Religious and Non-religious Giving in Thailand:
An Economic Perspective

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ABSTRACT

Understanding religious and non-religious giving in Thailand will help us to comprehend the role of Buddhism on social reciprocity which is a necessary condition for policy recommendation to enhance the participatory development of Thai citizens. The study found that attending religious services on a regular basis does make people become more generous to both religious and non-religious contributions indicating the influence of Buddhism on socioeconomic development of Thailand. Highest educational achievement plays a major role on both money and time contributions. Education thus is a means not only to human capital formation but also to implanting the social reciprocal value to young generations. In addition, while government spending on religious boosts up the religious contributions, it in turn lessens the non-religious giving. But the level of an individual social capital significantly increases individual's time volunteers to both religious and non-religious organizations. Government hence may consider diverting some of their religious spending towards community-based social capital accumulation by financing community activities that could enhance the civic participations. Furthermore, policy makers should encourage people to follow news on a daily basis to make people become aware of social needs. The accuracy and reliability of social media thus have an indirect influence on social reciprocity.

Keywords: Money and time contribution, Religious and Nonreligious giving, Social Capital, Participatory development

1. Introduction

According to the 2005 survey of social and cultural participations in Thailand conducted by the National Statistics Office, about 50 millions of Thai citizens aged 15 years and older are Buddhists accounting to 95 percents of Thai population. Buddhism thus has a major influence on people from all walks of life in particular to their money and time contributions to charities. Understanding religious and non-religious giving behaviors will help us to comprehend the role of Buddhism on the social reciprocity in the Thai economy which is a necessary condition for policy recommendations to promote private voluntary contributions so as to enhance the participatory development of Thai citizens.

Study on the 'Economics of Philanthropy' was quite well known in most developed countries especially in the US where government has downsized the public sector and allowed Non-Governmental Organizations (NGOs) to provide public services which were financed both by private and public contributions. Charities in Thailand also provide a large number of public services including health and medical services, education, shelters for orphans and homeless elderly, environmental protection, sports programs, as well as religious services. As the higher education and medical services in Thailand are in the process of privatization, understanding individual giving and voluntary behaviors will be useful for charitable fundraising of NGOs which will play a key role on the economic development of Thailand in the near future.

Most of the studies on the voluntary provision of public goods based their conceptual frameworks on the classical paper of Bergstrom, Bloom, and, Varian (BBV) in 1986. Applying the game theoretical model, BBV (1986) explained that only those whose marginal benefit from the consumption of public goods exceeds their marginal cost of contribution will contribute a positive amount of their wealth to the provision of public goods, otherwise they will free ride. Further studies like Brown and Lankford (1992), Duncan (1999), and Apinunmahakul and Devlin (2004) extended BBV's model to examine the relationship between charitable giving and volunteering. But the basic idea remains the same that people give money (or time) to charities in order to increase the provision of public goods.

On the empirical side, studies on this issue at the early stage attempted to answer the question of whether or not the charitable donation should be tax exempt. Important studies like Feldstein and Taylor (1976), and Clotfelter (1980, and, 1985) indicated that with the tax price elasticity of giving greater than one in absolute term, while the income elasticity less than one implied that income tax exempt policy in US stimulated more gifts to private charities. More recent studies, however, focus not merely on the tax exempt issue, but on other factors that are likely to affect giving and voluntary simultaneously, for instance, the distinction between permanent and transitory income effect (Randolph, 1995), the crowding out effect of government contribution (Andreoni and Payne, 2003), the influence of an individual's social networks on private philanthropy (Apinunmahakul and Devlin, 2008), and so on.

This paper investigated both money and time contributions to religious and non-religious organizations in Thailand. It is thus the first study that examined the issue from a Buddhist setting. The study found that attending religious services on a regular basis does make people more generous to both religious and non-religious charities. Highest educational achievement also plays a major role on both money and time contributions. Education thus is a means not only to human capital formation but also to implanting the social reciprocal value to younger generations. In addition, while government spending on religious boosts up the religious contributions, it in turn lessens the non-religious giving. Government may consider diverting some of their religious spending towards community-based social capital accumulation by financing community activities that could enhance the civic participations. For the study found that the level of an individual social capital significantly increases time volunteers to both religious and non-religious organizations. Furthermore, policy makers should encourage people to follow news on daily basis as it makes people to become aware of social needs. The accuracy and reliability of social media thus have an indirect influence on social reciprocity.

The paper is organized as follows. Section two presents the empirical model, and section three reports the regression results. Conclusions are then made in section four.

2 Empirical Model

As mentioned before, the theoretical framework of this study is based on the voluntary provision of public goods model first introduced by BBV (1986). Considering a utility maximizing consumer who decides how to allocation his money and time resources in between his own consumption and leisure, and, money or time (or both) contribution to the provision of public goods.

At optimal, an individual's decision of how much money to give and how many hours to volunteer can be translated into the following empirical specification.

(1) $$Y_j = \alpha_{0j} + \alpha_{1j} taxprice + \alpha_{2j} income + \alpha_{3j} X + \alpha_{4j} govt + \alpha_{5j} temple + \alpha_{6j} soccap + \delta_j$$

Y_j refers to the amount of money giving or the frequency of times volunteer per month. For most of the respondents in the survey never recorded their hours volunteer but do recall the volunteering activities they participated each month. The variable 'Taxprice' equals to one minus the marginal tax rate whenever donation is tax exempt. For this study, however, the respondents were not willing to report their personal income, 'Taxprice' thus is a dummy variable equal to one if the respondent filled in the amount of money donation in the income tax form for the income tax reduction purpose, and zero otherwise. 'Income' refers to the respondent's household income, while 'X' refers to individual and household characteristics that might influence an individual demand for public goods, and consequently his contribution behavior. X is such as gender, marital status, highest level of education achievement, number of children in household, and so on.

'Govt' refers to the per capita government spending on religious. The purpose of this variable is to examine whether or not government spending will cause 'crowding out' effect to private contribution and to compare the result of this study with others like Roberts (1984), Kingma (1989), and, Duncun (1999). Most of the studies in US found that government spending in general crowds out giving to both religious and non-religious organizations. As a Buddhist economy, the results here might differ from those in the US.

Buddhist temples in Thailand may be classified broadly into two categories. Temples that were patronized by the royal families and those were not. Royal temples (or "Wat Luang" in Thai), in general are older and have some relations to the history of Thailand. Being a royal temple thus may influence an individual's decision when come to choose which temple to make a contribution. In addition, a distance from one own dwelling to the nearest temple may become an obstacle to religious contribution. 'Temple' in equation (1) hence consists of two explanatory variables. 'WATRANK" is a dummy variable equal to one if the temple that the respondent made his contributions is a royal temple, zero otherwise. "WATDISTANCE" is a distance in kilometer from the dwelling of the respondent to the nearest temple.

Furthermore, this study also include a host of social capital variables ('soccap' in equation 1) to analyze whether the level of an individual social capital has any influence on the individual's voluntary behavior, and whether the effect on the religious organizations differs from those of their non-religious counterpart. Social capital in this study made up of number of years in community (YRSCOMMU), number of clubs or associations that the respondent being members (CLUB), voting participation at the local (LOCALVOTE) and national (NATIONALVOTE) levels, whether the respondent following news regularly (DLYNEWS), and the frequency of times spent with one own family (FAMILY), relatives (RELATIVES), and neighbors (NEIGHBOR). Furthermore, the study also include a religious networks of an individual by asking whether the person attend the religious service on a monthly (MONTHWAT) or yearly (YEARWAT) basis, and whether the respondent does any devotional activity himself on monthly (MONTHDEVOTE) or yearly (YEARDEVOTE) basis. Details of all variables used in the regression analysis and their descriptive statistics are presented in the next section.

Notice that the two demand functions of giving are observable only when the amount of money donation or the frequency of times volunteer per month is greater than zero. Bivariate Tobit (BiTobit) thus is a suitable regression specification to estimate these two giving equations simultaneously, and then test the hypothesis whether the covariance across the two equations (the random error terms, δ in giving and volunteering specifications) is non-zero (Greene, 2000).

3. The Results

Data used in this study is a primary surveyed data which is a part of a research study on 'Economic of Religious' funded by the National Research Council of Thailand in 2011 to a research team at the National Institute of Development Administration (NIDA) to explore the impact of Buddhism on the Thai economy. Although the sample consists of 2,671 observations, after excluding those who do not answer the questions interested in this study, 2,557 observations were left for analysis.

Table 1 summarized the descriptive statistics of the sample. The explanatory variables were categorized into three categories of personal and household characteristics, the level of an individual social capital, the characteristics of Buddhist temples and government policies, respectively.

From table 1, there were more females (59 percent) than males (41 percents) in the sample. Most of the respondents (65 percents) were married and still live with their spouse. The average respondent is 46 years old living in a household with 4 persons but has less than one child (aged 18 years and below) per family. The data thus is consistent with the demographic structure of Thailand which has become older.

Most of the respondents lived in rural area (60 percent). 46 percent of the sample resides in a large province with populations over a million. 37 percent of the sample has less than primary education. An average household earned 24,041 Thai Baht a month but a wide range of the standard deviation reflects the disparity in income distribution.

This study used times spent with family and friends, as well as participations in civic activities as proxies for the level of an individual social capital. From Table 1, 41 percent of the sample spent time with their family for at least once a month. Half of the sample reported that they met with their relatives few times a year. 58 percent of the sample had their own house, and on average, lived in the community for 32 years. About one-fourth of the sample participated in the community activities every month, while about two-third participated few times a year. However, majority of people followed news daily (88 percent), voted in both the local (88 percent), and national (87 percent) elections.

For the religious based social capital, 52 percent of the sample attended the religious service (not a funeral or a religious ceremony) for at least once a month. And 59 percent reported that they had self-devotion at home either by prayers, meditations, studying religious materials themselves, and/or watching religious programs.

In 2011, Thai government spent 3,878.5 million Thai Baht on religious activities equivalent to 43.57 Baht per person. In addition, the number of population per monk of each province was included to examine the influence of religious on individual voluntary behavior in particular on the religious contribution. The survey found an approximate of 247 people per monk.

In general, people prefer to contribute money more than time. The average respondent gave more than twice to the religious organizations (2,885 Baht a year) than to the non-religious organizations (1,112 Baht a year), but the total amount of giving was merely 1.4 percent of household income ({2,885+1,112}/{24,041 x 12}). Only 1.3 percent of the sample applied their money donation for the income tax reduction purpose. The respondent on average volunteered for both religious and non-religious charities few times a year.

Table 2 presents the regression results of the Bivariate Tobit model. Notice that those who were married and still lived with their spouse make more donation than those with other marital status like single, widows, or divorce. A married donor gives 490 Baht (2885*0.17) more to the religious organizations and donates another 322.5 Baht more (1112*0.29) to the non-religious organization as compared to those with other marital status. Household income is an important factor that determines giving. The study found that money donation is a normal good for Thai citizens. As household income increases by one percent, the amount of giving to religious and non-religious organization increases by 0.24% and 0.32% respectively. The results are consistent with the assumption made in BBV (1986) and the empirical findings of Feldstein and Taylor (1976), and Clotfelter (1980, 1985).

Highest education achievement is another important determinant of voluntary contribution. For the religious contribution, those with the lower secondary education give 0.32% more than those with no education, while those with higher education and upper secondary give 0.30% and 0.26% respectively more than those with no education. For the non-religious contribution, the amount of giving increases with the level of education. For people with upper secondary, diploma, and bachelor degree (or higher) give 0.56%, 0.60%, and 0.73% respectively more than those with no education. Higher education may help people to become more aware of social problems, thus is willing to help out those in needs. Education hence is a tool to establish a mindset of social awareness to younger generations.

Almost all social capital variables are statistically significant in explaining volunteering behaviors to both the religious and non-religious organizations. Social capital thus can be a means to support participatory development of general public.

Attending religious service once a month also makes people become generous. Those who attend the religious service monthly contribute money and time to religious organizations 0.39% and 0.76% respectively more than those who do not attend the religious service on monthly basis. They also contribute more money (0.27%) and more time (0.51%) to the non-religious organizations than those who do not attend the religious service on monthly basis.

Following news also help people to be more aware of social needs. Those who follow news daily contribute more time to both the religious (0.32%) and non-religious (0.59%) organizations than their counterpart who did not follow news.

Government spending on religious causes both crowding-in and crowding-out effects. As government spending increases by 1%, money contribution to religious charities increases by 0.58% but to the non-religious charities declines by 1.3%. Nonetheless, the tax-price of giving does not have any influence on giving in Thailand. This may due to the fact that very few people applied their money donations for the income tax reduction.

4. Concluding Remarks

Buddhism is the national religious of Thailand since there was the country. The philosophy and teaching of Buddhism thus have a significant influence on the ways of life of people in this country particularly on their voluntary contribution. Understanding religious and non-religious giving in Thailand will help us to comprehend the role of Buddhism on the social reciprocity in the country which is a necessary condition for any policy recommendation to promote private voluntary contributions so as to enhance the participatory development of Thai citizens.

The study found that attending religious services on a regular basis does make people become more generous to both religious and non-religious charities. Highest educational achievement also plays a major role on both money and time contributions. Education thus is a means not only to human capital formation but also to implanting the social reciprocal value to younger generations. In addition, while government spending on religious boosts up the religious contributions, it in turn lessens the non-religious giving. Government may consider diverting some of their religious spending towards community-based social capital accumulation by financing community activities that could enhance the civic participations. For the study found that the level of an individual social capital significantly increases time volunteers to both religious and non-religious organizations. Furthermore, policy makers should encourage people to follow news on daily basis as it makes people to become aware of social needs. The accuracy and reliability of social media thus have an indirect influence on social reciprocity.

References

Apinunmahakul, A., & Devlin, R. A. (2004), Charitable Giving and Charitable Gambling: An Empirical Investigation, *National Tax Journal*, Vol. 57, No. 1.

Apinunmahakul, A., & Devlin, R. A. (2008), Social Networks and Private Philanthropy, *Journal of Public Economics,* Vol. 92, No. 1-2. doi: 10.1016/j.jpubeco.2007.07.005, http://dx.doi.org/10.1016/j.jpubeco.2007.07.005

Bergstrom, T. C., et al. (1986), On the Private Provision of Public Goods, *Journal of Public Economics*, Vol.29, 25-49. doi: 10.1016/0047-2727(86)90024-1, http://dx.doi.org/10.1016/0047-2727(86)90024-1.

Brown, E., & Hamilton L. (1992), Gifts of Money and Gifts of Time, *Journal of Public Economics*, 47 No.3: 321-41. doi: 10.1016/0047-2727(92)90032-B, http://dx.doi.org/10.1016/0047-2727(92)90032-B.

Clofeter, C. T. (1980), Tax Incentive and Charitable Giving: Evidence from a Panel of Taxpayers, *Empirical Economics*, Vol.13, No.3.

Clofeter, C. T. (1985), *Federal Tax Policy and Charitable Giving*, Chicago Press.

Duncan, B. (1999), Model Charitable Contributions of Time and Money, *Journal of Public Economics*, Vol. 72. doi: 10.1016/S0047-2727(98)00097-8, http://dx.doi.org/10.1016/S0047-2727(98)00097-8.

Feldstein, M, & Taylor, A. (1976), The Income Tax and Charitable Contributions, *Econometrica*, Vol.44(6). doi: 10.2307/1914255, http://dx.doi.org/10.2307/1914255.

Randolph, W. C. (1995), Dynamic Income, Progressive Taxes, and the Timing of Charitable Contribution, *Journal of Political Economy*, Vol.103(4). doi: 10.1086/262000, http://dx.doi.org/10.1086/262000.

Table 1: Data Descriptive

(a) Individual and household characteristics			
Variable	Description	Mean	SD
- MARRIED	Dummy variable equals to 1 if married and live with spouse 0 otherwise.	0.6504	0.4769
- MALE	Dummy variable equals 1 if male 0 otherwise	0.4138	0.4926
- HHINC	Household income (Baht per month) (in natural log)	24,041	19,933
- AGE	Respondent's age	45.5870	17.3860
- NOEDUC	Dummy variable equals 1 if has no or less than primary education 0 otherwise (**reference group**)	0.3723	0.4835
- PRIMARY	Dummy variable equals 1 if has primary education 0 otherwise	0.1103	0.3133
- SECONDAR	Dummy variable equals 1 if has lower secondary education 0 otherwise	0.1400	0.3471
- POSTSEC	Dummy variable equals 1 if has post secondary education 0 otherwise	0.1787	0.3832
- DIPLOMA	Dummy variable equals 1 if has a diploma degree 0 otherwise	0.0512	0.2205
- HIGHEDUC	Dummy variable equals 1 if has a higher education 0 otherwise	0.1474	0.3546
- HHMEM	Household members	4.181	1.7708
- CHILD18	Number of children less than 18 years old in household	0.8314	0.9883
- URBAN	Dummy variable equals 1 if living in urban area 0 otherwise.	0.4013	0.4902
- CITY	Dummy variable equals 1 if living in the city with more than 1 million populations 0 otherwise.	0.4603	0.4985
- BKK	Dummy variable equals 1 if living in Bangkok 0 otherwise (**reference group**)	0.0696	0.2545

- NORTH	Dummy variable equals 1 if living in the northern region 0 otherwise	0.1834	0.3871
- CENTRAL	Dummy variable equals 1 if living in the central region 0 otherwise.	0.3387	0.4734
- NORTHEAST	Dummy variable equals 1 if living in the northeast region 0 otherwise.	0,2104	0.4077
- SOUTH	Dummy variable equals 1 if living in the southern region 0 otherwise.	0.1979	0.3985

(b) Level of individual social capital			
- YRSCOMMU	Years in community	32.1987	20.6779
- OWNHOUSE	Dummy variable equals 1 if respondent owns the house 0 otherwise	0.5831	0.4931
- CLUB	Numbers of memberships in clubs or associations.	0.2566	0.5940
- LOCALVOTE	Dummy variable equals 1 if vote in the local election regularly 0 otherwise.	0.8811	0.3237
- NATIONVOTE	Dummy variable equals 1 if vote in the national election regularly 0 otherwise.	0.8713	0.3349
- DLYNEWS	Dummy variable equals 1 if follows news daily 0 otherwise.	0.8842	0.3200
-REG_NEIGHBOR	Dummy variable equals 1 if have activity with neighbor once a month 0 otherwise.	0.2382	0.4260
-SEL_NEIGHBOR	Dummy variable equals 1 if have activity with neighbor few times a year 0 otherwise	0.6652	0.4720
- NO_NEIGHBOR	Dummy variable equals 1 if have no activity with neighbor 0 otherwise. **(reference group)**	0.0966	0.2955
- REG_RELATIVE	Dummy variable equals 1 if meet relatives once a month 0 otherwise.	0.3047	0.4604
- SEL_RELATIVE	Dummy variable equals 1 if meet relatives few times a year 0 otherwise	0.4963	0.5000
- NO_RELATIVE	Dummy variable equals 1 if never meet with relative in the past year 0 otherwise. **(reference group)**	0.1991	0.3994
- REG_FAMILY	Dummy variable equals 1 if do activity with family once a month 0 otherwise.	0.4102	0.4920
- SEL_FAMILY	Dummy variable equals 1 if do activity with family few times a year 0 otherwise	0.3121	0.4634
- NO_FAMILY	Dummy variable equals 1 if never do activity with family in the past year 0 otherwise. **(reference group)**	0.2777	0.4479
MONTHDEVOTE	Dummy variable equals 1 if do self-devotion once a month 0 otherwise.	0.5897	0.4920
- YEARDEVOTE	Dummy variable equals 1 if do self-devotion few times a year 0 otherwise	0.0790	0.2698
- NODEVOTE	Dummy variable equals 1 if never do self-devotion in the past year 0 otherwise. **(reference group)**	0.3312	0.4708
- MONTHWAT	Dummy variable equals 1 if attend religious service once a month 0 otherwise.	0.5190	0.4997
- YEARWAT	Dummy variable equals 1 if attend religious service few times a year 0 otherwise	0.3011	0.4588
- NOWAT	Dummy variable equals 1 if never attend religious service in the past year 0 otherwise. **(reference group)**	0.3989	0.4898

(c) Characteristics of Buddhist temples and government policy			
- WATRANK	Dummy variable equals 1 if royal patronized temple, 0 otherwise	0.0301	0.1709
WATDISTANCE	Distance from home to nearest temple (in kilometers)	0.8608	1.2746
- LNGOVT	Government spending on religious per capita (by province) (in natural log)	3.4858	0.4038
- LNMONK	Number of population per monk (by province) (in natural log)	5.4362	0.3393
- TAXREFUND	Dummy variable equals 1 if respondent apply money donation for income tax reduction 0 otherwise.	0.0133	0.1147
WATCASH	Amount of money giving to Buddhist organizations.	2,884.49	10,331.40
- NONWATCASH		1,112.07	2,425.89
- WATVOLUNTEER	Amount of money giving to non-religious organizations	2.1533	2.4094
NONWATVOLUNTEER	Frequency of time volunteer to Buddhist organizations ranging from 1-7, in which 7 refers to daily, 6 refers to weekly, 5 refers to few times a month, 4 refers to once a month, 3 refers to few times a year, 2 refers once a year, 1 refers to never do volunteer. Frequency of time volunteer to non-religious organizations ranging from 1-7, in which 7 refers to daily, 6 refers to weekly, 5 refers to few times a month, 4 refers to once a month, 3 refers to few times a year, 2 refers once a year, 1 refers to never do volunteer.	1.4286	2.2535

Table 2: Bivariate Tobit results of money and time contribution to religious and non-religious organizations.
(a) Individual and household characteristics

Variables	Money contribute to Religious	Z-Stat	Time Contribute to Religious	Z-Stat	Money Contribute to Non-Religious	Z-Stat	Time Contribute to Non-Religious	Z-Stat
Constant	0.1242	0.1550	-2.1910**	-2.3370	10.7627**	6.1170	-6.5467**	-4.2660
MARRIED	0.1742**	2.7680	0.1568**	2.2610	0.2874**	2.3790	-0.0633	-0.5900
MALE	0.0180	0.3330	0.0840	1.4100	-0.1820*	-1.7050	-0.0715	-0.7850
LNHHINC	0.2442**	6.1980	0.0698	1.5210	0.3211**	4.1400	0.0229	0.3400
LNAGE	0.6584**	6.5580	0.2114**	1.9600	0.4058**	2.1300	-0.0695	-0.4110
PRIMARY	0.2001**	1.8010	-0.0798	-0.7300	0.2436	1.3470	0.2377	1.4700
SECONDAR	0.3235**	3.2690	0.0000	0.0000	0.2782	1.5210	0.2494	1.5610
POSTSEC	0.2579**	2.6560	-0.0954	-0.9520	0.5633**	3.1100	0.6646**	4.0320
DIPLOMA	0.1784	1.5630	-0.2082	-1.4230	0.6047**	2.1640	0.3851*	1.6740
HIGHEDUC	0.2964**	3.1980	-0.0986	-0.9090	0.7339**	3.5650	0.5172**	3.1280
HHMEM	-0.0135	-0.6510	0.0222	1.0190	0.0032	0.0790	0.0816**	2.3950
CHILD18	-0.0186	-0.5500	0.0220	0.5890	0.1051	1.5170	-0.0531	-0.9690
URBAN	-0.0684	-1.1830	-0.1926**	-2.9210	0.2233*	1.9530	-0.2439**	-2.4230
CITY	0.0496	0.8590	0.2847**	4.2820	0.0899	0.6840	0.1350	1.4410

Note: ** 95% level of significance; * 90% level of significance.

(b) Level of individual social capital

Variables	Money contribute to Religious	Z-Stat	Time Contribute to Religious	Z-Stat	Money Contribute to Non-Religious	Z-Stat	Time Contribute to Non-Religious	Z-Stat
YRSCOMMU	0.0043**	2.5220	0.0023	1.2270	0.0058*	1.8740	0.0042	1.4700
OWNHOUSE	0.1995**	3.2440	0.1228*	1.8060	-0.0101	-0.0810	0.1488	1.4460
CLUB	0.2260**	5.4640	0.2559**	5.5240	0.4787**	4.0060	0.6022**	9.4310
LOCALVOTE	0.1754	1.1930	-0.1156	-0.5900	0.1925	0.6080	-0.3105	-1.0010
NATIONVOTE	0.3483**	2.2660	0.3614*	1.9030	0.2011	0.6440	0.5516*	1.8310
DLYNEWS	0.0167	0.1900	0.3219**	3.3760	0.0518	0.3280	0.5932**	3.7270
REG_NEIGHBOR	0.0769	0.8090	0.2471**	2.0590	0.1510	0.7750	0.3155*	1.6470
SEL_NEIGHBOR	-0.1660**	-2.0850	0.4938**	4.3510	-0.2423	-1.4050	0.2482	1.4240
REG_RELATIVE	0.1372	1.5240	0.1780*	1.7820	0.5338**	2.8690	0.4020**	2.5670
SEL_RELATIVE	0.0086	0.1050	0.2225**	2.4390	0.1858	1.1660	-0.0073	-0.0530
REG_FAMILY	0.1686**	1.9610	0.5205**	5.3600	0.0932	0.5380	0.3312**	2.3260
SEL_FAMILY	0.2999**	3.7230	0.1526*	1.7920	0.2668*	1.7270	0.2271*	1.6920
MONTHDEVOTE	0.1194*	1.7430	0.0609	0.8230	0.1014	0.8190	-0.0491	-0.4360
YEARDEVOTE	-0.0291	-0.2170	-0.1004	-0.7800	-0.0887	-0.3790	0.4017*	1.9680
MONTHWAT	0.3917**	5.1220	0.7583**	7.7270	0.2734*	1.8540	0.5125**	3.7190
YEARWAT	0.3051**	4.0970	0.2628**	2.8630	0.2166	1.4160	0.0850	0.5960

Note: ** 95% level of significance; * 90% level of significance.

(c) Characteristics of Buddhist temples and government policy

Variables	Money contribute to Religious	Z-Stat	Time Contribute to Religious	Z-Stat	Money Contribute to Non-Religious	Z-Stat	Time Contribute to Non-Religious	Z-Stat
WATRANK	-0.0619	-0.3430	0.0127	0.0730	0.0329	0.1090	0.8206	2.5930
WATDISTANCE	-0.0195	-0.7770	-0.0249	-1.0840	0.0097	0.1740	-0.0292	-0.7480
LNGOVT	0.5837**	7.1470	-0.1368	-1.4150	-1.3145**	-8.6590	0.6724**	4.1360
LNMONK	0.1176	1.2420	-0.0293	-0.2620	-0.8353**	-3.4370	0.2407	1.4850
TAXREFUND	0.3660	1.5630	0.0460	0.1600	0.3334	0.7120	0.6172	1.4330
Rho(DonationWat, VolunteerWat)			0.1653**	6.489	Number of observations 2557 Log likelihood function -7260.066 Iterations completed 79			
Rho(DonationNonwat, VolunteerNonwat)			0.2794**	10.893	Number of observations 2557 Log likelihood function -8176.895 Iterations completed 80			

Note: ** 95% level of significance; * 90% level of significance.