International Journal of Business and Management 1 (2): 189-196, 2017
e-ISSN: 2590-3721

DOI: 10.26666/rmp.ijbm.2017.2.29

Attitude, Subjective Norms, Perceived Behavioral Control and Intention to Share Environmental Knowledge: Accounting Students' Perspective

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Abstract: Environmental damage is largely seen as a result of business activities. This scenario triggers questions on the level of environmental awareness of business entities regarding environmental protection matters. As business entities are run by business leaders, this study seeks to examine the perception on environmental knowledge sharing behavior among accounting students, who are the future business leaders. By utilizing the components of attitude, subjective norms, perceived behavioral control and intention in the Theory of Planned Behavior (TPB), this study seeks to examine the perception of accounting students regarding their attitude, subjective norms and perceived behavioral control in sharing environmental knowledge, and their intention to share such knowledge. A total of 211 respondents were chosen as sample, and the data was analyzed using descriptive statistics. The results reveal that students have positive attitude towards environmental knowledge sharing, have good influence from their surroundings in sharing such knowledge and have good ability in sharing the environmental knowledge. Furthermore, accounting students are also keen to share environmental knowledge, shown by good intention in performing such behavior. This study contributes to the knowledge sharing behavior literature, specifically in terms of environmental knowledge sharing behavior in the academics context from students' perspective.

Key words: *Evironmental Knowledge, Knowledge Sharing Behavior, Theory of Planned Behavior*

INTRODUCTION

The importance of environmental conservation and awareness has been continuously embedded in the society. Everything we have and everything we are is intertwined with the natural environment [1], suggesting that every activity performed either by individuals or organizations can affect the surrounding environment. As the activities of humans and organizations give impact to the environment, sustainability issue has become a topic of interest globally. Therefore, there has been growing pressure particularly for business organizations to adopt more environmental friendly practices [2].

The sustainability issue involving environmental deterioration is mainly due to the lack of awareness on environmental conservation and protection. In order to enhance the awareness towards environmental sustainability, it is crucial to embed such understanding by sharing of environmental knowledge among the young minds, particularly the tertiary education students, who are the future leaders of the business organizations. As future leaders, their judgment on matters concerning environmental protection may give huge impact to the way environmental concerns should be addressed. Consequently, environmental researchers has addressed their concern on the urgency for sustainable development education to be inculcated especially in the higher education study [3]. By inculcating such idea among the tertiary education students, and making the ideas to be shared among faculty members, it is hoped that such initiative may help in addressing the global environmental issues.

In spreading environmental awareness among community and organizations, it is essential that every member play their role in environmental knowledge sharing. However, to encourage sharing of knowledge, each member should have possessed some attributes that may inculcate them to conduct the knowledge sharing behavior. Among the

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attributes that explains on why a human act or behave in such a way are the attitude, subjective norms and perceived behavioral control towards behavior, as explained by the Theory of Planned Behavior (TPB). This theory has been widely used and recognized in determining, explaining and predicting human behavior in any specific contexts of study [4]. The strength of this theory has been proven in previous research [5-7], where the three attributes strongly explains why humans intent and behave in such a way.

As the public awareness on the importance of sustainable development has increased [8-10], business organizations have put in efforts in ensuring the environmental sustainability in their operation and compliance to the corporate sustainability reporting requirements [11, 12]. Therefore, it is crucial to understand how the accounting students, who are becoming the business organization leaders, perceive the importance of environmental knowledge. Specifically, this study examines attitude, subjective norms and perceived behavioral control towards environmental knowledge sharing and the intention to share such knowledge among the accounting students. By looking at the students' perception, this study may be able to predict whether the accounting students is positively accepting the idea of sharing environmental knowledge and will be willing to share such knowledge.

This study will contribute to the literature in a number of ways. Firstly, previous research identified that knowledge sharing behavior among Malaysian tertiary education students to be low [13], therefore, the findings from this research may contribute some information in complimenting the previous findings. Secondly, one of the pillars in the Eleventh Malaysian Plan states "Pursuing green growth for sustainability and resilience"; therefore, it is important to understand the young generation's perception towards environmental sustainability in order for the pillar to work as planned. Thirdly, previous research identified education and delivery of information in either formal or informal manner can be a powerful means to promote sustainability [14]. Thus, the results from this study may enhance our understanding on the young generations' perception towards environmental sustainability.

LITERATURE REVIEWS

2.1 Environmental Knowledge

The attention towards environmental knowledge is developing consistently with the growing of sustainability awareness. Environmental knowledge is basically the understanding regarding environmental problems and issues as well as possible ways and responsible steps to solve the problems [15, 16], and is related to one's ability to identify or define environmental symbols, concepts and behaviors influence by the attitudes and behavior toward the environment [17]. The concern on the environmental issue is growing tremendously due to major environmental events and phenomena happening around the globe such as greenhouse effect, scarcity of natural resources, global warming and many more. Knowledge and insights regarding the environmental condition is very important for environmental sustainability as they provide the understanding and awareness on current environmental condition which can be obtain through continuous environmental education not limited to any group of people.

Lacking in environmental knowledge and awareness can lead to difficulty in dealing with current environmental condition which is facing destruction with the industrial revolution [8, 18]. Possessing environmental knowledge on the other hand, can influence the pro-environmental action and behavior including the transfer of knowledge and value [16]. Therefore, transfer of environmental knowledge can be a very useful mean in spreading the sustainability awareness and subsequently assists in promoting pro-environmental behavior, and if current younger generation is capable in making pro-environmental decision, future civilization will advance along the path towards sustainability [19].

Environmental education provides the knowledge to understand the interaction of human and environment and in what manner human need to manage and care for the environment towards a harmony and peaceful life [1]. Aside from the basic environmental knowledge, there are increasing concerns regarding the environmental education inclusion in the context of accounting education. It is believed that accounting has its own role in serving the public interest by contributing to the pursuit of environmental and organizational sustainability and the necessary knowledge can be obtained through the education and training system [1]. The companies operated in the environmental sensitive industries are especially expected to have extra care and concern on the social and environmental impact to the surrounding arise from their activities [3].

The inclusion of environmental component into accounting education especially in Malaysia is expected able to contribute necessary skills and knowledge to fulfill the industrial obligation. Environmental management accounting helps to exhibit the necessity for developing countries to address environmental concern, even in the urgency

of economic sustainability [20]. The extensive knowledge related to sustainability accounting and environmental challenges in industry are compulsory for improvement of environmental accounting [21]. 'Accounting for the environment' involves many components from current accounting practice such as contingent liabilities and provisions [21]. Proper understanding on the importance of environmental sustainability education in accounting could be a step forward towards sustainable development [10].

2.2 Knowledge Sharing Behavior

Effective knowledge sharing practice is a significant element of knowledge management [22]. Knowledge sharing is essentially the joint process of knowledge interchange between two or more people relating to certain topic of discussion where an effective knowledge sharing process fulfill the needs of knowledge among the parties [23]. Basically it reflects a process which useful knowledge is disseminated or traded among individuals [24].

The purpose of knowledge sharing practice is to learn and joint knowledge from the basic knowledge up to specialized knowledge in some field [25]. Knowledge sharing also can be done through any medium whether it is physical or virtual medium and it involves the participation of behaviors and perspectives with regard to the ideal type of knowledge and the extent of behavior to result in successful knowledge transfer [26]. The sharing could be done directly via direct verbal communication or indirectly via some knowledge archive such as the participation of technology in knowledge sharing [27].

Commonly, people who have the intention to share their knowledge with others aims not only to elevate their learning level and capabilities but also as an effort in conveying knowledge and information for general benefits [28]. Furthermore, knowledge sharing activities do not only mean for exchange of meaningful information but it also aids in applying the knowledge where necessary [29]. From the context of an organization, active knowledge sharing may help in improving communication and collaboration between organizational members and consequently contributes to mutual success of the organization and the people [30]. Besides, knowledge sharing practice among multiple entities helps to address critical issues concerning organizational capabilities and competency in face of increasingly instable environmental change [31]. The exchange of knowledge can happen between and among individuals or teams as well as organizational units which can either be focused or unfocused. Subsequently people benefited from the development of knowledge [32].

Knowledge sharing behavior is more about a manner or behavioral routine of sharing what they know with everybody. The organizational management can implement knowledge sharing behavior as the norms or value of the organization emphasizing on the long-term effects which would bring an opportunities for every members of the organization to be part of company's asset [33]. It is beneficial for an organization to stress on knowledge sharing behavior among organizational members which involve exchanging of information or assistance with each other and probably can contribute to effectiveness and efficiency in the organizational operation [34].

2.3 Theory of Planned Behavior

TPB is a theory that is vastly used to understand human behavior and is also considered as a critical base to understand individual's knowledge sharing behavior [22]. The theory comprises of five components, namely the attitude, subjective norms, perceived behavior control, intention and behavior. The first three components (attitude, subjective norms, and perceived behavioral control) are the cause towards intention and behavior, while perceived behavioral control and intention to share are the determinants of the behavior.

Attitude represents ones beliefs about the effects and consequences of performing the behavior instinctively by his or her evaluation of these actions, subjective norms represents a person's sensitivity on what most people who are important to him or her think he should or should not do the behavior in concern and lastly, perceived behavioral control which reflects on a person's perceived ease or difficulty in performing certain behavior [2]. Attitude is formed from a collection of underlying behavioral beliefs about the expected outcomes of behavior and the favorable or unfavorable evaluation of these outcomes. In the context of environmental knowledge sharing, it is reflected on the favorable or unfavorable belief towards knowledge sharing. Prior studies show positive influence of attitude towards pro-environmental performance [35-37].

Subjective norms refer to an individual's perception of the social pressure from important people around to perform or not to perform a specific behavior of interest. In the context of environmental knowledge sharing behavior, subjective norms reflects and individual's perceptions of whether the knowledge sharing behavior in concern is approved or expected by important people around them. Numerous studies

support the influence of subjective norms towards behavior [4, 5, 25].

Perceived behavioral control (PBC) refers to the perceived ease or difficulty of performing a behavior in question and a personal sense of control over performing it [4]. Theoretically, PBC construct in TPB have multiple influences. Firstly, similar with attitude and subjective norms construct, PBC influence the intention. Secondly, both intention and PBC influence the actual behavior. The effect of PBC on intention and behavior are empirically proven from past studies [4-6, 13, 23, 27, 38].

Behavioral intention is the motivational factor that show individual's willingness to perform a behavior [4]. As per the theory, intention is the primary determinant of behavior where justify whether an individual carry out what he or she intends to do. The existence of intention towards particular behavior indicated the readiness to perform the behavior in concern. The relationship of behavioral intention and behavior is supported in the prior studies [4-6, 13, 23, 27, 39].

METHODOLOGY

The sample of this study comprises of 211 students of Tunku Puteri Intan Safinaz School of Accountancy, Universiti Utara Malaysia (TISSA-UUM), who were being chosen randomly. The sample sizes of larger than 30 and less than 500 are appropriate for most research [40, 41], therefore, the sample selected might be able to provide insights and information needed in performing the study.

This study uses self-administered questionnaires method for data collection. The main advantage of self-administered questionnaire is that the researcher can collect all the completed responses within a short period of time, can assist to clarify any doubts that the respondents might have and providing basic information regarding the topic [40]. The questionnaire is divided into two sections.

The first section of the questionnaire consists of the demographic variables of the respondents, such as gender, age, race, program enrolled and year of study, followed by the level of environmental knowledge possessed by the respondents and the source of environmental information. The second section of the questionnaire relates to the perception of the respondents on environmental knowledge sharing behavior, such as the attitude towards environmental knowledge sharing, subjective norms towards environmental knowledge sharing, perceived behavioral control on environmental knowledge sharing and the intention to share environmental knowledge. In this section, respondents were required to rank their perception according to 5-point Likert Scale (1 = strongly disagree, 5 = strongly agree).

ANALYSES, RESULTS AND DISCUSSIONS

This study employs descriptive analysis in producing the results. The analysis is divided into two parts; (1) the demographic analysis, and (2) the perception of accounting degree students with relations to their attitude, subjective norms and perceived behavioral control towards environmental knowledge sharing and intention to share environmental knowledge.

Table 1 depicts the demographic results of the respondents. The majority of accounting degree students in TISSA-UUM is female. The age is between 21-23 years old, thus consistent to the respondents being the second and third year students. The majority is Malay, from Bachelor of Accounting (Hons) program, and most of them possess High School Certificate (STPM). In term of environmental knowledge, 87.7% of the respondents admit that they possess such knowledge, and mostly obtain environmental knowledge through social media, news, friends and lectures. This scenario explains that students obtain environmental knowledge through both formal and informal mediums [19].

Table 2 depicts the descriptive results of the accounting degree students' perception regarding their attitude, subjective norms, perceived behavioral control and intention to share environmental knowledge. For attitude, the overall mean score is 4.22, which denotes respondents have positive attitude towards environmental knowledge sharing. For subjective norms, the mean score is 3.79. Nevertheless, the score is almost likely to indicate that respondents agree that the people in their surroundings have positive influence on them in sharing the environmental knowledge. In term of perceived behavioral control, the respondents are more likely to agree that they have the ability to share environmental knowledge, where the overall mean score marks 3.53. Finally, with the mean score of 3.85, respondents are more likely to agree that they have the intention to share environmental knowledge.

Table 1. Descriptive Statistics - Demography

Demographic Variables		Frequency	Percentage (%)
Gender	Male	43	20.4
	Female	168	79.6
Age	20 years old and below	53	25.1
	21-23 years old	134	63.5
	Above 23 years old	24	11.4
Race	Malay	129	61.1
	Chinese	52	24.6
	Indian	21	10.0
	Others	9	4.3
Program	Bachelor of Accounting (Hons)	151	71.6
	Bachelor of Accounting (Information System) (Hons)	60	28.4
Year of Study	First year	82	38.9
	Second year	52	24.6
	Third year	65	30.8
	Fourth year	12	5.7
Highest Academic Qualification	Matriculation	24	11.4
	High School Certificate (STPM)	118	55.9
	Diploma	69	32.7
Environmental Knowledge	Yes	185	87.7
	No	26	12.3
Source of Environmental Knowledge	Social Media	176	83.4
	News	123	58.3
	Friends	80	37.9
	Lectures	69	32.7
	Family	7	3.3
	Books	2	0.01

CONCLUSIONS

Environmental knowledge and sustainability has become a growing concern in business world. Therefore, it is important to assess the perception of accounting students, who are the future leaders of business organizations, towards environmental knowledge sharing. In Malaysia, representing developing nations, numerous efforts have been taken to promote and enhance environmental knowledge sharing among Malaysian especially in educational context. Aside from formal learning, environmental knowledge sharing can be a useful mean in spreading the valuable environmental knowledge.

This study has accomplished the objectives in determining the perception of accounting students towards sharing environmental knowledge. Specifically, this study probes the attitude, subjective norms and perceived behavioral control towards environmental knowledge sharing among accounting students and their intention to share such knowledge. The results reveal that students have positive attitude towards environmental knowledge sharing, have good influence from their surroundings in sharing such knowledge and have good ability in sharing the environmental knowledge. Furthermore, accounting students are also keen to share environmental knowledge, shown by good intention in performing such behavior. The findings thus provide preliminary insights on the knowledge sharing behavior among accounting students, thus may enable them to fulfill the role of an accountant who promotes organizational sustainability.

This study is hoped to contribute to the literature of knowledge sharing behavior and environmental sustainability. The findings is hoped to develop and increase environmental awareness by promoting sharing of knowledge among Malaysians representing the developing countries, so that the current state of environment can be sustained for a longer future. Prospective research may want to examine cause and effect relationship involving the components of TPB in the context of environmental knowledge sharing behavior.

Table 2. Descriptive Statistics – Perception on attitude, subjective norms, perceived behavioral control and intention to share environmental knowledge

Attitude	Min	Max	Mean	SD
I think sharing environmental knowledge is an enjoyable experience	2.00	5.00	4.00	0.68
I think sharing environmental knowledge is a good idea	2.00	5.00	4.21	0.61
I think sharing environmental knowledge is valuable	2.00	5.00	4.26	0.63
I think sharing environmental knowledge is a wise move	1.00	5.00	4.05	0.75
I think sharing environmental knowledge is not harmful	3.00	5.00	4.52	0.66
I think sharing environmental knowledge is beneficial	3.00	5.00	4.28	0.62
Overall score	2.83	5.00	4.22	0.45
Subjective Norms				
My close friend thinks that I should share environmental knowledge	1.00	5.00	3.81	0.83
People important to me thinks that I should share environmental knowledge	2.00	5.00	3.73	0.78
People who influence my behavior thinks that I should share environmental knowledge	2.00	5.00	3.76	0.79
People whose opinion I value would approve my environmental knowledge sharing	2.00	5.00	3.78	0.74
It is expected of me to share my environmental knowledge	2.00	5.00	3.74	0.75
People who are important to me share their environmental knowledge with others	2.00	5.00	3.93	0.78
Overall score	2.00	5.00	3.79	0.60
Perceived Behavioral Control				
I am confident that I can share environmental knowledge	1.00	5.00	3.62	0.79
I can see myself as capable of sharing environmental knowledge	1.00	5.00	3.56	0.76
I have resources, time and willingness to share environmental knowledge	1.00	5.00	3.38	0.80
There is likely to be plenty of opportunities for me to share environmental knowledge	2.00	5.00	3.52	0.79
It is mostly up to me whether or not to share environmental knowledge	1.00	5.00	3.54	0.76
I am able to share environmental knowledge easily	2.00	5.00	3.54	0.79
Overall score	2.00	5.00	3.53	0.57
Intention to Share				
I intend to share environmental knowledge	3.00	5.00	3.91	0.69
I plan to share environmental knowledge with friends	2.00	5.00	3.81	0.76
I will consider to share environmental knowledge with my friends	2.00	5.00	3.80	0.67
If given opportunity, I would share my environmental knowledge	2.00	5.00	3.95	0.71
I intend to share my environmental knowledge in near future	2.00	5.00	3.78	0.78
I am likely to share my environmental knowledge with colleagues in future	2.00	5.00	3.85	0.77
Overall score	2.17	5.00	3.85	0.60

ACKNOWLEDGEMENT

This research is funded by Fundamental Research Grant Scheme (FRGS) (SO Code: 13603)

REFERENCES

[1] Gray, R. and Collison, D., "Can't See the Woods for the Trees, Can't See the Trees for the Numbers? Accounting Education, Sustainability and the Public Interest," *Critical Perspectives on Accounting*, vol. 13, pp. 797-836, 2002.

[2] Dezdar, S., "Green Information Technology Adoption: Influencing Factors and Extension of Theory of Planned Behavior," *Social Responsibility Journal*, vol. 13, no. 2, pp. 292-306, 2017.

[3] Amran, A., Abdul Khalid, S. N., Abdul Razak, D., and Haron, H., "Development of MBA with Specialization in Sustainable Development: The Experience of Universiti Sains Malaysia," *International Journal of Sustainability in Higher Education*, vol. 11, no. 3, pp. 260-273, 2010.

[4] Ajzen, I., "The Theory of Planned Behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, pp. 179-211, 1991.

[5] Chennamaneni, A., Teng, J. T. C., and Raja, M. K., "A Unified Model of Knowledge Sharing Behaviours: Theoretical Development and Empirical Test," *Behaviour and Information Technology*, vol. 31, no. 11, 2012.

[6] Tohidinia, Z. and Mosakhani, M., "Knowledge Sharing Behaviour and Its Predictors," *Industrial Management & Data Systems*, vol. 110, no. 4, pp. 611-631, 2009.

[7] Tsai, M., Chen, K., and Chien, J., "The Factors Impact of Knowledge Sharing Intentions: the Theory of Reasoned Action Perspective," *Quality and Quantity*, vol. 46, no. 5, pp. 1479-1491, 2012.

[8] Aminrad, Z., Sayed Zakaria, S. Z., Hadi, A. S., and Sakari, M., "Environmental Education in Malaysia, Progress and Challenge Ahead," *Life Science Journal*, vol. 9, no. 2, pp. 1149-1154, 2012.

[9] Ballantyne, R. and Packer, J., "Promoting Environmentally Sustainable Attitudes and Behavior through Free-Choice Learning Experiences: What is the State of the Game?," *Environmental Education Research*, vol. 11, no. 3, pp. 281-295, 2006.

[10] Mohammad, N., "Need to Implement the Environmental Accounting Education for Sustainable Development: An Overview," *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, vol. 6, no. 3, pp. 354-361, 2012.

[11] Lee, T. M. and Hutchison, P. D., "The Decision to Disclose Environmental Information," *Advances in Accounting*, vol. 21, no. 5, pp. 83-111, 2005.

[12] Nik Ahmad, N. N. and Sulaiman, M., "Environment Disclosure in Malaysia Annual Reports: A Legitimacy Theory Perspective," *International Journal of Commerce and Management*, vol. 14, no. 1, pp. 44-58, 2006.

[13] Ramayah, T., Yeap, J. A. L., and Ignatius, J., "An Empirical Enquiry on Knowledge Sharing Among Academicians in Higher Learning Institutions," *Minerva*, vol. 51, no. 2, pp. 131-154, 2013.

[14] Sales de Aguiar, T. R. and Paterson, A. S., "Sustainability on Campus: Knowledge Creation through Social and Environmental Reporting," *Studies in Higher Education*, vol. February 2017, pp. 1-13, 2017.

[15] Kaufmann, H. R., Panni, M. F. A. K., and Orphanidou, Y., "Factors Affecting Consumers' Green Purchasing Behavior," *Amifiteratru Economis*, vol. XIV, no. 31, pp. 50-69, 2012.

[16] Zsoka, A., Szerenyi, Z. M., Szechy, A., and Kocsis, T., "Greening Due to Environmental Education? Environmental Knowledge, Attitudes, Consumer Behavior and Everyday Pro-Environmental Activities of Hungarian High School and University Students," *Journal of Cleaner Production*, vol. 48, pp. 128-138, 2013.

[17] Laroche, M., Bergeron, J., and Barbaro-Forleo, G., "Targeting Consumers Who Are Willing to Pay More Environmentally Products," *Journal of Consumer Marketing*, vol. 18, no. 6, pp. 503-520, 2001.

[18] Hausbeck, K. W., Milbrath, L. W., and Enright, S. M., "Environmemtal Knowledge, Awareness and Concern," *Journal of Environmental Education*, vol. 24, no. 1, pp. 27-34, 1992.

[19] Vicente-Molina, M. A., Fernandez-Sainz, A., and Izagirre-Olaizola, J., "Environmental Knowledge and Other Variables Affecting Pro-Environmental Behaviour: Comparison of University Students from Emerging and Advanced Countries," *Journal of Cleaner Production*, vol. 61, pp. 130-138, 2013.

[20] Burrit, R. L., "Environmental Management Accounting: Roadblocks on the Way to the Green and Pleasant," *Business Strategy and Environment*, vol. 13, pp. 13-32, 2004.

[21] Bebbington, J., Gray, R., Thomson, I., and Walters, D., "Accountants' Attitudes and

Environmentally-Sensitive Accounting," *Accounting and Business Research*, vol. 24, no. 94, pp. 109-120, 1994.

[22] Aliakbar, E., Md Yusoff, R., and Nik Mahmood, N. H., "Determinants of Knowledge Sharing Behavior," presented at the 2012 International Conference on Economics, Business and Marketing Management, Singapore, 2012.

[23] Isika, N. U., Ismail, M. A., and Ahmad Khan, A. F., "Knowledge Sharing Behaviour of Postgraduate Students in University of Malaya," *The Electronic Library*, vol. 31, no. 6, pp. 713-726, 2013.

[24] Onaifo, D. and Quan-Hasse, A., "Potentials and Limitations of Cyber Knowledge Brokers as Knowledge Providers," in *Encyclopedia of Information Science and Technology*, M. Khosrow-Pour, Ed. 3rd ed. Pennsylvania, USA: IGI Global, 2015.

[25] Wu, Y. and Zhu, W., "An Integrated Theoretical Model for Determinants of Knowledge Sharing Behaviours," *Kybernetes*, vol. 41, no. 10, pp. 1462-1482, 2012.

[26] Stenius, M., Hankonen, N., Ravaja, N., and Haukkala, A., "Why Share Expertise? A Closer Look at the Quality of Motivation to Share or Withhold Knowledge," *Journal of Knowledge Management*, vol. 20, no. 2, pp. 181-198, 2016.

[27] Bock, G. and Kim, Y., "Breaking the Myths of Reward: An Exploratory Study of Attitudes About Knowledge Sharing," in *Pacific Asia Conference on Information System*, Seoul, Korea, 2001.

[28] Collins, B. and Moonen, J., "Contribution-Oriented Pedagogy," in *Encyclopedia of Distance Learning*, P. Rogers, G. Berg, J. Boettcher, C. Howard, L. Justice, and S. K, Eds. 2nd ed. Pennsylvania, USA: IGI Global, 2009.

[29] Law, W. K., "Cross-Cultural Challenges for Information Resources Management," in *Encyclopedia of Information Science and Technology*, M. Khosrow-Pour, Ed. 2nd ed. Pennsylvania, USA: IGI Global, 2009.

[30] Vat, K. H., "E-Portfolio and Pedagogical Change for Virtual Universities," in *Encyclopedia of Networked and Virtual Organizations*, G. Putnik and M. Cruz-Cunha, Eds. Pennsylvania, USA: IGI Global, 2008.

[31] Fang, Y. and Dutta, D. K., "Explaining Organizational Virtuality: Insights from the Knowledge-Based View," in *Handbook of Research on Virtual Workplaces and the New Nature of Business Practices*, P. Zemliansky and K. St Amant, Eds. Pennsylvania, USA: IGI Global, 2008.

[32] King, W. R. and He, J., "Knowledge Sharing," in *Encyclopedia of Knowledge Management*, D. Schwartz and D. Te'eni, Eds. 2nd ed. Pennsylvania, USA: IGI Global, 2011.

[33] Zin, A. Z., "Requirement for Knowledge Sharing Behavior: A review of Empirical Findings," *Journal of Asian Scientific Research*, vol. 3, no. 6, pp. 517-526, 2013.

[34] Connelly, C. E. and Kelloway, E. K., "Predictors of Employees' Perceptions of Knowledge Sharing Cultures," *Leadership and Organization Development Journal*, vol. 24, no. 5, pp. 294-301, 2003.

[35] Chen, M. F., "Extending the Theory of Planned Behavior Model to Explain People's Energy Savings and Carbon Reduction Behavioral Intentions to Mitigate Climate Change in Taiwan: Moral Obligation Matters," *Journal of Cleaner Production*, vol. 112, pp. 1746-1753, 2016.

[36] Chen, M. F. and Tung, P. J., "Developing an Extended Theory of Planned Behavior Model to Predict Consumers' Intention to Visit Green Hotels," *International Journal of Hospitality Managment*, vol. 36, no. 221-230, 2014.

[37] Yadav, R. and Pathak, G. S., "Young Consumers' Intention Towards Buying Green Products in a Developing Nation: Extending the Theory of Planned Behavior," *Journal of Cleaner Production*, vol. 135, pp. 732-739, 2016.

[38] Abdur-Rafiu, M. A. and Opesade, A. O., "Knowledge Sharing Behaviour of Academics in The Polytechnic Ibadan," *Library Philosophy and Practice*, vol. 1287, 2015.

[39] Jolalee, A., Md Nor, K., Khani, N., and Md Yusoff, R., "Factors Affecting Knowledge Sharing Intention Among Academic Staff," *International Journal of Educational Management*, vol. 28, no. 4, pp. 413-431, 2014.

[40] Cavana, R. Y., Delahaye, B. L., and Sekaran, U., *Applied Business Research*. Australia: John Wiley & Sons, Ltd, 2000.

[41] Roscoe, J. T., *Fundamental Research Statistics for the Behavioral Sciences*, Second ed. USA: Holt, Rinehart and Winston, Inc, 1975.