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Sustainable Economic Development through Service-Learning: The Revised Theory of Planned Behavior in Predicting Behavioral Intent to Serve the Community

Vinitha Guptan¹ and Shahimi Mohtar²

¹Taylor's Business School, Taylor's University, No. 1, Jalan Taylor's,
47500 Subang Jaya, Selangor, Malaysia.

²School of Technology Management and Logistics, Universiti Utara Malaysia,
06010 UUM Sintok, Kedah Darul Aman, Malaysia.

Corresponding email: ¹vinitha.g@taylors.edu.my and ²shahimi@uum.edu.my

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Abstract

The strive for economic development must focus on community inclusiveness, which must begin with the role education in transforming the mindsets of the youth to take their productive roles in ensuring sustainability. Thus, there is a need to understand what determines the behavioral intent to participate in community service. Based on the extended theory of planned behavior (TPB) and the educational theories of constructivism and social learning, this study develops a research model to identify how curriculum connections and attitude can influence undergraduates' behavioral intent to serve the community today and in the future, with the hope that they become empowered to take control of their communities and transformatively advance sustainability in their lifetimes. Based on a survey of 256 undergraduates who participated in service learning projects, this study uses structural equation modeling (SEM) approach to investigate the research model. The results indicate that curriculum connections and attitude significantly influenced their behavioral intent to serve the communities in future. Finally, this study discusses the implications of these findings and offer directions for future research.

INTRODUCTION

Policy makers must have a holistic view of how all stakeholders of the economy play their respective roles in achieving sustainable economic development. The strive for economic development must focus on community inclusiveness, which must begin with the role education in transforming the mindsets of the youth to take their productive roles in ensuring sustainability. Starik, Rands, Marcus & Clark (2010) aptly pointed out that "Integrative coursework and beyond-classroom projects that produce real and beneficial results in all these fields (of management and business) need to be developed to empower students to "take over" the instruments of societal power and influence **to transformatively advance sustainability in their lifetimes.**" (p. 381)

The voluminous literature on community inclusiveness and service-learning (Sandaran, 2012; Kronick & Cunningham (2013) does provide an impetus to all and sundry of the need to deeply examine how curriculum connections to community places community inclusiveness into the education agenda. This is then hoped to

translate into economic development that is more sustainable, as more people gain deeper awareness of their community at large and the need for mindful economic development that advances sustainability. Higher Education Institutions play a pivotal role in community engagement and economic development through the incorporation of community issues into the curriculum delivered, so that undergraduates get hands-on service-learning experience that will develop and enhance their graduate capabilities.

This study aims to develop a research model (Figure 1) to reveal the application of the theory of planned behavior model in predicting the intention to serve the community, by examining the curriculum connections and attitude predictors of behavioral intent. A specially designed questionnaire was employed to elicit information pertaining to how integrating service learning into the business curriculum and attitude influenced undergraduates' behavioral intent to serve the community. Data from 256 valid questionnaires were analyzed using the variance-based Partial Least Squares-Structural Equation Modeling (PLS-SEM) method.

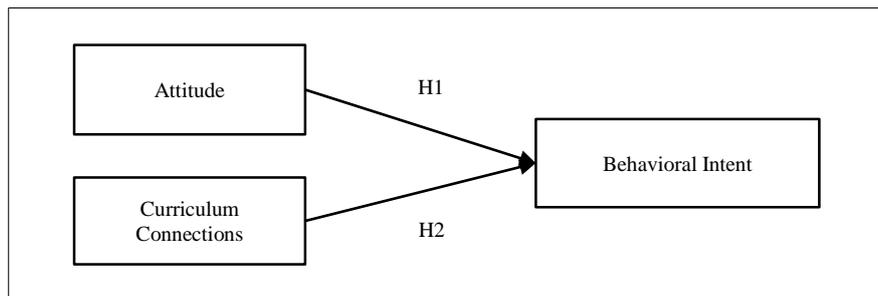


Figure 1
Research Model

LITERATURE REVIEW AND HYPOTHESES

A number of studies on service-learning have mostly focused on the American perspective, while there is a lack of such studies in Malaysia. In Malaysia, the National Higher Education Strategic Plan 2007-2020 (Ministry of Higher Education, 2006) made calls for higher education institutions to have a more focused community orientation via learning and civic action. Malaysia's sustainable economic growth depends very much on a new vision of higher education that places community orientation at the forefront of every graduate. Taking the cue from the Ministry of Higher Education, and realizing the lack of such studies in Malaysia, this paper is in the right direction. The study adds a fresh perspective to service learning by applying a revised version of the theory of planned behavior (Ajzen, 1991) in examining how behavioral intent is predicted. The Service Learning and Curriculum Framework is utilised to provide the platform for connecting service learning activities within the classroom curriculum. Butin (2010) and Clayton, Bringle, & Hatcher (2013) validate the importance of service-learning as a part of a formal academic curriculum.

Ajzen (1991), in the TPB model posits that attitude, subjective norms and perceptions of behavioral control can generally predict behavioral intentions of individuals. However, this study only looks at the influence of attitude towards behavioral intent, but extends the model to also focus on the influence of curriculum connections on behavioral intent to serve the community. The TPB theory has been applied in many disciplines, but not many service-learning studies have applied the TPB model (Hyde & Knowles, 2013; Greenslade & White, 2005; Warburton & Terry, 2000). This study there develops a research model that uses attitudinal construct of the TPB model within the service-learning and curriculum framework to hypothesize the following:

H1: Attitude is positively associated with Behavioral Intent.

H2: Curriculum Connections is positively associated with Behavioral Intent.

METHODOLOGY

Data and Statistical Analysis

To test the proposed hypotheses, a self-administered questionnaire-based survey of business undergraduate students in a private institution of higher education was utilised to collect data. 300 questionnaires were distributed among the students undertaking service-learning activities in a private institution of higher learning, out of which only 256 valid questionnaires were used in the analysis, a response rate of 85.33%. The questionnaire utilized a 1–6 Likert scale format. To test the hypothesis of this study, Partial Least Squares-Structural Equation Modeling (PLS-SEM) method using SmartPLS 2.0 (Ringle et al., 2005) was employed. The sample size for this study is considered sufficient to achieve the desired statistical power (Hair, Hult, Ringle &

Sarstedt, 2014). In employing PLS algorithm, the path coefficients are estimated and by means of bootstrapping with 1000 samples, the hypotheses are tested.

FINDINGS

Validity of the Measures

Structural equation modelling (SEM) was employed in this study to test the hypotheses. Anderson and Gerbing (1988) recommended that the two-stage approach be adopted to perform the SEM analysis: the measurement model stage and the structural model stage. . The measurement model involved specifying the causal relationships between the observed variables and the underlying theoretical constructs. For this purpose, confirmatory factor analysis using SmartPLS 2.0 was performed. As for the structural model stage, the paths or causal relationships between the underlying exogenous and endogenous constructs were specified.

In order to evaluate the convergent validity for all variables, the study tested the overall model specification by examining the Average Variance Extracted (AVE), the composite reliability, the item factor loadings (as suggested by Fornell & Larcker, 1981) and the significance of the outer loadings (Gefen & Straub, 2005). The details of the measurement properties of the model depicting curriculum connections, perceived usefulness and behavioral intent, are reported in Table 1. The results demonstrate strong evidence of convergent validity as the AVE for each construct is greater than 0.5 (Chin, 1998; Fornell & Larcker, 1981), the composite reliability for each construct is greater than 0.7, while the loadings of the items on their respective construct is greater than 0.6 (Gefen & Straub, 2005).

Based on the evidence show, it can be concluded that the items of a particular scale do indeed measure the same construct. As per Hair, Black, Babin, & Anderson (2010), there is evidence to support the existence of high internal consistency and reliability of all 3 constructs of curriculum connections, perceived usefulness and behavioral intent, based on their respective composite reliability (0.894, 0.837 and 0.906). The results also confirms the convergent validity of curriculum connections, perceived usefulness and behavioral intent to serve, as shown in the average variance extracted (AVE) scores of 0.739, 0.565 and 0.763 respectively, as per Hair et al. (2010).

TABLE 1
MEASUREMENT MODEL LOADINGS

Constructs	Items	Factor Loading	Composite Reliability	AVE
Curriculum Connections (CC)	CC1: The service learning process allowed me to link personal and social development with academic and cognitive development.	0.837	0.894	0.739
	CC2: The integration of the academic component with the service made me more conscious about my service activity and how it related, on a personal level, to the course topics.	0.850		
	CC3: The application of service to academic content had a positive impact on my learning experience.	0.890		
Attitude (AT)	AT1: Service Learning is a good activity.	0.684	0.837	0.565
	AT2: Service learning provided me with a meaningful experience.	0.836		
	AT3: I am keen to undertake service learning activities.	0.799		
	AT4: Service Learning should be made a core module in universities.	0.674		
Behavioral Intent (BI)	BII: I plan to participate in community service activities in the future.	0.880	0.906	0.763
	BI2: Service learning has enhanced my desire to become involved in my community.	0.897		
	BI3: I intend to commit myself to undertake future service learning projects.	0.843		

The discriminant validity is also examined to confirm the construct validity of the outer model for Curriculum Connections, Attitude and Behavioral Intent. Table 2 confirms that all 3 constructs meet the necessary requirements, as the square root of the AVE for each construct is larger than its correlation with the other

constructs, as recommended by Gefen and Straub (2005). Having established the construct validity of the outer model, it is assumed that the obtained results pertaining to the hypotheses testing should be valid and reliable.

TABLE 2
DISCRIMINANT VALIDITY

	<u>Behavioral Intent</u>	<u>Curriculum Connections</u>	<u>Attitude</u>
Behavioral Intent	0.873		
Curriculum Connections	0.653	0.860	
Attitude	0.588	0.653	0.752

Using the PLS bootstrapping technique with 1000 samples to analyse the structural model, Table 3 reveals that both curriculum connections and attitude are significant predictors of behavioral intent. The bootstrap procedure in PLS (Chin, 1998) generated the t-statistics, which reflects significance of the path coefficients in the structural model. Hypothesis 1 is supported as the results show that attitude has a significant positive effect on behavioral intent (standardized estimate = 0.282, $p < 0.05$). Curriculum connections is also found to have a significant positive effect on behavioral intent (standardized estimate = 0.4687, $p < 0.05$), hence supporting Hypothesis 1. This indicates that embedding service learning activities into the curriculum provides undergraduates with opportunities to strengthen their competencies, empowering them to take charge of social change in their communities. Their service-learning experience transformed their attitudes and enhanced their behavioral intent to serve the communities and bring about sustainable economic development. The model in this study also demonstrated predictive power (R-square), as curriculum connections and attitude explained 47.2% of the variance in behavioral intent.

TABLE 3
PATH ESTIMATES

	Hypotheses	Beta	S. Error	T-Statistic	Decision
H1	Attitude -> Behavioral Intent	0.468	0.103	4.543	Supported
H2	Curriculum Connections -> Behavioral Intent	0.282	0.105	2.680	Supported

CONCLUSION

This study had applied a revised version of the theory of planned behavior in predicting intention to serve the community through volunteerism. Based on the data analysis carried out using partial least square (PLS), the results show evidence that attitudes toward service learning and curriculum connections with the community have significantly influenced the behavioral intent of the undergraduates to serve the community in the future. This augurs well with the Malaysian Ministry of Higher Education's call for universities to not function as ivory towers, but to be committed to the community. Our findings on the influence of curriculum connections and attitude on behavioral intent to serve the community, is in line with the needs of the Malaysian Higher Education Blue-Print (2015) which states that:

Every graduate will have the relevant disciplinary knowledge and skills (ilmu), ethics and morality (akhlak), as well as the appropriate behaviours, mindsets, cultural, and civilisational literacy (beradab) to advance them to a high level of personal well-being. They will be global citizens with a strong Malaysian identity, ready and willing to contribute to the harmony and betterment of the family, society, nation, and global community. Such holistic, entrepreneurial, and balanced graduates are a natural extension of the goal of the Malaysian basic education system to develop values-driven Malaysians. (p.1-15)

We recommend that the policy makers and the senior management of higher education institutions emphasize on incorporating service-learning activities into the curriculum for a diverse range of academic programmes to provide undergraduates with a holistic education by allowing them to apply knowledge learned while realistically viewing social problems and fulfilling community needs. The service-learning pedagogy must be purposefully designed and have enough flexibility to accommodate dynamic situations and respond to capacity-building needs and opportunities, that are the underlying foundations for advancing a more sustainable economic development.

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