# A Structural Equation Model for Spiritual Service Volunteer Labor Supply at Brahma Kumaris World Spiritual University

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The purpose of this cross-sectional research investigation was to construct a structural equation model applicable to the volunteer provision of spiritual service[**] by the Brahma Kumaris World Spiritual University (BKWSU) members in the Asia-Pacific region. Using the convenience sampling technique and applying selected inclusion criteria, the researchers gathered a sample population consisting of 159 BKWSU members domiciled in the Asia-Pacific region. The results revealed that upon making suitable adjustments, the model was found to be congruent with empirical data. The factors of religiosity, personality traits, motivation to volunteer and hours of paid work were found to account for 54 percent of the variance with respect to volunteering to perform spiritual service. The current study adds significantly to the body of knowledge on volunteering and suggests that religion can promote volunteering by fostering personality traits of agreeableness, conscientiousness, and extraversion in addition to the motivation to volunteer due to personal values, understanding, and religious motives. The results suggest that a better understanding of the religiosity, personality traits, and motivations of volunteer members result in the ability to better select and retain volunteer

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** Spiritual service is defined as any activity of the BKWSU, a religious organization, such as vegetarian cooking in the remembrance of God for others, computer and IT working, giving spiritual knowledge and empowering people in subject like positive living, building bridges between people of different religious faiths and cultures, etc.

members in the religious organization. In addition, governments may incentivize the employed people to undertake the volunteer work by minimizing the opportunity cost of time constraints due to their employment.

## Introduction

For more than a century, rational self-interest has exclusively populated the theoretical world of economics. However, recent economic research has been directed towards the preferences of individuals to include an element of other-regarding behavior (Tan, 2003). Volunteerism develops from two fundamental human inclinations: self-regarding inclination and other-regarding tendency (Story, 1992). Volunteering is the act of performing volunteer work. They are closely related and used interchangeably (Liu, Lo, Wu, & Hui, 2011). Volunteers are those who help others with no expectation of monetary rewards (Mowen & Sujan, 2005). Volunteers do their work in an organizational context; they do not work independently or in an isolated fashion (Chacón, Vecina, & Dávila, 2007).

Volunteer labor is essential to the output of the non-profit institutions (NPIs). For example in Thailand, the importance of NPIs from an economic perspective is evidenced by the size of NPI contribution to the GDP during 2006-2008, which was 0.8 percent of the country's GDP. The NPIs' contribution to the GDP in 2006 amounted to Baht 61,872 million. This figure increased to Baht 66,555 million in 2007 and Baht 72,111 million in 2008. When combining the value of volunteer work, the NPI's contribution to GDP represented the value of Baht 133,428 million, Baht 140,116 million, and Baht 149,161 million in 2006, 2007, and 2008, respectively. The overall contribution to GDP is averaged at 1.6 percent annually over the three year period, twice as high as that of 0.8 percent without the volunteer work estimate (Office of the National Economic and Social Development Board, 2010).

There were 65,457 NPIs in Thailand in 2006. Religious organizations are considered to be the most important organizations and account for 63.20 percent of total NPIs. The Brahma Kumaris Thailand, a religious organization, is one branch of the Brahma Kumaris

World Spiritual University (BKWSU). The BKWSU was chosen as a religious organization for this study because over the years, the BKWSU works for the establishment of peaceful and virtuous societies by imparting spiritual knowledge that empowers a person with inner powers, divine virtues, vision for the self and clarity in life. Moreover, over the years the BKWSU has gained international acceptance and recognition for its service to humanity. It is actively associated with the United Nations (UN) as an affiliated NGO. The UN has conferred the BKWSU with seven peace messenger awards. It also has consultative status with ECOSOC and UNICEF.

The BKWSU is a socio-spiritual educational institution established in Northwest India in the 1930s. It now has almost a million members who regularly attend classes at its 8,500 centres in over 130 countries. Through its branches spreading all over the world, the BKWSU is continuously involved in spiritual service to serve various sectors of society by volunteer members. This study endeavors to increase the understanding of the causal relationships of factors which influence the contribution of volunteer members to undertake volunteer work in the religious organization by focusing on the BKWSU as an example. With such increased knowledge, the BKWSU can enhance its volunteer management capacity and its ability to select and retain volunteer members.

The remainder of this article is structured as follows: the literature review and hypothesis development are first covered, then the methods are described, followed by the results, with a discussion of the implications, and finally the conclusion.

**Literature Review and Hypothesis Development**

There has been gradually growing interest in religion among economists because of a strong relationship of religiosity with individual's decision making (Azzi & Ehrenberg, 1975; Eswaran, 2011; Iannaccone, 1990). In recent years, there has been an increased emphasis on integrating personality traits into economics because personality traits can explain complexities of patterns of economic behavior (Ferguson, Heckman, & Corr, 2011). The Big Five or five-factor model, which is commonly labeled as agreeableness, conscientiousness, extraversion, neuroticism, and openness to experience, is the most widely used taxonomy of personality traits (Becker, Deckers, Dohmen, Falk, &

Kosse, 2012). Several studies have examined the positive correlation between religion and personality traits of agreeableness, conscientiousness, and extraversion (Alminhana & Moreira-Almeda, 2009; Khoynezhad, Rajaei, & Sarvarazemy, 2012). Thus, the definition of personality traits in this study is referred to agreeableness, conscientiousness, and extraversion. The following hypothesis is proposed.

*H1: Religiosity has a positive direct effect on personality traits of the BKWSU members.*

Arrow (1975) identified three motives for action that lead to seemingly altruistic behavior – pure altruism, egoism, and impure altruism. A pure altruist is motivated by the ultimate goal of increasing the welfare of others. An egoist is motivated by the ultimate goal of increasing the welfare of the self. An impure altruist is motivated by a mixture of increasing the welfare of others and the self. Many scholars contend that altruistic motive can occur simultaneously with egoistic motive, called "impure altruism" (Andreoni, 1990; Carpenter & Myers, 2010; Ferreira, Proença, & Proença, 2012). Thus this study posits that individuals are motivated to volunteer by "impure altruism".

In the impure altruism model presented by Andreoni (1990), it is assumed that there are one kind of private good and one kind of public good in an economy (in this case volunteering through the NPI is treated as a public good). Each individual $i$ is endowed with wealth, $w_i$ that can be spent either on a private good, $x_i$ or contributions towards a public good, $g_i$. An impure altruist is driven by a mixture of increasing the welfare of others and the self. When an individual is an impure altruist, his utility function is given by:

$$U_i = U_i(x_i, G, g_i) \tag{1}$$

subject to     $x_i + g_i = w_i$

$$G = G_{-i} + g_i$$

where G is the total amount of the public good in the economy, $G_{-i}$ is the sum of the contributions of all individuals except individual $i$. Under (1), apart from the utility of the private good, $x_i$, individual $i$ receives the utility both from the total amount of the public good, G and from his contribution, $g_i$.

Based on the empirical literature, value (altruism and humanitarian concern for others), understanding (desire to learn more about various matters), *enhancement* (interest in experiencing positive feelings), and protective (need to protect oneself and escape from

negative feelings such as loneliness) are functions of particular importance in predicting the undertaking of volunteer work (Carlo, Okun, Knight, & Guzman, 2005; Unger, 1991). These functions are part of the "Volunteer Functions Inventory", or VFI designed by Clary et al. (1998). Apart from the VFI, several researches added "*religious motive*" to measure motivation to volunteer (Clerkin & Swiss, 2013; Littlepage, Perry, Goff, & Brudney, 2005). In this study, in addition to the values, understanding, enhancement, and protective which are the functions from the VFI, the religious motive is employed because the VFI may be suitable for studying about the motivation of individuals in general NPIs. That is not sufficient in this research to explain motivation of individuals to volunteer in a religious organization. Based on the impure altruism as motivation to volunteer, the values function can be classified as altruistic motive, and understanding, enhancement, protective, and religious functions can be classified as egoistic motives. Previous studies (Graziano, Habashi, Sheese, & Tobin, 2007; Konovsky & Organ, 1996; LePine & Van, 2001) examined the association of personality traits and prosocial motivation[***] or motivation to volunteer. Therefore, the following hypotheses are proposed.

*H2: Personality traits have positive direct effects on the motivation to volunteer of the BKWSU members.*

*H3: Motivation to volunteer has a positive direct effect on the volunteering in spiritual service of the BKWSU members.*

Littlepage et al. (2005) illustrated that religiosity was correlated with values, understanding, and religious functions as the motivation to volunteer. Furthermore, based on hypothesis one (H1) and two (H2) indirect effect of religiosity on motivation to volunteer is developed. Thus, the following hypothesis is proposed.

*H4: Religiosity has a positive direct effect on the motivation to volunteer and a positive indirect effect on the motivation to volunteer through the personality traits of the BKWSU members.*

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[***] The desire to benefit others.

Many studies found that personality traits have direct positive effect on volunteering (Elshaug & Metzer, 2001; Heidari, Rad, & Ahari, 2011). Moreover, Carlo et al. (2005) found that personality traits of agreeableness and extraversion had both direct and indirect effects on volunteering; only in the case of indirect effect, it worked through values motive. Thus, the following hypothesis is proposed.

*H5: Personality traits have positive direct effects on volunteering in spiritual service and positive indirect effects on volunteering in spiritual service of the BKWSU members through motivation to volunteer.*

The positive relationship between religiosity and volunteering has been found in most of the literature (Littlepage et al., 2005; Ozorak, 2003). Moreover, based on all previous hypotheses (H1 to H5) the indirect effect of religiosity on volunteering is developed. Thus, the following hypothesis is proposed.

*H6: Religiosity has a positive direct effect on volunteering in spiritual service and a positive indirect effect on volunteering in spiritual service through the personality traits and motivation to volunteer of the BKWSU members.*

The empirical studies showed that there were considerable impacts of education on a wide variety of non-market benefits such as crime reduction, reducing reliance on welfare and other social programs, social cohesion, and charitable giving and volunteering (Wolfe & Haveman, 2001; Wolfe & Zuvekis, 1997). This study focuses on the effect of education on volunteering. Thus, the following hypothesis is proposed.

*H7: Education has a positive direct effect on volunteering in spiritual service of the BKWSU members.*

Hours of paid work can be explained as the economic concept of the opportunity cost. In this study, the opportunity cost is measured in terms of time constraints due to employment (Freeman, 1997; Lamb, 2011; Van Dijk & Boin, 1993). Therefore, the following hypothesis is proposed.

*H8: Hours of paid work have negative direct effects on volunteering in spiritual service of the BKWSU members.*
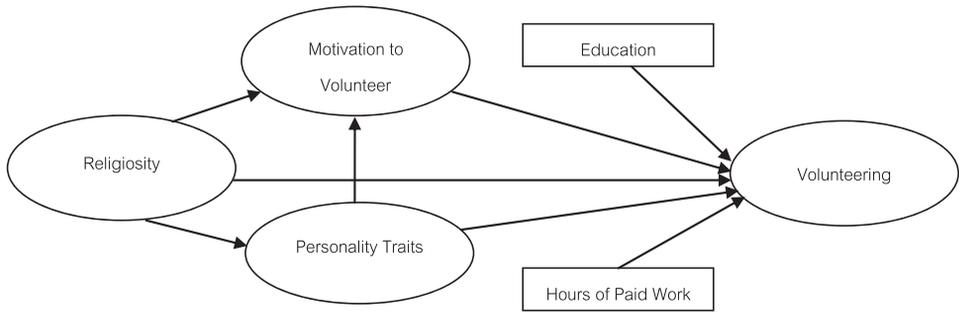
Figure1. Conceptual Framework for Hypothesis Development

Note.　⬭　represents latent variables or constructs

　　　　▭　represents observed variables

The conceptual framework for all of the hypotheses discussed above is represented in Figure 1. The variables in this study can be divided into *latent variables and observed variables. The latent variables* are variables that are not directly observed but are rather inferred from observed indicator variables. *Religiosity is an exogenous latent variable* that causes the fluctuation of other variables. *Volunteering, personality traits, and motivation to volunteer are endogenous latent variables* that are determined by variables within the model. Education and hours of paid work are observed exogenous variables which can be measured directly and cause the fluctuation of the variable volunteering. Thus, the structural equation modeling (SEM) is appropriate to test the relationships of all variables in the model of this study because it entails latent variables. The SEM also allows the researcher to hypothesize and test more complex relationships than those that can be tested through bivariate or multivariate linear regression (Bowman, 2009). Unlike the traditional linear model, a response variable in one regression equation in an SEM may appear as a predictor in another equation; indeed, variables in an SEM may influence one-another reciprocally, either directly or through other variables as intermediaries. This structural equation is meant to represent causal relationships among the variables in the model (Fox, 2002).

## Methods

*Data Source*

      The target population is volunteer members who work on a sustained basis for any centre of the BKWSU in the Asia-Pacific region except those who are the heads of the centres. There are no records kept of the BKWSU members who perform volunteer work at the BKWSU in the Asia-Pacific region. Therefore, a non-probability sampling technique was used for this study. According to Neuman (2006), a non-probability sampling technique may be used when population sizes are not exactly known. Then, participants in this study were selected by convenience sampling technique. The data collection was conducted between December 2012 and February 2013 via a web-based survey, a word document survey via e-mail, and a paper-based survey.

*Instrument*

      The participants were asked to give their demographic information and to respond to 32 items on the six variables for the survey instrument. These variables were: volunteering (4 items), religiosity (4 items), personality traits (12 items), motivation to volunteer (10 items), education (1 item), and hours of paid work (1 item). The lists of measures used in this study are shown in Appendix A.

*Data Analysis*

      The SEM was used for model and hypothesis testing following the two-stage approach. First, the measurement model indicates the relationships of the observed variables to the latent variables. The relationships between observed variables and latent variables are indicated by factor loadings. An acceptable threshold for factor loadings is 0.50 or above. Furthermore, internal consistency, convergent validity, and discriminant validity were performed to ensure data validity and reliability. Second, the structural model specifies the causal relations of the constructs to one another based on the hypotheses (Anderson & Gerbing, 1988). The overall fit of the measurement model and the structural model is evaluated by several measures of goodness of fit tests to assess the extent to which the data support the conceptual model. Goodness of fit (GOF) measures used in this study include the chi-square ($\chi^2$), relative chi-square $\left(\chi^2/df\right)$, goodness of fit index *(GFI)*,

adjusted goodness of fit index *(AGFI)*, root mean square error of approximation *(RMSEA)*, normed fit index *(NFI)*, and comparative fit index *(CFI)*. General rules of thumb for model fit are: the $\chi^2$ statistic is insignificant at a 0.05 threshold; the $\chi^2/df$ is less than 0.20; the value of *GFI, NFI*, and *CFI* indexes is above 0.90; the value of AGFI is above 0.80; and the RMSEA is not larger than 0.08 (Barrett, 2007; Bentler & Bonnett, 1980; Browne & Cudeck, 1993; Tabachnick & Fidell, 2007; Zikmund, 2003). To get reliable results in structural equation modeling, many researchers recommend the sample size of 100 to 150 participants (*e.g.*, Gorsuch, 1983; Hatcher, 1994; Kline, 1979). The sample size of this study is 159. Therefore, it is considered adequate for applying the SEM.

## Results

*Socio-demographic Characteristics*

A total of 159 BKWSU members in the Asia-Pacific region completed the survey. More than half of respondents lived in Thailand (50.94%), followed by Australia (22.01%); India, (17.61 %) and others, (9.44%).  Most respondents were female (69.81%). The sample was 18 to 82 years of age with a mean of 47.19 years. The majority of respondents were single (48.43%). Most of the sample had completed an undergraduate degree (37.74%). Most respondents were employed (65.41%). Most of the sample had volunteered for spiritual service for less than five years (35.85%). Respondents reported volunteered for a mean of 9.61 years. The sample volunteered   24 to 1,825 hours per year with a mean of 506.43 hours of spiritual service.

*Model Testing*

*Measurement Models*

There were four latent variables in this study: volunteering, religiosity, personality traits, and motivation to volunteer. Thus, four measurement models were revised based on an assessment of factor loading and a suggestion from modification indices. As shown in Appendix B, the final GOF results for measurement models satisfied the recommended level of acceptable fit. In addition, internal consistency, convergent validity, and discriminant validity were performed to ensure data validity and reliability. The results showed that all

constructs of the measurement models demonstrated adequate reliability and validity: (1) Cronbach's alpha and construct reliability exceeded the 0.70 threshold (see Appendix C); (2) the average variance extracted (AVE) values exceeded the cut-off of 0.5 (see Appendix C); and (3) the AVE values were greater than the shared variance (see Appendix D).

   *Structural Model*

   All variables were entered into a structural equation model based on the hypothesized model. Initially, the GOF of the hypothesized model showed inadequate fit to the sample data. The relationship between education and volunteering was not significant. Thus, the path from education to volunteering was dropped. Then, the hypothesized model was modified by freeing two parameters-modification indices together with theoretical and empirical reasoning. Upon making suitable adjustments, the model was found  to be congruent with empirical data ($\chi^2$ = 105.317, p-value = 0.145, ($\chi^2/df$ = 1.157, *GFI* = 0.929, *AGFI* = 0.893, *RMSEA* = 0.032, *NFI* = 0.933, *CFI* = 0.990).

   The influence effect of all variables in this model consists of three components: direct, indirect, and total effects. Standardized path coefficients with absolute values greater than 0.50 are considered to have 'large' effect, values between 0.30 and 0.50 'medium' effect, values between 0.20 and 0.30 'small' effect, and values less than 0.20 'weak' effect (Chin, 1998). The results of all influence effects on each variable are summarized in Table 1.

Table 1 Direct, Indirect, and Total Effects of Causal Variables on Affected Variables: The Modified Model

| Causal Variables | Affected Variables | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | PT | | | MO | | | VLUNT | | |
| | DE | IE | TE | DE | IE | TE | DE | IE | TE |
| RF | 0.48*** | – | 0.48*** | 0.23** | 0.31** | 0.54** | 0.26*** | 0.28*** | 0.54*** |
| PT | – | – | – | 0.65*** | – | 0.65*** | 0.28* | 0.18* | 0.46* |
| MO | – | – | – | – | – | – | 0.27* | – | 0.27* |
| HEMY | – | – | – | – | – | – | -0.14* | – | -0.14* |
| | $R^2$ = 0.23 | | | $R^2$ = 0.61 | | | $R^2$ = 0.54 | | |

Note.   * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

DE = Direct Effect, IE = Indirect Effect, TE = Total Effect ,VLUNT = Volunteering, RF = Religiosity, PT = Personality Traits, MO = Motivation to volunteer, HEMY = Hours of paid work

The results revealed that personality traits were medium, directly predicted by religiosity ($\beta$ = 0.48,  $p < 0.001$). Religiosity accounted for 23% of the variance in personality traits. Motivation to volunteer was positively related to religiosity and personality traits with a total effect of 0.54 and 0.65 respectively. These variables could explain the 61% variance in motivation to volunteer. Religiosity had a direct effect on motivation to volunteer and indirect effect on motivation to volunteer through personality traits ($\beta$= 0.23 and 0.31, $p < 0.01$). Volunteering was negatively related to hours of paid work and positively related to religiosity, personality traits, and motivation to volunteer, with the total effect as -0.14, 0.54, 0.46, and 0.27 respectively. These four variables may account for 54% of the variance in volunteering.

## Discussion

Based on the results of the modified model, most of the research hypotheses are supported. However, there is no significant positive direct relationship between education and volunteering (H7). The details are discussed as follows:

*Hypothesis One (H1)*

The result showed that religiosity had a significantly positive direct effect on personality traits of agreeableness, conscientiousness, and extraversion ($\beta$= 0.48, $p < 0.001$). This finding is consistent with the studies of Khoynezhad et al. (2012) and Saroglou (2002), who found that religiosity had a significant positive correlation with personality traits of agreeableness, conscientiousness, and extraversion. Based on the result of this hypothesis, it can be concluded that the religious doctrine can enhance the personality traits of agreeableness, conscientiousness, and extraversion in individuals.

*Hypothesis Two (H2)*

The result showed that personality traits of agreeableness, conscientiousness, and extraversion had a significant positive direct effect on the motivation to volunteer, which is impure altruism ($\beta$= 0.65, $p < 0.001$). The impure altruism in this study can be explained by personality traits expressions of values, understanding, and religious motives. This finding is consistent with the studies of Graziano et al. (2007) and LePine and Van (2001) who found

that agreeable individuals typically focused on relationships with other people, and thus tended to direct their prosocial motivation toward others. Konovsky and Organ (1996) found that conscientious individuals typically focused on being responsible and complying with rules, and thus tended to direct their prosocial motivation toward contributions that were more impersonal. In addition, Carlo et al. (2005) found that agreeableness and extraversion exhibited a correlation with values motive. Moreover, this finding showed that three personality traits were also correlated with understanding and religious motives, which had not been tested in previous studies. A possible explanation for this finding is that agreeable, conscientious, and extraverted individuals may be motivated by understanding (learning things) and religious motives with different reasons. Based on understanding motive, prior research suggested the links between personality traits and learning styles, especially the "activist" learning style which can be characterized as engaging in new experiences. People presenting this style had a significant correlation with agreeableness, conscientiousness, and extraversion (Bordbar, 2013). This means that these personality traits relate to understanding motive. Based on religious motive, agreeable individuals are more amenable to maintaining religious faith partly out of earnest desire to maintain a positive relationship with God. Conscientious individuals tend to be rule-oriented. Therefore, they might be more likely to stay faithful to religious faith (McCullough, Tsang, and Brion, 2003). Extraverts tend to recharge their cheerfulness and energy not only from other people but also from God. These facets are conceptually related to religious motive. Thus, it can be concluded that the higher the level of agreeableness, conscientiousness, and extraversion traits, the higher the level of values, understanding, and religious as motivations to volunteer.

*Hypothesis Three (H3)*

The result showed that motivation to volunteer had a significant positive direct effect on volunteering ($\beta= 0.27$, $p < 0.05$). This finding empirically confirms the assertion in the literature that motivation to volunteer, which is impure altruism, is correlated with volunteering. In terms of values, understanding, and religious motives that the relationship between values motive and volunteering has been noted in most of the literature (Carlo et al., 2005; Littlepage et al., 2005; Wong & Foo, 2011) and also  in this study. Therefore,

it can be concluded that the higher the level of the motivation to volunteer as expressed in terms of values, understanding, and religious, the higher the level of volunteering.

*Hypothesis Four (H4)*

The result showed that religiosity had a significantly positive direct effect on motivation to volunteer   ($\beta$= 0.23, *p* < 0.01). This result is consistent with previous findings (Ozorak, 2003; Littlepage et al., 2005; Eubanks, 2008). For example, Littlepage et al. (2005) illustrated that religiosity was correlated with values, understanding, and religious as the motivation to volunteer. Religiosity is, of course, correlated with religious motive, and also with values and understanding motives. The possible explanation for why religion can influence the motivation of individuals to volunteer in terms of values and understanding motives is that religious doctrine instills virtues of altruistic love and humanitarian concern for others. This correlates with values motive as well as learning the meaning of life by doing service or volunteer work which correlates with understanding motive. Thus, the more religious individuals are the more likely they are to be motivated to volunteer by religious, values, and understanding motives. The results also showed that religiosity had a significant positive indirect effect on motivation to volunteer through personality traits ($\beta$= 0.31, *p* < 0.01). It demonstrates that the personality traits variable is the intervening variable between religiosity and motivation to volunteer.

*Hypothesis Five (H5)*

The result showed that personality traits of agreeableness, conscientiousness, and extraversion had a significant positive direct effect on volunteering ($\beta$= 0.28, *p* < 0.05).This finding is supported by Elshaug & Metzer (2001) and Carlo et al. (2005), who demonstrated a positive effect of agreeableness and extraversion on volunteering. Heidari et al. (2011) found significant correlations between volunteering and personality traits of conscientiousness and extraversion. Moreover, Wilson and Workman (2011) and Zaskodna, Simek, and Mlcak (2013) also found that agreeableness, conscientiousness, and extraversion traits had a positive effect on volunteering. Theoretically, it is possible that agreeableness constitutes a dimension that includes a lot of socially and positively appreciated personality aspects like altruism and sympathy (Zaskodna et. al, 2003).

Extraversion comprises a cluster of qualities like energy, ambition, social intelligence and warmth (Watson & Clark, 1994). Conscientiousness includes having strong moral principles and being decisive, working hard to do well, to achieve and to accomplish things, and loving to work and to be challenged (Oldham & Morris, 1995). These qualities as evidenced by these personality traits are useful in any kind of volunteer work. The result also showed that personality traits of agreeableness, conscientiousness, and extraversion had a significant positive indirect effect on volunteering through motivation to volunteer ($\beta$= 0.18, $p < 0.05$). This finding is partially supported by Carlo et al. (2005) who found that personality traits of agreeableness and extraversion had a positive indirect effect on volunteering through values motive. Moreover, this finding showed that three personality traits had positive indirect effects on volunteering through not only values motive but also through understanding and religious motives, which had not been tested in previous studies. Thus, it can be concluded that motivation to volunteer in terms of values, understanding, and religious motives is the intervening variable between these personality traits and volunteering.

*Hypothesis Six (H6)*

The result showed that religiosity had a significant positive direct effect on volunteering ($\beta$= 0.26, $p < 0.001$). Most of the licensure notes the relationship between religiosity and volunteering, and this relationship is supported by this study. It is possible that religious doctrine teaches individuals to love or serve others and to give themselves to volunteer work. The result also showed that religiosity had a statistically significant, positive indirect effect on volunteering through personality traits and motivation to volunteer ($\beta$= 0.28, $p < 0.001$). It demonstrates that personality traits and motivation to volunteer are the intervening variables between religiosity and volunteering.

*Hypothesis Seven (H7)*

This result found that education did not have a significant positive direct effect on volunteering ($\beta$= -0.04, $p > 0.05$). It is interesting that education had an insignificant negative direct effect on volunteering instead of having a positive effect. This negative direct effect was in contrast to a number of studies (Hodgkinson & Weitzman, 1988; Wolfe & Haveman, 2001), but this result is in line with the economic explanation of volunteering

by Freeman (1997) who claimed that those with a high value of time, such as the higher educated or the employed faced higher opportunity cost and should be less likely to volunteer. Moreover, the result of this study is congruent with the study of Gibson (2001), finding that education did not have significant direct effect on volunteering. One plausible explanation for this is that general education is especially linked to competencies, such as verbal and written communication skills, and to self-confidence, which are useful for volunteering. However, there are many types of volunteer work in the BKWSU, some of which requires specific skills or knowledge gained from schooling, while some volunteer work does not. Therefore, individuals having any education level can do volunteer work. This means that differences in education among the BKWSU members do not cause differences in the level of volunteering.

*Hypothesis Eight (H8)*

The result showed that the hours of paid work had a significant negative direct effect on volunteering ($\beta$= -0.14, $p < 0.05$). It empirically confirms the economic theoretical notion that the opportunity cost measuring in terms of time constraint due to hours of paid work has a direct negative effect on volunteering. The study evidenced that individuals who do more paid work have a low level of volunteering in spiritual service. This finding is consistent with previous studies (Lamb, 2011; Van Dijk & Boin, 1993).

## Implications

*Implications for practice*

These findings have important implications for practitioners in terms of identifying and targeting those most likely to volunteer. Primarily, religiosity promotes volunteering by fostering personality traits of agreeableness, conscientiousness, and extraversion, as well as motivation to volunteer due to values, understanding, and religious motives. These results suggest that the organization should continually nature individual members' or newcomers' understanding of the BKWSU spiritual philosophy. According to the positive effect of personality traits of agreeableness, conscientiousness, and extraversion on volunteering, the organization is perhaps well advised to select new members who score

high on these traits to perform services in the organization. For the current members who score low on these traits, the organization can enhance these traits by nourishing the understanding of the BKWSU spiritual philosophy. Finally, motivation to volunteer which has a positive effect on volunteering as noted in this study is impure altruism due to values, understanding, and religious motives. Based on values motive, it indicates that individuals care about well-being not only for themselves but for the others as well. This result suggests that the organization may instill that aweless members' volunteering is important to the people whom the organization is trying to serve. Based on the understanding motive, the finding suggests that the organization should ask specifically what types of services individuals want to conduct. Providing training for less experienced volunteers can not only teach them what they need to know to benefit the organization, but also to improve personal efficacy. Based on the religious motive, it indicates that individuals place a high importance on faith in God and the spiritual philosophy of the BKWSU. This result suggests that the organization may enhance religious motive by providing opportunities for individuals to experience spiritual progress.

### Implication for national policy makers

There are many ways governments can support these organizations. Primarily, governments can minimize the opportunity cost of time constraints due to employment of individuals by establishing a national agenda on volunteering. For example, all Australian Capital Territory Government employees are entitled to three days paid Community Service Leave per year to undertake volunteering activities with recognized community organizations. Furthermore, there are many countries such as Australia, Canada, and the Czech Republic which have set up employee volunteer programs (EVPs)[1] that have created partnerships between the public, private, and voluntary sectors. In addition, based on the present finding a religion helps promote volunteering by fostering personality traits of agreeableness, conscientiousness, and extraversion, and incentivizes the motivation to volunteer due to values, understanding, and religious motives. Thus it is recommended that governments add religious organizations as one of the NPIs in the EVPs.

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[1] Employee volunteers are paid staff of a company who, with the support and encouragement of their employers, are involved in some of community-based volunteer activity.

## Conclusion

Volunteers are a vital resource for NPIs and an important part in the success of their mission. Thus, as a NPI, it is essential that the BKWSU understand what factors are influencing the BKWSU members to perform volunteer work. This study found that individuals who are most likely to perform volunteer work are those with high levels of religiosity, and specific personality traits - agreeableness, conscientiousness and extraversion – and a motivation to volunteer due to values, understanding, and religious motives. Furthermore, individuals who have low hours of paid work tend to volunteer more. The proper actions implemented by the BKWSU and governments which promote these factors may increase and sustain the individual's contribution to volunteer work.

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Appendix A: Constructs in the survey and measurement

| Variable and Description | Number of item(s) | Observed indicator | Measure | Literature |
|---|---|---|---|---|
| Volunteering : The spending of time, effort, and property, of one's free will without being paid to undertake volunteer work | 4 | VF: Frequency of volunteer VH: Volunteer hours VD: Volunteer effort VP: Property use | Check list Fill in the blank Five Point Likert Scale | Brahma Kumaris World Spiritual University (2003) and Powers (2008) |
| Religiosity : The adaptation of Santa Clara Strength of Religious Faith's type of questionnaire is used to measure the religiosity of individuals | 4 | RF1: Meaning to life RF2: Inspiration RF3: To lie behind one's life RF4: Decision - making | Five Point Likert Scale | Plante and Boccaccini (1997). |
| Personality traits : Comprised of agreeableness, conscientiousness, and extraversion traits | 12 ( 4 items per each trait) | PTA: Agreeableness PTC: Conscientiousness PTE: Extraversion | Five Point Likert Scale | Costa and McCrae (1992); Jackson, Paunonen, and Tremblay (2000). motive) |
| Motivation to volunteer : Comprised of religious, values, understanding, enhancement, and protective motives | 10 (2 items per each motive) | MO1: Gratitude to God* MO2: God's prompting MO3: Determination to help MO4: Volunteer spirit MO5: Hands-on experience MO6: Learn to deal with people* MO7: To make new friends* MO8: To feel useful* MO9: To fill a gap* MO10: To work through one's problems* | Five Point Likert Scale | Chacón, Pérez, Flores, and Vecina(2011), Clary *et al.* (1998); Smith (2010). |

| Variable and Description | Number of item(s) | Observed indicator | Measure | Literature |
|---|---|---|---|---|
| Education : Level of education | 1 | EDU: Years of schooling completed | Check list | Bussell and Forbes (2002) |
| Hours of paid work : The number of hours worked per week in paid employment | 1 | HEMY: Hours of paid | Check list Fill in the blank | Freeman (1997); Lamb (2011); Van Dijk and Boin (1993). |

Note. * In this measurement model, factor loading of these observed indicator variables of motivation to volunteer was lower than 0.5, thus they were deleted.

Appendix B: Summary of Goodness of Fit Test Results for Measurement Models

| Construct | $\chi^2$ | P-value | $\chi^2/df$ | GFI | AGFI | RMSEA | NFI | CFI |
|---|---|---|---|---|---|---|---|---|
| Volunteering | 0.518 | 0.472 | 0.518 | 0.998 | 0.994 | 0.000 | 0.999 | 1.000 |
| Religiosity | 0.065 | 0.799 | 0.065 | 1.000 | 0.998 | 0.000 | 1.000 | 1.000 |
| Personality Traits | 40.323 | 0.285 | 1.120 | 0.958 | 0.922 | 0.028 | 0.933 | 0.992 |
| Motivation to volunteer | 1.128 | 0.288 | 1.128 | 0.996 | 0.965 | 0.028 | 0.996 | 1.000 |

Appendix C: Reliability and Validity

| Construct | Number of Items | Cronbach's Alpha (>.70)* | Composite Reliability (>.70)* | Average Variance Extracted (>.50)* |
|---|---|---|---|---|
| Volunteering | 4 | 0.881 | 0.858 | 0.603 |
| Religiosity | 4 | 0.909 | 0.905 | 0.707 |
| Personality Traits | 12 | 0.860 | 0.802 | 0.585 |
| Motivation to Volunteer | 4** | 0.851 | 0.842 | 0.581 |

Note. * Indicates an acceptable level of reliability or validity

    ** After deleting six items which had a factor loading lower than 0.5, the final items of motivation to volunteer consist of MO2, MO3, MO4, and MO5 as cited in Appendix A.

Appendix D: Average Variance Extracted and Shared Variance Estimates

| Construct | Volunteering | Religiosity | Personality traits | Motivation to volunteer |
|---|---|---|---|---|
| Volunteering | 0.603 | | | |
| Religiosity | 0.268 | 0.707 | | |
| Personality traits | 0.305 | 0.208 | 0.585 | |
| Motivation to volunteer | 0.123 | 0.135 | 0.319 | 0.581 |

Note. AVE estimates are presented on the diagonal. AVE values were greater than the shared variance.