 0.338 | SATFIN |
| -2.41E-05 | 2.74E-05 | 0.379 | -3.27E-05 | 2.31E-05 | 0.157 | -3.51E-05 | 2.31E-05 | 0.129 | INCOM0 |
|  |  |  | 0.2852＊＊＊＊ | 0.026 | 0 | 0.2743＊＊＊＊ | 0.027 | 0 | EFCTOFRELIGONLIFE |
|  |  |  | 0.0542＊＊＊＊ | 0.009 | 0 | 0.055＊＊＊＊ | 0.009 | 0 | PARTICIRELIGIONPAST |
|  |  |  | 0.0408 | 0.018 | 0.027 | 0.0368 | 0.019 | 0.048 | LOTR2 |
|  |  |  | -0.0139 | 0.022 | 0.519 | -0.048 | 0.024 | 0.047 | possibilityofexpectfuture |
|  |  |  | 0.0451 | 0.023 | 0.053 | 0.0458 | 0.023 | 0.05 | RELGSTY2 |
|  |  |  | 0.0739＊＊ | 0.027 | 0.007 | 0.0671 | 0.027 | 0.015 | RELGSTY3 |
|  |  |  |  |  |  | -0.0395 | 0.03 | 0.192 | ROCOGLUCK |
|  |  |  |  |  |  | -0.0761 | 0.05 | 0.13 | EXPECTFUTURE |
|  |  |  |  |  |  | 0.1045 | 0.059 | 0.075 | HAVECHRM |
|  |  |  |  |  |  | 0.0735 | 0.03 | 0.016 | RELIGIONOFKOREA |
|  |  |  |  |  |  | 0.0232 | 0.044 | 0.596 | SEX |
| 1.901 | | | 1.88 | | | 1.887 | | | Durbin-Watson: |
| 0.01(0.006) | | | 0.318 (0.308) | | | 0.333(0.318) | | | R-squared  (Modified R-squared) |
| 1265(1283) | | | 1036(1081) | | | 2587 (2654)  0.318 | | | AIC (BIC) |
| 2.276(0.07) | | | 33(0) | | | 22.59(0) | | | F-test statistics  (P-value) |

<Table 18: GLS regression results for IRREGULARACTRIGION, where \* means 0.05 significance level, \*\* means 0.01 significance level, and \*\*\* means 0.001 significance level

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 模型1 | | | 模型2 | | |
| HAVERELI | Coefficients | Standard  Deviation | P-value | Coefficients | Standard deviation | P-value |
| const | 0.1445 | 0.226 | 0.523 | -4.1903 | 0.632＊＊＊＊ | 0 |
| RANK | -0.0983 | 0.053 | 0.063 | -0.1955 | 0.068＊＊ | 0.004 |
| SATFIN | 0.1696 | 0.081 | 0.035 | 0.1741 | 0.102 | 0.087 |
| INCOM0 | 4.14E-05 | 9.33E-05 | 0.657 | 5.51E-05 | 9.85E-05 | 0.576 |
| PARTICIRELIGIONPAST |  |  |  | 0.259 | 0.045＊＊＊＊ | 0 |
| LOTR2 |  |  |  | 0.3006 | 0.087＊＊ | 0.001 |
| ROCOGLUCK |  |  |  | -0.1626 | 0.143 | 0.255 |
| EXPECTFUTURE |  |  |  | -0.1398 | 0.228 | 0.54 |
| EFCTOFRELIGONLIFE |  |  |  | 1.1403 | 0.154＊＊＊＊ | 0 |
| possibilityofexpectfuture |  |  |  | -0.2666 | 0.115 | 0.02 |
| HAVECHRM |  |  |  | -0.0248 | 0.27 | 0.927 |
| RELIGIONOFKOREA |  |  |  | 0.5088 | 0.145＊＊＊＊ | 0 |
| SEX |  |  |  | 0.2231 | 0.2 | 0.265 |
| RELGSTY2 |  |  |  | -0.135 | 0.115 | 0.241 |
| RELGSTY3 |  |  |  | 0.5761 | 0.135＊＊＊＊ | 0 |
| Pseudo R-squared | 0.006603 |  |  | 0.28 |  |  |
| Log-likelihood | -444.57 |  |  | -322.23 |  |  |

<Table 19: Logistic regression results for religious affiliation (HAVERELI), where \* means 0.05 significance level, \*\* means 0.01 significance level, and \*\*\* means 0.001 significance level

|  |  |  |  |
| --- | --- | --- | --- |
|  | 模型1 | | |
| EFCTOFRELIGONLIFE (dependent variable) | Coefficients | Standard deviation | P-value |
| intercept | 1.271１＊＊＊＊ | 0.089 | 0 |
| RANK | 0.050５ | 0.021 | 0.015 |
| Durbin-Watson: | 1.981 |  |  |
| R-squared (modified R-squared) | 0.009 (0.008) |  |  |
| AIC (BIC) | 1667(1676) |  |  |
| F-test statistics  (P-value) | 5.965 (0.0149) |  |  |

<Table 20: GLS regression results for EFCTOFRELIGONLIF, where \* indicates a significance level of 0.05, \*\* indicates a significance level of 0.01, and \*\*\* indicates a significance level of 0.001>.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 模型1 | | | 模型2 | | |
| BELIEVENONEXIST | Coefficients | Standard deviation | P-value | Coefficients | Standard deviation | P-value |
| const | -0.7423\*\*\* | 0.207 | 0 | -0.7822\*\*\* | 0.183 | 0 |
| RANK | -0.0242 | 0.023 | 0.299 |  |  |  |
| SATFIN | 0.0161 | 0.036 | 0.653 | -0.0042 | 0.031 | 0.889 |
| INCOM0 | -3.16E-05 | 3.85E-05 | 0.412 | -3.49E-05 | 3.49E-05 | 0.317 |
| EFCTOFRELIGONLIFE |  |  |  | 0.4612 | 0.041 | 0 |
| PARTICIRELIGIONPAST | 0.1373\*\*\* | 0.015 | 0 | 0.1004 | 0.014 | 0 |
| RELIGIONOFKOREA | 0.1679\*\*\* | 0.05 | 0.001 | 0.1131 | 0.046 | 0.015 |
| LOTR2 | 0.0814 | 0.031 | 0.009 | 0.0981 | 0.028 | 0.001 |
| RELGSTY2 | -0.0133 | 0.039 | 0.732 | -0.0071 | 0.035 | 0.841 |
| RELGSTY3 | 0.3856\*\*\* | 0.044 | 0 | 0.2582 | 0.042 | 0 |
| ROCOGLUCK | 0.1249 | 0.05 | 0.013 | 0.0653 | 0.046 | 0.155 |
| EXPECTFUTURE | 0.0448 | 0.083 | 0.592 | 0.0921 | 0.076 | 0.228 |
| possibilityofexpectfuture | -0.0457 | 0.04 | 0.255 | -0.0261 | 0.037 | 0.477 |
| HAVECHRM | -0.0905 | 0.098 | 0.355 | -0.1136 | 0.089 | 0.204 |
| SEX | 0.2431 | 0.072 | 0.001 | 0.1137 | 0.066 | 0.087 |
| Durbin-Watson: | 1.967 |  |  | 1.937 |  |  |
| R-squared (modified R-squared) | 0.314  (0.3) |  |  | 0.427  (0.415) |  |  |
| AIC (BIC) | 1692  (1755) |  |  | 1575 (1638) |  |  |
| F-test statistic (P-value) | 22.32  (0) |  |  | 36.33(0) |  |  |

<Table 21: Regression results of removing EFCTOFRELIGONLIFE and RANK from Model 3 in Table 16, where \* indicates a significance level of 0.05, \*\* indicates a significance level of 0.01, and \*\*\* indicates a significance level of 0.001>.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 模型1 | | | 模型2 | | | | 模型3 | | | |  |
| Coefficients | Standard deviation | P-value | Coefficients | | Standard deviation | P-value | Coefficients | Standard deviation | P-value | HAVERELI | |
| 0.3432 | 0.206 | 0.096 | | -1.2781  \*\*\* Β | 0.275 | 0 | -4.19  \*\*\* Β | -4.0231 | 0 | intercept | |
| -0.0503 | 0.048 | 0.29 | | -0.1299  \* The | 0.054 | 0.02 | -0.2\* λ | -0.1436 | 0.018 | RANK | |
|  |  |  | | 1.3808\*\*\* | 0.137 | 0 |  | 1.1284\*\*\* | 0 | EFCTOFRELIGONLIFE | |
|  |  |  | |  |  |  |  | 0.511\*\*\* | 0 | RELIGIONOFKOREA | |
|  |  |  | |  |  |  |  | 0.3084\*\*\* | 0 | LOTR2 | |
|  |  |  | |  |  |  |  | -0.1439 | 0.206 | RELGSTY2 | |
|  |  |  | |  |  |  |  | 0.5859\*\*\* | 0 | RELGSTY3 | |
|  |  |  | |  |  |  |  | -0.1426 | 0.316 | ROCOGLUCK | |
|  |  |  | |  |  |  |  | -0.1464 | 0.52 | EXPECTFUTURE | |
|  |  |  | |  |  |  |  | -0.2689 | 0.019 | possibilityofexpectfuture | |
|  |  |  | |  |  |  |  | 0.0017 | 0.995 | HAVECHRM | |
|  |  |  | |  |  |  |  | 0.2236 | 0.261 | SEX | |
|  |  |  | |  |  |  |  | 0.2545\*\*\* | 0 | PARTICIRELIGIONPAST | |
| 0.001253 | | | | 0.1647 | | | 0.276 | | | Pseudo R-squared | |
| -446.96 | | | | -373.81 | | | -324 | | | Log-likelihood | |

<Table 22: Logistic regression of SATFIN, INCOM0 on religiosity (HAVERELI) in Table 20, where \* means significance level of 0.05, \*\* means significance level of 0.01, and \*\*\* means significance level of 0.001> <Table 23: Logistic regression of SATFIN, INCOM0 on religiosity (HAVERELI) in Table 20

6.Conclusion

To summarize the results of the analysis, first, higher income (real income) is associated with a greater awareness of the limits of personal control over life. Higher income (class consciousness) is also associated with a stronger perceived influence of religion on one's life, the latter of which increases the probability of being religious and the level of belief in a transcendent being. Taken together, there is a proportional relationship between "income and religiosity" and "income and the probability of being religious". There is no significant relationship between income and level of participation in religious activities.

This conclusion allows us to criticize Karl Marx's opinion on religion. He believed that religion made the masses less class-conscious and less questioning of reality. However, contrary to Marx's argument, this study shows that higher class awareness indirectly increases the likelihood of being religious and religiously affiliated. This suggests that the relationship between income and class consciousness and religiosity may vary.

7.Significance and limitations

This study is significant because it analyzes the relationship between religion and income. Income and class are important variables in sociology because few studies have analyzed their impact on religion and religiosity. However, there are a few problems with this study. For one thing, the sample consists of religious and non-religious people, so it doesn't take into account the type of religion. Considering the type of religion could be important, as Protestants pay more in tithing than people of other faiths. We also only took a small sample of the many different definitions of religiosity, so research should be conducted using other definitions of religiosity. Finally, some questions about religion were ambiguous and were not used in the analysis. An example of this is question 93 of the KGSS 2018 Type A, "How religious do you consider yourself to be?". We did not use this question because the perception of "religious" varies from person to person. Considering how to analyze ambiguous questions related to religion can provide a deeper understanding of the relationship between income and religiosity.

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