

A Causal Relationship Model of Students' Participatory Behavior towards University Social Responsibility

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The purpose of this study was to examine a causal relationship model of the factors affecting participatory behavior towards university social responsibility among 972 students in a university in Thailand. The sample group was selected by simple random sampling. The instrument used a six-point Likert-type scale. The reliability coefficient Cronbach's alpha value ranged from .95 to .97. Data were analyzed using LISREL. The results showed that the model fits the empirical data, considering goodness of fit measures, namely Chi-square = 422.66 ($df = 165$), p -value = 0.00, (χ^2/df) = 2.56, CFI = 1.00, RMSEA = 0.04, and SRMR = 0.04. The perception of campus image was found to be the highest direct predictor of participatory behavior towards university social responsibility ($\beta = .72$); all causal variables accounted for sixty percent of the variance of participatory behavior towards university social responsibility. The perception of university support was found to be the highest direct predictor of the perception of campus image ($\beta = .45$); all causal variables accounted for sixty two percent of the variance of the perception of campus image. The findings are considered to be useful in terms of planning information to improve campus image, and university support for raising awareness and promoting socially responsible behaviors among the new generation so as to nurture high quality human capital in society, which is a vital force for sustainable development in a nation.

Keywords: university social responsibility, participatory behavior, campus image, religious affiliation

Social Responsibility is a virtue that represents a good conscience and an ability to control needs appropriately. It also means one's ability to distinguish what most people desired and were able to perform when they have to face the bad situations or people in their community (Good, 1973). People and organizations that have social responsibility often develop a good conscience from their families and societies. This can be a solution to improve the way of life, the society, and the nation.

The concept of social responsibility has developed over the years until it has come to be the concept of Corporate Social Responsibility (CSR), which has widely spread to the business sector and other organizations. The CSR is extensively used by big organizations for people and social development. These organizations, including educational institutes, have to take responsibility for social development (Board of Technical Cooperation for Development of Teaching and Research of Business Administration, 2012). This concept transformed and became the University Social Responsibility (USR) which emphasizes the important roles of educational institute's role in social development. The USR focuses on new dynamics of higher education and research for societal change and development (Knowledge Network Institute of Thailand, 2010). Each university has to take responsibility for the society in every aspect, especially educating the population with ethics and social responsibility. The role of universities is not just to provide graduates, but to research, develop, and create a true knowledge-based society.

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A review of research papers and theories found that psychological characteristics (personal factors) such as public-service consciousness and religious affiliation, and environment in university (social factor) for example; teacher and friend's positive role model, and university support are related to students' behavior towards university social responsibility (Bar-On, 2000; Mayer & Salovey, 2004). Moreover, the significant median variable that influences factors such as psychological, environmental, and the participatory behavior towards university social responsibility is the perception of campus image (Kotler, 2000).

The USR becomes successful because of educational personnel who support and accept these concepts and implement these policies, including administrators, teachers, and academic staff. Students' active participation is also the driving force that makes social responsibility programs of the university become sustainable. Social responsibility among these young people will elevate them to be better members of society and bring sustainable development to the country. All universities in Thailand have a policy on social engagement and development especially Rajabhat Universities (a nationwide educational network) and are closely connected to communities. The network focuses on social empowerment policy aims to develop the local communities. It clearly shows the role of social responsibility for local development, leading to sustainable development of the country. Therefore, the students' participation behavior towards supporting the social responsibility policy of Rajabhat Universities is an extremely interesting topic to study. Moreover, Rajabhat Universities in Thailand are the main provider of human resources of Thai society for 123 years now (Office of the Rajabhat University Presidium, 2015). The Rattanakosin group of Rajabhat University is the representative of the educational institute which focuses on urban development because this area is dealing with many problems from technology, economy, society, art and culture (Office of the Higher Education Commission, 2009). The society expects the group to create and develop a habitable zone. The researcher forecasts that Rattanakosin students' behaviors can be an important variable to support university's role and obviously reflect good characteristics and quality of university. Thus, this research aims to find out how the psychological factors and the university environment influence the students' participatory behavior towards university social responsibility. There is no direct research study on USR variables, so it is interesting to use the USR and sustainable development concepts for studying Rajabhat students' behaviors towards USR participation. These concepts conform to congress of ASEAN University Network (2011) which focuses on international standard of educational management and it can forecast the USR behavior. Furthermore, these concepts conform to policy and mission of Rajabhat University and ASEAN University Network Quality Assessment system (AUN-QA) which is the tool to certify academic curriculum quality to be international and ASEAN standard. It creates confidence in the education system to cultivate consciousness based on the social responsibility of the university, as a vital role in contributing to the sustainable development, from individual to organizational and national level.

Hypothesized Model of Participatory Behavior towards University Social Responsibility

The researcher set up a research framework by using the social cognitive theory of Bandura (1986) and the concept of university social responsibility for sustainable development.

The participatory behavior of the students towards USR is based on the concept of university social responsibility for sustainable development of ASEAN University Network (2011). This research studied students' behavior by reporting how their roles or actions contribute, support, or assist university with social responsibility issues.

Personal factors (P) or psychological factors that influence the participatory behavior towards USR including the religious affiliation were derived from the concept of family religious affiliation based on the research of Intarakamhang, Choochom, and Sucaromana (2007) and public-service consciousness variables from Gardner's Five Minds (Gardner, 2008).

The factors of the environment (E) or social factors that influence the participatory behavior towards USR are good role models from teachers according to the Pyramid of Corporate Social Responsibility by Carroll (1991), university support variables adapted from the perceived organizational support concept of Eisenberger, Huntington, Hutchison, and Sowa, (1986) and good role model from friends as stated in Bandura's Social learning theory (Bandura, 1977).

The final variable is the mediator variable that influences the participatory behavior towards USR, perception of campus image which conform to the local development concept of Rajabhat University (Office of the Rajabhat University Presidium, online, 2015).

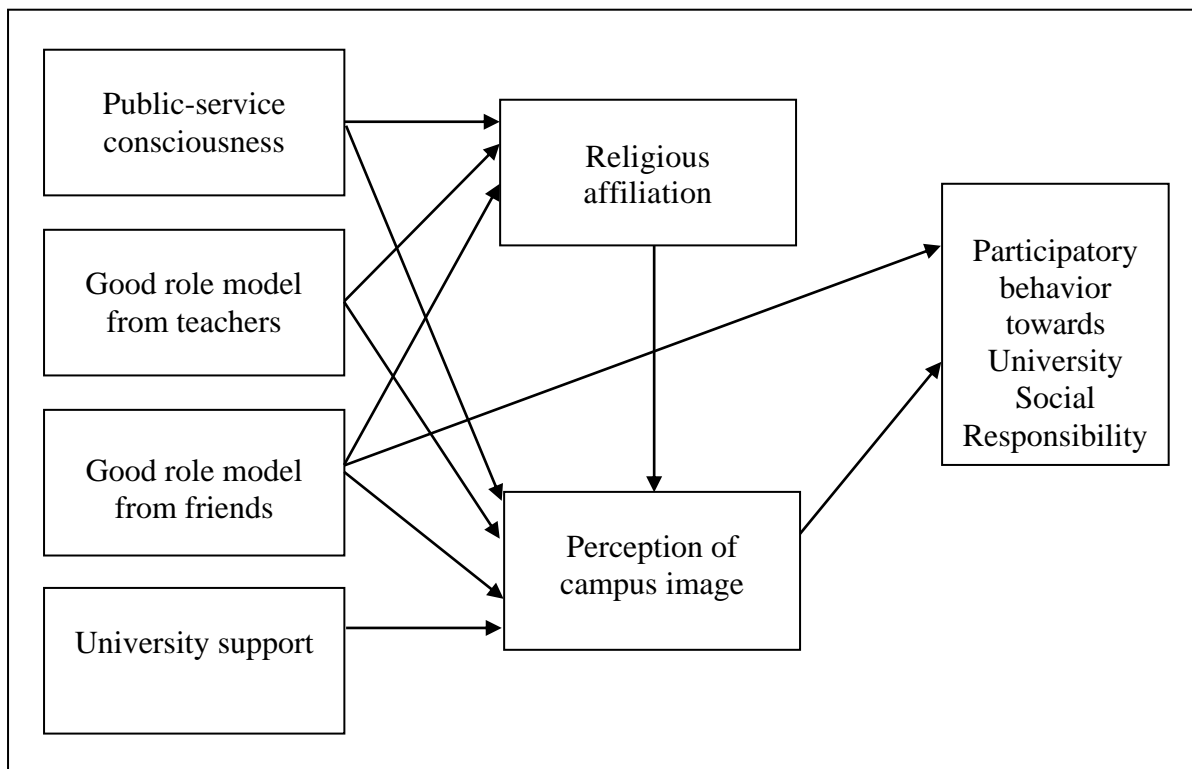


Figure 1. The Conceptual Model of a Causal Relationship Model of Participatory Behavior towards University Social Responsibility

Based on the concept and results of several studies, psychological factors, environmental factors, participatory behavior towards USR, and perceptions of the university image are correlated (Berkowitz & Lutterman, 1968; Kotler, 2000). (See figure 1). Public-service consciousness variables affect religious affiliation, reputation or corporate image, and affect the job behavior (Wongwanich & Wiratchai, 2000; Piriyakul & Wingwon, 2012). Also, good role models from teachers' influence, religious affiliation, and perceptions of campus image (Wongwanich & Wiratchai, 2000; Thongkhambanjong, 2002). Good role models from friends influence religious affiliation, perception of campus image, and the participatory behavior towards USR (Barry & James, 1996; Wongwanich & Wiratchai, 2000;

Thongkhambanjong, 2002). Moreover, university support has a direct influence on the campus image (Wongmontha, 1999; Wongwattana, 2014).

The conceptual model of research is shown in figure 1 and is based on the research hypotheses which were:

1. Perception of campus image has a direct effect on the participatory behavior towards USR.
2. Religious affiliation and university support have a direct influence on perception of campus image and indirect influence on participatory behavior towards USR through perception of campus image.
3. Public-service consciousness and good role model from teachers have direct influence on religious affiliation and perception of campus image and indirect influence on participatory behavior towards USR through religious affiliation and perception of campus image.
4. Good role models from friends have a direct influence on religious affiliation, perception of campus image and participatory behavior towards USR and indirect influence on participatory behavior towards USR through religious affiliation and perception of campus image.

Method

Participants

Participants were 972 freshmen to fifth-year undergraduate students from 5 Rajabhat Universities of Rattanakosin Group. The sample size was determined according to the statistics used in the confirmatory factor analysis and analysis of causal structural model with latent variable. Maximal Likelihood Estimation based on Schumacher and Lomax (1996) estimated that the sample size should not be less than 10 per one observation variable. Thus, using simple random sampling by lottery and compiled the sample size according to the proportion of each university. After collecting data, there were 972 samples for the analysis which were sufficiently large to provide reliability of the data analysis.

Measures

Participatory behavior towards university social responsibility. The researcher designed and developed a questionnaire from the concept of university social responsibility for sustainable development (ASEAN University Network, 2011). There were 19 items which were divided into 6 aspects, namely, instruction, research and society, social academic service, administration and supervising, community participation, and life quality in university. The questionnaire used a 6-point Likert-type and the Cronbach's alpha value was recorded at 0.97. Confirmatory factor analysis found that the measurement model of participatory behavior towards university social responsibility was consistent with the empirical data. The weight of the components ranged from 0.77 to 0.85.

Perception of campus image. The questionnaire was developed from indicators and local development performance evaluation criteria of Rajabhat University (Uttapap, 2010) and quality indicators of higher-education for local development of Nakhonsawan Rajabhat University (Pheunghong, 2011). There were 19 items divided into 4 aspects which based on Rajabhat University missions, namely, educational management for locality, research for locality, social and local academic service, art and culture conservation, and local wisdom maintenance. The questionnaire used a 6-point Likert-type and the Cronbach's alpha value was recorded at 0.97. Confirmatory factor analysis found that the measurement model of

perception of campus image was consistent with the empirical data. The weight of the components ranged from 0.79 to 0.89.

Religious affiliation. Beliefs and behaviors of students based on religious affiliation and religious activity participation in daily life were measured by adapted questionnaire from religious affiliation in family questionnaire of Intarakamhang, Choochom, and Sucaromana (2007). There were 14 items and the Cronbach's alpha value was recorded at 0.95. Confirmatory factor analysis found that the measurement model of perception of religious affiliation was consistent with the empirical data. The weight of the components ranged from 0.71 to 0.84.

Public-Service consciousness. Public-service consciousness was measured from societal beneficial appreciation, social regulations and social benefit activities volunteers. The researcher developed the measurement tool from the questionnaires of Kongdit and Intarakamhang (2012), and Sengcharoen (2013). There were 14 items and the Cronbach's alpha value was recorded at 0.97. Confirmatory factor analysis found that the measurement model of perception of public consciousness was consistent with the empirical data. The weight of the components ranged from 0.78 to 0.90.

Good role model from teachers. To measure students' recognition of good role model from teachers in the 4 components of social responsibility, namely, 1) university economy, 2) social law and social regulation, 3) ethics, and 4) social dedication. The questionnaire was developed from the "Pyramid of Corporate Social Responsibility" by Carroll (1991). There were 18 items and the Cronbach's alpha value was recorded at 0.97. Confirmatory factor analysis found that the measurement model of good role model from teachers was consistent with the empirical data. The weight of the components ranged from 0.79 to 0.90.

University support. To measure students' recognition of university support or social participation behavior in 2 components, namely, the materials, budget and workforce component, and development and acceptance components, the questionnaire was developed from Praditbathuka, Intarakamhang, and Supparerkchaisakul (2013). There were 11 items and the Cronbach's alpha value was recorded at 0.95. Confirmatory factor analysis found that the measurement model of university support was consistent with the empirical data. The weight of the components ranged from 0.79 to 0.86.

Good role model from friends. The questionnaire consisted of 3 elements. These were the emotional role model recognition from friends, cognitive consumption role model recognition from friends, and public-service mind role model recognition from friends. The questionnaire was adapted from emotional role model and appropriate behavior cognition from friends of Choochom, Sucaromana, and Srijindarat (2006). There were 21 items and the Cronbach's alpha value was recorded at 0.96. Confirmatory factor analysis found that the measurement model of good role model from friends was consistent with the empirical data. The weight of the components ranged from 0.67 to 0.85.

Data Collection and Analysis

Before collecting data, this study was approved by the Human Research Ethics Committee, Srinakharinwirot University (certification number: SWUEC/E-180/2559). The researcher collected the data and inspected if answers were completed then analyzed the data with LISREL analysis to inspect the confirmative components of measurement tools and construct validity, and to analyze the latent variable in structural equation models for inspecting the theoretical assumption model validity with empirical data.

Results

The results of the hypothesis testing with empirical data in Figure 2 showed that the influence and test statistical significance were not significant. The researcher removed the influence path to adjust the model and allowing tolerances to measure if the variables were related. The adjusted analysis found that: 1) the relationship of latent variables on public-service consciousness directly affected the perception of campus image; 2) the relationship of latent variables on good role model from teachers directly affected the perception of campus image; and 3) the relationship of latent variables on good role model from friends also directly affected the perception of campus image.

The findings of harmonious model inspection after adjusting the model with empirical data found that $\chi^2 = 422.66$, $df = 165$ ($p = .00$), $\chi^2/df = 2.56$, CFI = 1.00, SRMR = 0.04, RMSEA = 0.04 and chi-square (χ^2) consideration found that the statistically significance depends on the samples size, “the bigger the sample size is, the larger chi-square value”, it could not conclude correctly. Therefore, the researcher adjusted another statistic of $\chi^2/df = 2.56$ which met the criteria by 3. It referred to the model harmonized with the empirical data. The RMSEA of less than 0.05 referred to the model which had very good harmony. The SRMR of less than 0.05 referred to the model which was concordant with the empirical data. Furthermore, the CFI of more than 0.90 referred to the model which was a good concordant with the empirical data. It could be concluded by those indicators that the structural equation models of the revised USR behavior were harmonized with the empirical data and harmonized with effect-sized estimation of the approval model in figure 2.

In addition to the other finding, causal variables had direct effects on religious affiliation including public-service consciousness, good role model from friends, and good role model from teachers ($\beta=.47$, $\beta=.32$, $\beta=.13$; $p < .05$). All variables could predict 75% of variance in participatory behavior towards USR.

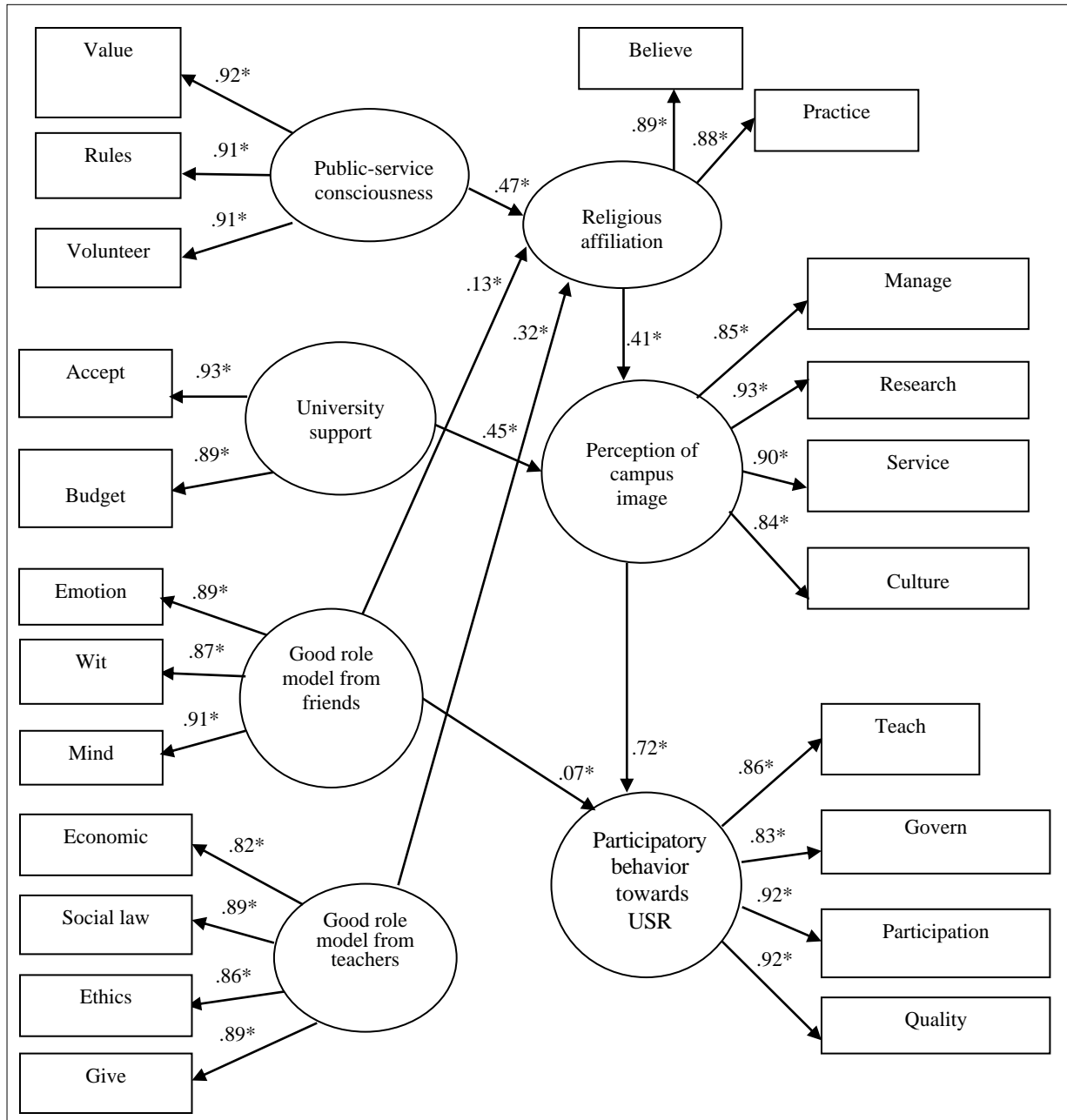
Furthermore, causal variables had direct effects on perception of campus image including university support and religious affiliation ($\beta=.45$, $\beta=.41$; $p < .05$) and had indirect effects on perception of campus image including public-service consciousness, good role model from friends, and good role model from teachers (IE=.19, IE=.06, IE=.13; $p < .05$). All variables could predict 62% of variance in perception of campus image.

Discussion

This study found that the perception of campus image directly influenced the participatory behavior towards university social responsibility. That means, when students perceived their campus image in a positive way and realized the mission of social development, they became aware and were encouraged to cooperate or participate in activities related to university social responsibility. These conform to Kotler's (2000) findings that the students who had social responsibility would often expect and admire their campus image referred to as participatory behavior towards university social responsibility. Berkowitz and Lutterman (1968) also found that an attraction factor to persuade students' participation in all university social responsibility activities was the campus image.

The study results related to the religious affiliation aspect found that it directly influenced the perception of campus image and indirectly influenced the participatory behavior towards university social responsibility. This explained that students who had religious affiliation would also have a conscience (a sense of right and wrong) and are considerate of public benefits rather than of themselves. It was provoked by their awareness about the good role image of Rajabhat University. When students understood and perceived

the university role, they would want to have an important role in university's social activities and projects. This conformed to the study of Wongwattana (2014) that found that the characteristic factor of students' ethics which related to the religious affiliation directly influenced the campus image, and students who believed in Buddhism and were truly devoted to Buddhist ethical precepts would participate frequently in voluntary activities than other students (Vanindananda, 2009)



$$\chi^2 = 422.66, df = 165 (p = .00), \chi^2/df = 2.56, CFI = 1.00, SRMR = 0.04, RMSEA = 0.04$$

Figure 2. A Causal Relationship Model of Students' Participatory Behavior towards USR

Moreover, causal variables had direct effects on participatory behavior towards USR including university support and good role model from friends, ($\beta=.32$, $\beta=.07$; $p < .05$) and had indirect effects on participatory behavior towards USR including good role model from

friends, religious affiliation, public-service consciousness, university support and good role model from teachers ($IE=.04$, $IE=.30$, $IE=.14$, $IE=.32$, $.09$; $p < .05$). Perception of campus image was the mediator between internal factors and participatory behavior towards USR ($\beta=.72$; $p < .05$). All variables could predict 60% of variance in participatory behavior for the USR.

The findings about the public-service consciousness aspect showed that the public-service consciousness directly influenced the religious affiliation and indirectly influenced the participatory behavior towards university social responsibility through the variables of influence of religious affiliation and the perception of campus image. This explained that students' characteristics about public-service consciousness quite conformed to the strong religious belief of the one who was taught on virtue and good religious principles, including the art and culture preservation projects or service attendance which were relevant to the religious activities. Therefore, students who often participated in university's religious activities were trained to have a desirable characteristic towards the university. It obviously corresponded to the requirement and role of campus image as Intarakamhaeng stressed that a religious leader who had public-service consciousness would be a good role model to people in practicing religious principles (Phuban, 2006; citing Intarakamhaeng, 1985), while Piriyaikul and Wingwon (2012) found that person's goodness was the other important characteristic aside from the body of knowledge, inspiration and social role to promote university's reputation or campus image.

Teachers perceived as good role models had a direct influence on religious affiliation and indirect influence on participatory behavior towards university social responsibility by the religious affiliation and perception of campus image. Laohaserikul also recommended that teachers were an important key factor to transfer religious ethics to their students because students observed teachers' ethical behavior (Vanindananda, 2009; citing Laohaserikul, 1994). Hence students would be willing to behave as well as teachers like a role model until they were affiliated with the religion. Moreover, when students realize that their behaviour and their teachers' behaviour were part of promoting the campus image, they would participate in the university social responsibility activities progressively.

The research findings showed that perception of university support had a direct influence on the perception of campus image and had an indirect influence on the participatory behavior towards university social responsibility through the perception of campus image. It could explain that all support in terms of finance, materials and moral support from the faculty/department or university could not only drive students' participative behaviour towards the university social responsibility activities but also inform students that their behaviours and actions were relevant to the mission or goal of the university. Whenever students understood their role in promoting the campus image and got reinforcement from all units, they would be willing to participate in most of the university social responsibility activities. Wongmontha (1999) presented that the organization which provided adequate support, would receive good campus image, inspired people in the campus on social service and dedicated to their work. This concept also conformed to the studies of Barry and James (1996) which found that social support encourages good atmosphere at work and affects work competency.

Good role model from friends directly influenced religious affiliation and participatory behavior towards university social responsibility and indirectly influenced participatory behavior towards university social responsibility through religious affiliation and perception of campus image. This finding conformed to research of Thongkhambanjong (2002) which found that friends affected ethical make up of graduate students along with them following

the Buddhist principles. Moreover, the research of Wongwanich and Wiratchai (2000) also found that friends influenced the students' ethical development by supporting factor and process.

Recommendations and Future Research

The results of the study indicated that the students' participatory behavior towards university social responsibility directly affected the perception of campus image. Therefore, the university needs to apply this result to improve the campus image and transmit the excellent image to student with the variety of approaches in order to understand the role of the university in social development. Moreover, the university needs to present its excellent role in social development and noticeable role on educational management, research, social academic service, and maintain art and culture of urban and local community. If students are aware of these campus roles, they will certainly participate in university social responsibility projects.

The student's perception of campus image requires university support. Therefore, the campus needs to support material, budget, and workforce to help students' social responsibility activities. Moreover, the campus should recognize students who work for society and give them opportunity to visit social service activities of external organization. This kind of support will reinforce students to perceive the excellent campus image or become aware of university's role which encourage students' participation in the university social responsibility projects.

The results of this study found that the religious affiliation was directly influenced by public-service consciousness. Therefore, the campus needs to improve students' public-service mind first because the religious affiliation affects the campus image which can change students' behavior towards university social responsibility. From this result, the researcher recommends that the campus should define its policy to encourage students' participatory behavior towards USR by creating specific courses relevant to public-service consciousness, religious projects or activities, and other social related activities.

The causal variables could explain the variance of participatory behavior towards university social responsibility at low level. Therefore, further research should investigate other causal variables, namely psychological characteristics and external environment, which could explain the participatory behavior towards university social responsibility of students more clearly.

Experimental research should be conducted to create prototype activities for the development of the student's psychological characteristics, such as religious affiliation, public-service consciousness, etc. In addition, universities should manage the campus environment appropriately to encourage the socialization and social support from lecturers, friends, and the university. These can be used as a guide to develop the participatory behavior towards university social responsibility of the student to be more effective.

This study suggests that USR should become an important mission of a university. The activities of a university in various forms should focus on social service and consider the impact on stakeholders in society and community. Also, universities should keep continuing with its social responsibility to build confidence among other universities and social sectors. These are all contributing factors to the sustainable development of organization and society.

Acknowledgement

This research was financially supported by the Office of Higher Education Commission, Thailand. The researcher would like to thank the coordinators of Rajabhat University, Rattanakosin group, and all participants in this research.

References

- ASEAN University Network. (2011). *AUN Annual Report 2010/2011*. Retrieved September 26, 2015 from <http://www.aunsec.org/Section8/8.2.2AnnualReport/AUNannualreport20102011.pdf>
- Bandura, A. (1977). *Social learning theory*. Englewood cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs. NJ: Prentice-Hall.
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the emotional quotient inventory. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 363-388). San Francisco: Jossey-Bass.
- Barry, J. B., & James S. B. (1996). The effects of perceived co-worker involvement and supervisor support on service provider role stress, performance and job satisfaction. *Journal of Retailing*, 72(1), 57-75.
- Berkowitz, K., & Lutterman, L. (1968). The traditionally socially responsible personality. *Public Opinion Quarterly*, 32, 169-185.
- Board of Technical Cooperation for Development of Teaching and Research of Business. (2012). *Guidelines for corporate social responsibility*. The Stock Exchange of Thailand: Social Business Institute. Bangkok: Magic Press. [In Thai]
- Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizon*, 34(4), 39-48.
- Choochom, O., Sucaromana, A. & Srijindarat, U. (2006). An analysis of psychosocial factors related to Thai youths intellectual consciousness and quality of life. *Journal of Behavioral Science*, 12(1), 15-35. [In Thai]
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507. <http://dx.doi.org/10.1037/0021-9010.71.3.500>
- Gardner, H. (2008). *Five minds for the future*. Retrieved November 24, 2016, from <https://howardgardner01.files.wordpress.com/2012/06/five-minds-for-the-future-january-20081.pdf>
- Good, C. V. (1973). *Dictionary of education*. NY: McGraw-Hill Book Company.
- Intarakamhang, U., Choochom, O., & Sucaromana, A. (Sep, 2007). Casual relation analysis and indices of midlife crisis of married Thai women working outside houses in Bangkok and periphery. *Journal of Behavioral Science*, 13(1), 50-65. [In Thai]
- Knowledge Network Institute of Thailand. (2010). *Strategy and implementation 2011*. Retrieved June 18, 2015, from <http://www.knit.or.th/web/wp-content/uploads/2017/01/yearbook2554.pdf>. [In Thai]
- Kongdit, S. & Intarakamhang, U. (2012). Psycho-social factors related to working behavior with social responsibility employees who work at auto manufacturers. *Journal of Behavioral Science for Development*, 5(1), 165-175. [In Thai]
- Kotler, P. (2000). *Marketing Management*. (10th ed.) (p. 296). NJ: Prentice-Hall.

- Laohaserikul, H (1994). Attendance of Buddhist Sunday Schools and adolescent students' Buddhist and behavioral characteristics. (Unpublished master's thesis). Srinakharinwirot University, Bangkok, Thailand. [In Thai]
- Mayer, J. D., & Salovey, P. (2004) Social intelligence [Emotional intelligence, personal intelligence]. In C. Peterson & M. E. P. Seligman (Eds.), *Character strengths and virtues* (pp. 337-353). Washington, DC: American Psychological Association.
- Office of the Higher Education Commission. (2009). University social responsibility: USR. Retrieved September 18, 2013, from http://www.mua.go.th/data_pr/data_sumate_52/Retreat_4.pdf [In Thai]
- Office of the Rajabhat University Presidium. (2015). *History of Rajabhat University*. Retrieved September 18, 2015 from <http://www.rajabhatnetwork.com/Default.aspx?pageid=3> [In Thai]
- Pheungthong, C. (2011). *The development of quality indicators for being a higher education institution for local development of Nakhon Sawan Rajabhat University*. (Unpublished master's thesis). Sukhothai Thammathirat Open University, Bangkok, Thailand. [In Thai]
- Phuban, B. (2006). *An Application of puppet playing video model to develop the second grade students' public mind*. (Unpublished master's thesis). Srinakharinwirot University, Bangkok, Thailand. [In Thai]
- Piriyakul, M., & Wingwon, B. (2012). Structural effects of corporate ability and corporate reputation on corporate operational performance and corporate social responsibility. *Management Journal Faculty of Management Science Lampang Rajabhat University*, 5(1), 97-115. [In Thai]
- Praditbathuka, P., Intarakamhang, U., & Supparerkchaisakul, N. (2013). The psycho-social causal factors affecting the competency and research-based instruction behaviors of faculty members of Rajabhat universities in Bangkok metropolitan and vicinity area. *Journal of Behavioral Science*, 19(2), 1-16. [In Thai]
- Schumacher, R. E., & Lomax, R. G. (1996). *A beginner's guide to SEM*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Sengcharoen, S. (2013). *An analysis of structural causal relationship of factors influencing on public mind of undergraduate students*. (Unpublished master's thesis). Srinakharinwirot University, Bangkok, Thailand. [In Thai]
- Thongkhambanjong, S. (2002). *A study of Buddhism ethical structure of undergraduate: conceptualization, measurements of changes, and causal models of change*. (Unpublished doctoral dissertation). Srinakharinwirot University, Bangkok, Thailand. [In Thai]
- Uttapap, A. (2010). *Performance evaluation of the local development of Rajabhat Universities*. (Unpublished doctoral dissertation). Ramkhamhaeng University, Bangkok, Thailand. [In Thai]
- Vanindananda, Ng. (2009). Article review: family religion school and socialization on Buddhist religious of Thai youths: a Research Review in Behavioral Science. *Journal of Social Development*, 11(1), 25-60. [In Thai]
- Wongwattana, S. (2014). Causal structural relationship model of factors influencing image of Rajabhat Universities. *Rajabhat Journal of Sciences, Humanities and Social Sciences*, 15(1), 121-137. [In Thai]
- Wongmontha, S. (1999). *Public relations: theories and practices*. Bangkok: Thera Film and SITEX. [In Thai]

Wongwanich, S. & Wiratchai, N. (2000). *Factors and process facilitation the development of individual university student's virtue towards success for all: a quantitative and qualitative study*. Bangkok: Department of Educational Research, Faculty of Education, Chulalongkorn University. [In Thai]