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Perceived Organizational Support, Knowledge Creation, Knowledge Transfer, and Learning Performance: An Empirical Study of Higher Education Institutions in Siem Reap, Cambodia

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Abstract

The study investigated the structural relationships among perceived organizational support, knowledge creation, knowledge transfer, and students' learning performance in Higher Education Institutions and then extended the mediating effect of knowledge creation to explain the relationship between perceived organizational support and knowledge transfer. Knowledge transfer served as mediator between knowledge creation, perceived organizational support, and students' learning performance. The target samples were drawn from six Higher Education Institutions in Siem Reap, Cambodia. A total of 763 respondents were used as the research sample. Structural equation modeling and Sobel's were employed to test the proposed research framework. The results indicated that all the direct path relationships among the research variables were statistically significant. Knowledge creation and knowledge transfer, moreover, were confirmed as mediation the relationship among research constructs. Direct effect

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of knowledge creation was positively significant to students' learning performance, whereas expected perceived organizational support was not found to directly effects on students' learning performance. The findings of this study are used to fulfill the gap of literature and empirical study.

Keywords: Perceived Organizational Support; Knowledge Creation; Knowledge Transfer; Learning Performance; Higher Education Institutions

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Introduction

In the globalized labor market, Higher Education Institutions (HEIs) play a key role in producing high quality of human resources to meet the needs of labor market. HEIs are also a place for providing up-to-date knowledge and skills through teaching and learning process, research, and practices (Ahmad, Bakar, Yahya, Yusof, & Zulkifli, 2011). Nonetheless, there is a major challenge for the upcoming years of students' learning performance, which demonstrates mismatch between the labor market needs in terms of knowledge, skills, and critical thinking and the current products on the market (MoEYS, 2016). Similarly, the skill gaps between human resource that industries and businesses are looking for and what HEIs in Cambodia, whether academic or vocational training, are producing is widening almost every year (Khieng, Srinivasa, & Chhem, 2015). Accordingly, the process of transferring knowledge may result in large gaps of knowledge and skills because of lecturers' and students' abilities, instructional methods, and resources employed. It is crucial that HEIs need to have a better understanding of the labor market needs and build a close relationship with industries in order to design courses, which are relevant market-driven skills. Furthermore, students' learning performance is also interrelated with knowledge creation and knowledge transfer of lecturer. According to Song, Bae, Park, and Kim (2013), organizations especially education institutions need to understand how to establish organizational environment that encourages and supports employee to involve in knowledge creation and knowledge-transferred activities. To achieve the goals of organization and improve students' learning performance, it is essential for lecturer to generate innovative knowledge that improves work processes and makes teaching and learning activity in schools (McCharen, Song, & Martens, 2011; Song et al., 2013).

To match the rapidly changing labor market, HEIs have been striving to develop their education systems and have made great efforts in motivating their lecturer to become high competent-knowledgeable providers. This has been considered as knowledge assets of institutions, which improve higher quality of education and produce competitive graduates for labor market. Knowledge assets are seen as the foundations for forming organizational capabilities; thus the most vital operational principle for an organization is to create and apply knowledge assets (Nonaka & Takeuchi, 1995). In this study, HEIs were employed as perceived organizational support (POS) and encourage lecturer to involve in knowledge creation and knowledge-transferred activities that lead to better students' learning performance. Similarly, scholars in organizational studies addressed

that a supportive organizational climate is critical for promoting innovative ideas and increasing knowledge creation and knowledge-transferred activities among employees (Nonaka, 1994; Song et al., 2013; Song, Kolb, Lee, & Kim, 2012). Perceived organizational support primarily lies in hands of the institutional leader and lecturer. Students often assign human like qualities to the institutions they study for, and those qualities are often related to how they are treated by their lecturers. When students are praised, rewarded, and supported, there is a perceived organizational support and their learning performance is typically better. Nonetheless, when a leader is derogatory or does not address problems or complaints, students often feel that the institution does not care about complaints or give them value. Therefore, there is a need to build and enhance perceived organizational support techniques of the lecture to lecturers within an institution.

To have a better education system, an organization has to reform transfer knowledge in line with the labor market needs and motivates lecturer to improve knowledge and to innovate how to handle knowledge to learners. In this study, we attempt to examine the roles of perceived organizational support in relation with facilitation skills of knowledge transfer to students and the mediating roles of knowledge creation between perceived organizational support and knowledge transfer. Moreover, knowledge transfer facilitates as mediation on relationship between knowledge creation and learning performance; organizational support and learning performance in HEIs context, Cambodia.

Literature Review and Hypotheses Development

Relationships between Perceived Organizational Support (POS), Knowledge Creation (KNC), and Knowledge Transfer (KNT)

Perceived organizational support (POS) refers to employees' perception concerning the extent to which the organization values their contribution and cares about their well-being (Eisenberger, Hungtington, Hutchison, & Sowa, 1986). Similarly, perceived organizational support represents an indispensable part of the social-exchanged relationship between employees and employers, which implies what an organization has done for them, at least in the employees' belief. If an employee receives a perceived organizational support, she/ he is likely to create new knowledge and later transfers that knowledge within the unit or in an organization as a whole. There are multiple mechanisms, therefore, that an organization would deploy to build employees' beliefs by providing organizational cares and valuing their contributions. In other words, perceived organizational support is also seen as an assurance that aids will be available from the organization when it is needed to carry out one's job effectively and to deal with stressful situations (George, Reed, Ballard, Colin, & Fielding, 1993).

Knowledge creation (KNC) is a continuous transfer, combination, and conversion of different types of knowledge where users practice, interact and learn (Nonaka, 1994) and a product of an interplay between knowledge and knowing (Cook & Brown, 1999), whereas knowledge transfer (KNT) is the process through which one unit such as department, group, team, division etc. is affected by the experience of another and is manifested through changes in the knowledge or performance of the recipient units, which is demonstrated by measuring changes in performance (Argote & Ingram, 2000). The

shift in condition between the possession of knowledge and the act of knowing - something that comes about through practices, activities, and interactions -is the driving force in the creation of new knowledge. Knowledge creation in an organization refers to transforming individuals'/ HR skills and knowledge into the knowledge embedded in that organization by means of proper transformation mechanisms. According to Nonaka and Takeuchi (1995), knowledge is a spiral that encompasses the stages of socialization, combination, externalization and internalization. Knowledge creation is beneficial to an organization, which enables and encourages employees to share knowledge and create a suitable working environment. It is essential for an organization to provide systems that support the process of work and provide knowledge workers with timely, relevant information and data. Knowledge creation is comprised of two aspects: Epistemology and Ontology (Nonaka, 1994). Ontology refers to the concept in which only individuals could create knowledge and thus an organization cannot create knowledge by itself without individuals. An organization needs support and creative individuals to provide a proper environment and allow individuals to create knowledge. This henceforth indicates that organizations needs to support creative individuals or provide a proper environment and allow individuals to create knowledge and transfer the knowledge to members or organization.

Organizational support theory (OST) stated that employees develop perceived organizational support in order to meet needs for approval, esteem and affiliation, and to assess the benefits of increased work effort. Behavioral outcomes of perceived organizational support include increases in in-role and extra-role performance and decreases in withdrawal behaviors such as absenteeism and turnover (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002; Shore & Shore, 1995). In other words, perceived organizational support is known as facilitating teacher work's engagement (Song et al., 2013). It mean that when teachers recognize that they are valued and supported by staff and administrators, they are more likely to spend their time, energy, and knowledge to develop innovative curricula or teaching strategies that then improve student performance (Rutter & Jacobson, 1986). Organizational support theory is the norm of reciprocity, which applied to the employee-employer relationship, suggests that employees who receive favorable treatment from the employee organization, such as higher levels of perceived organizational support, would feel an obligation that they should care about the organization's benefits and contribute to the achievement of organizational goals (Gouldner, 1960). Perceived organizational support would be valued by employees for meeting socio emotional needs, providing an indication of the organization's readiness to reward increased work effort, and indicating the organization's inclination to provide aid when needed to carry out one's job effectively (Eisenberger et al., 1986; Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002). Scholars of organizational behavior stated that a supportive organizational climate is critical to promoting innovative ideas, increasing knowledge creation and transfer activities among employees (Nonaka, 1994; Song et al., 2013; Song et al., 2012). According to Eisenberger et al. (2002), a supportive climate has also been found to positively affect the performance of organizational members in their tasks. In knowledge conversion theory, the importance of leadership and participation of employees in organizational knowledge creation and transfer activities are particularly emphasized (Song et al., 2012). Similarly, Song et al. (2013); Nonaka and Takeuchi (1995); and Bae, Song, Park, and Kim (2013) suggested that in the knowledge creation process, leaders can transfer organizational values and

visions, lead open dialogues to solve problems, and encourage employees to engage in the process of knowledge creation. Additionally, leaders may develop employees as knowledge activists who make continuous efforts to facilitate knowledge creation across the whole organization (Allred, 2001; Von Krogh, Nonaka, & Ichijo, 1997). That is, leader of organization can contribute to improving employees' commitment in knowledge creation and transfer. Employees are more likely to work in collaboration with colleagues and innovates work processes for knowledge creation and then transfer the new knowledge to members or teamwork in organization (Prusak & Matson, 2006; Von Krogh, Ichijo, & Nonaka, 2000).

Many scholars studied the influence perceived organizational support in the different context. Karatepe (2015) studied about the relationship between perceived organizational support and affective organizational commitment in the hospitality sector in Romania, and the result of study shown that it was positively and significantly related. Song et al. (2013) found that perceived school support (PSS) has positively significant correlation on transformational leadership and teacher's work engagement, but not significant impact on knowledge creation practices at career and technical education teacher in United States. In the educational sector, a systematic and supportive school climate has been reported as one of the most influential factors for increasing teachers' performance levels, which in turn positively affect students' achievement (McCharen et al., 2011).

At the heart of organization, perceived organizational support encourages employees to be involved in more collaborative and dynamic knowledge creation and transfer (Dutrénit, 2000; George & Brief, 1992; Yoon, Song, & Lim, 2009). According to Lee (2007) expressed that a supportive culture of the school is imperative in enhancing teachers' collaboration and knowledge practices. In this study, concept of perceived organizational support was employed to evaluate the HEIs context by students, which influences on reaching mission and goals of institutions. The Social change theory (SCT) and Knowledge conversion theory (KCT) can help to explain the relationship between perceived organizational support, knowledge creation, and knowledge transfer as well in HEIs setting. Based on discussion above, the first, second, and third hypotheses were proposed in this study as follows:

Hypothesis 1: Perceived organizational support is positively significant influence on knowledge creation.

Hypothesis 2: Perceived organizational support is positively significant influence on knowledge transfer.

Hypothesis 3: Knowledge creation is positively significant influence on knowledge transfer.

Relationships between Knowledge Transfer (KNT) and Learning Performance (LEP)

Knowledge transfer (KNT) can be said to be a means by which expertise, knowledge, skills and capabilities are transferred from the knowledge-base, such as university, college, and school to the students and employee who need the knowledge for their

workplace, namely profit and non-profit company/ organizations (Wambui, Wangombe, & Muthura, 2013). In short we can say it is the interphase between universities and businesses (Anatan, 2013). It involves the commercialization of skills and expertise possessed by higher education. Similarly, learning transfer is the application of skill, knowledge or understanding to resolve a novel problem or situation that happens when certain conditions are fulfilled (WIKIPEDIA, 2017).

In the educational context, learning refers to a process that continues lifelong in the lives of human beings as long as there is desire and motivation to learn. Students' learning can be stated all about mastering new skills, and developing a greater understanding about things not known to us and also about making a better sense of their surroundings, whereas performance is a goal that is achievable through learning and output that can be judged and evaluated, and students strive to avoid negative assessments about their performance and desire for positive comments. All of these results, student can be transferred skills and knowledge from lectures, institutions and persons around. Accordingly, learning performance is the outcome of learning that students strive to become smarter and sharper, and not just memorizing concepts to obtain better grades in exams and also can be received the job and recognized by their workplace or organization.

Most scholars studied about knowledge transfer and link to knowledge application, organizational learning (Ramirez & Kumpikaite, 2012), knowledge ambiguity, organizational size, organizational decentralization, absorptive capacity, structural dimension, relational dimension, cognitive dimension, level of uncertainty (Anatan, 2013), but no one research about knowledge transfer links to learning performance. In this study, we will evaluate how knowledge transfer effect on students' learning performance and the result is fulfilled the gap of literature and empirical study. Based on this rationale, the fourth hypothesis is proposed as following:

Hypothesis 4: Knowledge transfer is positively significant influence on learning performance.

Mediating Effects of Knowledge Creation (KNC) and Knowledge Transfer (KNT)

Scholars studied by using knowledge creation and knowledge transfer as mediation effects, such as Bae, Song, and Kim (2012) researched the mediation effect of teacher's knowledge creation practice on relationship between learning organizational culture and level of teacher's creativity in Career Technical Education; the mediating effect of knowledge creation practices in the relationship between organizational procedural justice and team performance (Kang, Song, & Kim, 2012); knowledge transfer effect facilitates as mediation the correlation between knowledge transfer approach, active knowledge transfer, and knowledge innovation (Yuan, Wu, & Lee, 2012). In this study, hypotheses H_1 and H_3 proposed that perceived organizational support is positively significant influence on knowledge creation and knowledge creation is positively significant impact on knowledge transfer. It links the exogenous variable of perceived organizational support to mediator of knowledge creation and mediator of knowledge creation to the endogenous variable of knowledge transfer. In addition, hypothesis H_2 suggests that perceived organizational support has affected the knowledge transfer. If the

hypotheses are examined as a set, we specify a string of relationships from perceived organizational support to knowledge creation and from knowledge creation to knowledge transfer. This means that the relationships between perceived organizational support and knowledge transfer are hypothesized to be indirect, with no direct effects. Therefore, from the process-oriented point of view, knowledge creation plays the role of intermediate variable to mediate the relationship between independent variables of perceived organizational support and dependent variable of knowledge transfer. Accordingly, the fifth hypothesis is developed as following:

Hypothesis 5: Knowledge creation is positively significant mediated the relationship between perceived organizational support and knowledge transfer.

Moreover, hypothesis H_2, H_3 and H_4 link the relationship (1) from knowledge creation to knowledge transfer and from knowledge transfer to learning performance (2) from perceived organizational support to knowledge transfer and from knowledge transfer to learning performance, respectively. This means that the relationship between knowledge creation and learning performance; perceived organizational support and learning performance are hypothesized to be indirect. Therefore, knowledge transfer plays the role of intermediate variable to mediate the relationships between independent variables of knowledge creation; perceived organizational support and dependent variable of learning performance, respectively. The discussion suggests that the relationships among variables are mediated by knowledge transfer. While perceived organizational support and knowledge creation provides basic elements for achieving benefits in the relationship, knowledge transfer can convert perceived organizational support and knowledge creation into knowledge assets shared by institutional staff and members to achieve learning performance of students. Based on discussion above, the sixth and seventh hypotheses are developed as following:

Hypothesis 6: Knowledge transfer is positively significant mediated the relationship between knowledge creation and learning performance.

Hypothesis 7: Knowledge transfer is positively significant mediated the relationship between perceived organizational support and learning performance.

Methods

Research Model

Figure 1 indicates the research model and relationships among the study constructs. The relationships shown in the research model are developed based on the literature review. The model proposes that perceived organizational support increases the knowledge creation and knowledge transfer. According to the model, knowledge creation enhances knowledge transfer and learning performance. Such relationships suggested that knowledge creation mediates the effect of perceived organizational support and knowledge transfer. In addition, the model contended that knowledge transfer acts as an influenced mediator between perceived organizational support and learning performance, and knowledge creation and learning performance, respectively.

Overview of Research Process

During a three-month period in 2017, we collected data from HEIs in Siem Reap Province, Cambodia. To test the hypotheses of this study, the four sets of research constructs are measured: perceived organizational support, knowledge transfer, knowledge creation and learning performance. We specifically asked five experts to assess and revise the appropriateness of the research items and to pre-test the reliability before distributing the questionnaire to the HEIs.

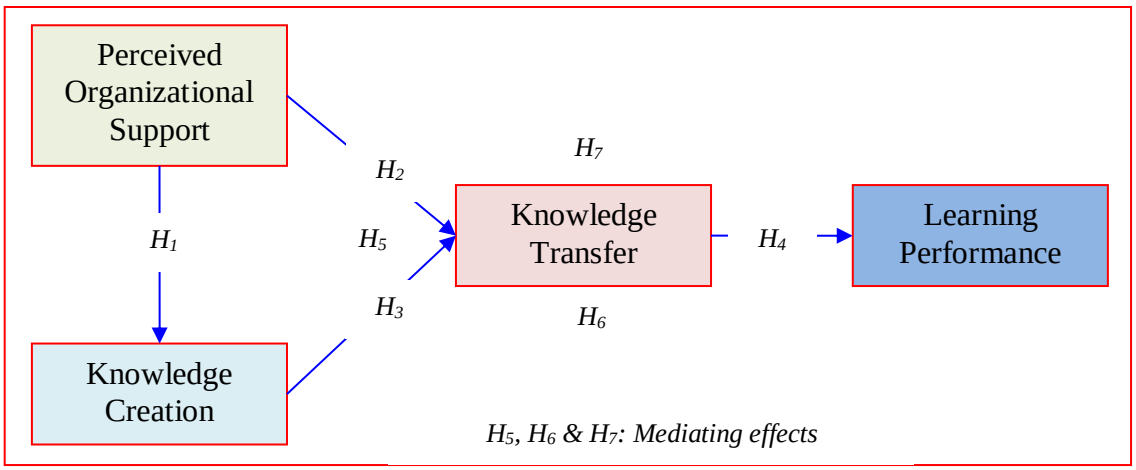

Figure 1 Conceptual framework of the research

Measurement

In this study, students of each sample HEIs were asked to evaluate the institutions and lecturer who providing the educational services. The measurement of questionnaire items was translated from English to Khmer language (Cambodian) and back translated to English, with the help of two bilingual expert to ensure the validate the meanings of measurement items (Brislin, 1980). The standard scales were used by measured on a 7-point Liker scale ranging from "1= strongly disagree to 7= strongly agree". The Cronbach's Alpha reliability for this study is addressed in Table 1 and four researches measurement and their items describing as follow:

Perceived organizational support (POS): Eight-item of POS's questionnaire was used, which related to the statement: "My University cares about my study."

Knowledge creation (KNC): Seven-item of KNC's questionnaire was operated, which related to the statement: "My University has HRM system motivates the sharing of knowledge between each other."

Knowledge transfer (KNT): We used five items of KNT's questionnaire for this study, which related to the statement: "I have opportunities to obtain success experience from other lecturers."

Learning performance (LEP): We measured using four-item of LEP's questionnaire, which related to the statement: "I have the enough skills after learning in line with the program."

Sample Selection Procedure

Data was gathered from students who are studying at Universities located in Siem Reap Province, Cambodia. The questionnaires were distributed to six Higher Education Institutions after conducting a session with each institution's representative to clarify the survey process for the students. Accordingly, very institution representative was asked to distribute the questionnaires to their students by using convenience sampling technique (Cooper & Schindler, 2014). The students were queried to respond the questions about their perception of access to perceived organizational support, knowledge transfer, knowledge creation and learning performance. Out of 1,000 questionnaires, 763 were usable. The effective responsive rate or yield was 76.30 percent (763/1,000). As recommended by (Saunders, Saunders, Lewis, & Thornhill, 2011) given that the appropriate response rate for "hand-delivered" questionnaire has been found to range between 30 percent and 50 percent, this response rate was viewed as adequate.

Data Analysis Process

In this study, factor analysis and reliability tests are used to purify the measurement scales and identify their dimensionality of the research constructs. Then, a two-step approach was used (Anderson & Gerbing, 1988). A first order-factor model of confirmatory factor analysis (CFA) was adopted to examine four individual constructs and results indicated that standardized loading for all items exceeded .60 and that t-values were higher than 1.96 ($p < .001$), which satisfied the threshold as suggested by Hair, Black, Babin, and Anderson (2010). A second order CFA was then conducted to examine the convergent and discriminant validity based on model fit statistics, the average variance extracted (AVE) and the shared variance between of pair variables (Fornell & Larcker, 1981). After that composite scores were calculated for each variable to present means, standard deviations and correlation. Final, path relationships of hypotheses were compared with various alternative models through the χ^2 difference test ($p < .05$) in line with recommendation by James, Mulaik, and Brett (2006) for testing the mediating effects via competition of alternative models. Sobel test was applied to explore the positively significant mediated effects. The relationships among research constructs were tested based on SEM by means of AMOS 21.

The overall, Chi-square (χ^2); Chi-square of Degrees of Freedom Ratio (χ^2/df); Goodness-of-Fit Index (GFI); Adjusted Goodness-of-Fit Index (AGFI); Normed-Fit Index (NFI); Comparative Fit Index (CFI); Root Mean Square Residual (RMR); Root Mean Squared Error of Approximation (RMSEA) were used to evaluate the model fit statistics.

Results

Characteristic of profile

The characteristics of the respondents include (1) Gender, (2) Marital status, (3) Age, (4) Levels of education, (5) Major, (6) Year, (7) Semester, and (8) Income. The results indicated that 52.29% of students are female and 90.43% are single. About 15.60% of them have the age below 20 years old but only .13% are above 40 years old. 7.99% of students have studied in Association Degree, 81.39% studying Bachelor and 10.62% studying Master Degree. The most popular major is Finance and Banking about 27.79%, 19.53% selecting major in Management, about14.15% choose Tourism and Hospitality Management, 14.15% studying major in Accounting, 9.57% studying Khmer Literature, 6.29% studying Information Technology, 2.36% studying Public Administration, 1.70% studying Private Law, 1.44% studying TESOL, 1.18% studying Teaching English as a Foreign Language (TEFL), .92% studying Marketing, .92% studying Economics. About 25.95% of students are in year 1 and more than 74% are studying year 2, 3 and 4. There are 60.03% of students who studying Semester 1 and 39.97% studying semester 2. They have a job while studying: 30.70% of monthly income is below 200USD and 2.36% of monthly income is above 900USD.

Measurement Results

The factor analysis and reliability test are presented in Table 1. The results of all factors loading of knowledge creation, knowledge transfer, and learning performance exceed .70, except factors loading of perceived organizational support have been deleted two factors (POS6 and POS7) because factors loading score are smaller than .70. All correlated item-to-total correlation is larger than .50 and all Coefficient Alpha (α) exceed .70. This consistent with the recommendation is given by Hair et al. (2010). These results shown that research item is reliable for this study.

The procedure was adopted to assess the convergent and construct validity of the measurement model (Anderson & Gerbing, 1988). The first step in measured data is first-order model of CFA. The outcomes of the first-order model of CFA revealed a good fit statistics and all standardized loading of factors are exceed .60 and each indicator t-value exceeds 1.96 ($p < .001$), and thus satisfy the criteria of CFA (Hair et al., 2010) (seen in Table 2). Furthermore, the second step in measured data is second-order model of CFA and the results showed the overall goodness-of-fit statistics for second-order CFA ($\chi^2(351.482)/df(129) = 2.725$, $p = .000$, GFI = .952, AGFI = .936, NFI = .951, CFI = .968, RMR = .043, RMSEA = .048) and all standardized loading of factors are exceed .60 and significant ($p < .001$) (seen in Table 3). Thus demonstrating the research model could be presented as a good model fit with adequate convergent validity and constructs reliability (Bagozzi & Yi, 2012; Hair et al., 2010).

Taking into consideration the characteristics of the data collection process were from single sources of student perceptions, common method variance might be of concern (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff, MacKenzie, & Podsakoff, 2012). Convergent validity was demonstrated, as the average variance extracted (AVE) values for all constructs were higher than the suggested threshold value of .50. Discriminant validity was determined by comparing the square root of the AVE with the Pearson correlations among the constructs. All AVE estimates from Table 3 can be seen to be greater than the corresponding inter-construct square correlation estimates in Table

4. Based on these results, it seems that common method bias is unlikely to be a problem with regard to the data (Chin, 1998; Gefen, Straub, & Boudreau, 2000).

Table 1 Factor analysis and reliability test (n=763)

Research Construct	Research Items	Factor Loading	Correlated Item-to-total Correlation	Crob. α
Perceived organizational support				.844
	POS4	.826	.705	
	POS3	.823	.697	
	POS1	.808	.676	
	POS2	.749	.603	
	POS5	.718	.573	
	POS 6, POS 7 < .70			*Deleted*
Knowledge creation				.797
	KNT3	.808	.635	
	KNT4	.804	.628	
	KNT2	.771	.586	
	KNT1	.771	.586	
Knowledge transfer				.851
	KNC4	.817	.694	
	KNC3	.809	.679	
	KNC1	.799	.669	
	KNC2	.799	.667	
	KNC5	.731	.590	
Learning performance				.860
	LEP3	.859	.734	
	LEP2	.853	.723	
	LEP1	.848	.715	
	LEP4	.795	.645	

Structural Equation Results

To test hypotheses, in this study, SEM was applied by mean of AMOS 21. As shown in Table 5 and Figure 4, the results demonstrated that that $\chi^2(351.482)/df(129) = 2.725$, $p = .000$, GFI = .952, AGFI = .936, NFI = .951, CFI = .968, RMR = .043, RMSEA = .048, and all of these satisfied the threshold as suggested by Hair et al. (2010). All coefficients of the path are significant (t-value is greater than 1.96). It indicates that perceived organizational support have not only significant influence on knowledge creation (γ_{H1} = .770; t = 16.589; $p < .001$), but also have significant influence on knowledge transfer (γ_{H2} = .202; t = 3.682; $p < .001$), too. Table 5 and Figure 4 also show that knowledge creation has significant influence on knowledge transfer (β_{H3} = .757; t = 11.594; $p < .001$), and knowledge transfer has significant influent on learning performance (β_{H4} = .505; t = 3.957; $p < .001$). Therefore, hypotheses H_1, H_2, H_3, and H_4 are confirmed in this study.

Table 2 Results of first-order CFA

Indicators		Research constructs	Standardized loading	t-value	Goodness of fit statistics
POS1	←	Perceived organizational support	.755***	20.190	χ^2(12.49)/df(5) = 2.498, p = .029, GFI = .993, AGFI = .980, NFI = .991, CFI = .995, RMR = .025, RMSEA = .044
POS2	←		.668***	17.792	
POS3	←		.782***	20.876	
POS4	←		.778***	A	
POS5	←		.628***	16.66	
KNT1	←	Knowledge creation	.670***	15.776	χ^2(2.452)/df(2) = 1.226, p = .294, GFI = .998, AGFI = .992, NFI = .997, CFI = .999, RMR = .013, RMSEA = .017
KNT2	←		.670***	15.784	
KNT3	←		.742***	A	
KNT4	←		.734***	16.812	
KNC1	←	Knowledge transfer	.739***	19.486	χ^2(14.289)/df(5) = 2.858, p = .014, GFI = .993, AGFI = .978, NFI = .990, CFI = .994, RMR = .027, RMSEA = .049
KNC2	←		.741***	19.540	
KNC3	←		.762***	20.069	
KNC4	←		.764***	A	
KNC5	←		.643***	16.897	
LEP1	←	Learning performance	.794***	22.566	χ^2(3.433)/df(2) = 1.717, p = .180, GFI = .998, AGFI = .989, NFI = .997, CFI = .999, RMR = .011, RMSEA = .031
LEP2	←		.805***	22.855	
LEP3	←		.811***	A	
LEP4	←		.702***	19.666	

Note: n=763, A= Parameter regression weight is fixed at 1.000, *** p-value < .001; ** p-value < .01, *p-value < .05, and significant level at t-value >1.96.

There are many statistical methods to test mediation effects, such as hierarchical regression (Baron & Kenny, 1986) and SEM (Hair et al., 2010). Characterized by exceptionally detailed and practitioner oriented summary of mediation issues, the Soble test is associated with best practices, especially in regard to SEMs (Feinberg, 2012; Fiedler, Schott, & Meiser, 2011; Kong, Cheung, & Song, 2012; Woody, 2011). Thus, the Sobel test was suitably employed for this study. To test the mediating effects of knowledge creation and knowledge transfer as proposed by this study, the Sobel's statistical procedure test involves two phases. Firstly, there is significant mediated effect if the z-test exceeds t-value = |1.96| for 2-tailed tests with α = .05 (Iacobucci, 2012; Sobel, 1982; Zhao, Lynch, & Chen, 2010). Additionally, the indirect effect was calculated using the following formula: indirect effect = $a \times b$ (where a is the path coefficient of the relationship between the independent and the mediator variables, and b is the path coefficient of the relationship between the mediator and the dependent variables) (Hair et al., 2010). Second, the significance level of the z-test was computed using the Sobel test, as formula:

$$z = \frac{a \times b}{\sqrt{b^2 SE_a^2 + a^2 SE_b^2}}$$

Where SE_a is the standard error of the relationship between the independent and the mediator variables, and SE_b is the standard error of the relationship between the mediator and the dependent variables.

Table 3 Results of second-order CFA

Indicators		Research constructs	Standardized loading	t-value	AVE
POS1	←	Perceived organizational support	.757***	21.517	.521
POS2	←		.650***	18.052	
POS3	←		.793***	A	
POS4	←		.767***	21.853	
POS5	←		.642***	17.787	
KNT1	←	Knowledge creation	.739***	A	.50
KNT2	←		.652***	17.199	
KNT3	←		.714***	18.881	
KNT4	←		.703***	18.584	
KNC1	←	Knowledge transfer	.768***	A	.571
KNC2	←		.733***	20.684	
KNC3	←		.761***	21.608	
KNC4	←		.736***	20.782	
KNC5	←		.650***	18.076	
LEP1	←	Learning performance	.781***	23.311	.606
LEP2	←		.809***	24.31	
LEP3	←		.816***	A	
LEP4	←		.707***	20.586	
Model fit statistics: χ^2(351.482)/df(129) = 2.725, p = .000, GFI = .952, AGFI = .936, NFI = .951, CFI = .968, RMR = .043, RMSEA = .048					

Note: n=763, A= Parameter regression weight is fixed at 1.000, *** p-value < .001; ** p-value < .01, *p-value < .05, and significant level at t-value >1.96.

Table 4 Results of mean, standard deviation, and correlations

Research constructs	Mean	Std. D.	1	2	3	4
1. Perceived organizational support	4.905	.940	***.722***			
2. Knowledge creation	5.219	.955	.625**	***.707***		
3. Knowledge transfer	5.118	.984	.666**	.740**	***.756***	
4. Learning performance	5.144	.956	.554**	.636**	.685**	***.778***

Note: n=763, ** Correlation is significant at the .01 level (2-tailed).

As shown in Table 5, an indirect effect of knowledge creation has significant influence on relationship between perceived organizational support and knowledge transfer (β_{H5} = .583, z = 9.012, p < .001). It means that knowledge creation plays a mediating role to facilitate the relationship between perceived organizational support and knowledge

transfer. Furthermore, indirect effect of knowledge transfer has not only significant impact on relationship between knowledge creation and learning performance, but also has significant influence on relationship between perceived organizational support and learning performance (β_{H6} = .382, z = 3.798, p < .001; β_{H7} = .102, z = 2.673, p < .01), respectively. It shows that knowledge transfer plays a mediating role to facilitate the relationship between knowledge creation and learning performance and also to facilitate the relationship between perceived organizational support and learning performance, too. Therefore, Hypothesis H_5, H_6, and H_7 are supported in this study.

Table 5 Standardized path relationship of structural model

Hypotheses/path	Standardized coefficient	S.E.	*t*-Value	Model fit statistics
Proposed theory model (M_T)				χ^2(357.034)/df(131) = 2.725, p = .000, GFI = .952, AGFI = .937, NFI = .950, CFI = .968, RMR = .044, RMSEA = .048
H1: 'POS' → 'KNC'	.770***	.044	16.553	
H2: 'POS' → 'KNT'	.193***	.054	3.676	
H3: 'KNC' → 'KNT'	.775***	.070	12.093	
H4: 'KNT' → 'LEP'	.810***	.042	19.078	
Alternative model (M_1)				χ^2(351.568)/df(130) = 2.704, p = .000, GFI = .952, AGFI = .937, NFI = .951, CFI = .968, RMR = .043, RMSEA = .047
H1: 'POS' → 'KNC'	.771***	.044	16.633	
H2: 'POS' → 'KNT'	.203***	.057	3.696	
H3: 'KNC' → 'KNT'	.756***	.072	11.575	
H4: 'KNT' → 'LEP'	.514***	.121	4.141	
H6-1: 'KNC' → 'LEP'	.309*	.134	2.477	
Competing model (M_2)				χ^2(351.482)/df(129) = 2.725, p = .000, GFI = .952, AGFI = .936, NFI = .951, CFI = .968, RMR = .043, RMSEA = .048
H1: 'POS' → 'KNC'	.770***	.044	16.589	
H2: 'POS' → 'KNT'	.202***	.057	3.682	
H3: 'KNC' → 'KNT'	.757***	.072	11.594	
H4: 'KNT' → 'LEP'	.505***	.124	3.957	
H6-1: 'KNC' → 'LEP'	.303*	.135	2.404	
H7-1: 'POS' → 'LEP'	.017	.059	.295	
Mediating effects			***z*-test**	***p* (sig.)**
H5:'POS'→'KNC'→'KNT'	.583***, SE_a= .044, SE_b= .072		9.012	.000
H6:'KNC'→'KNT'→'LEP'	.382***, SE_a= .072, SE_b= .124		3.798	.000
H7:'POS'→'KNT'→'LEP'	.102**, SE_a= .057, SE_b= .124		2.673	.008

Note: *n*=763, ****p*-value < .001, ***p*-value < .01, **p*-value < .05, and significant level at *t*-value >1.96.

To further confirm the results of the Sobel's test, two alternative models (M_1 and M_2) (seen Figure 3 and Figure 4), were proposed to compare with proposed theoretical model (M_T) (seen Figure 2). M_1 added the path relationship between knowledge creation and learning performance. M_2 further added another path relationship between perceived organizational support and learning performance. The sequential Chi-square (χ^2) difference tests (SCDTs) were performed to assess whether there were significant differences in estimated construct covariance explained by the three structural models (Jöreskog & Sörbom, 2003). The χ^2 difference examines the null hypotheses of no

significant difference between two nested structural models (denoted as $M_T - M_1 = 0$ and $M_1 - M_2 = 0$). The difference between χ^2 statistic values ($\Delta\chi^2$) for nested models is itself asymptotically distributed as χ^2, with degrees of freedom equal to the difference in degrees of freedom for the two models (Δdf). If the null hypothesis is upheld, the more constrained model of the two will be tentatively accepted. The χ^2 difference between M_T and M_1 ($\Delta\chi^2$: 357.034 – 351.568 = 5.466, Δdf =1), which suggested that M_1 performed significantly better than the theoretical model M_T, and the χ^2 difference between M_1 and M_2 (351.568 – 351.482= .086, Δdf =1) recommended that M_2 performed significantly better than M_1.

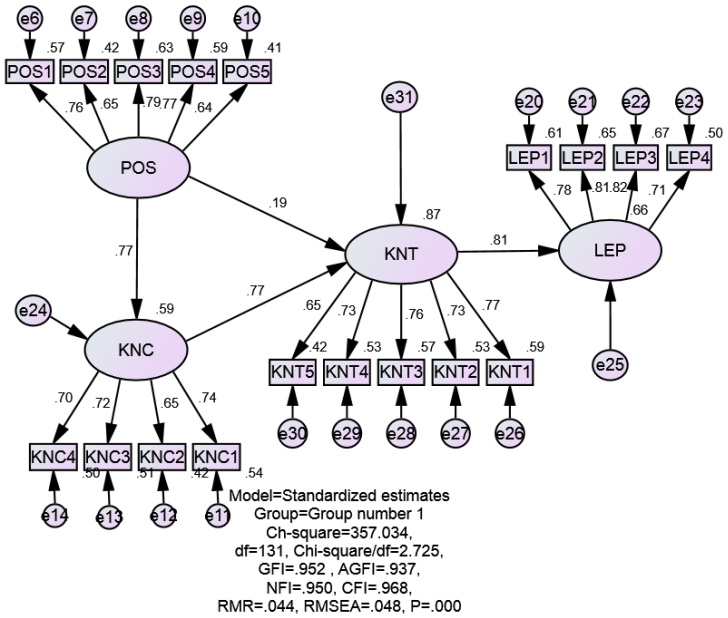

Figure 2 Results of SEM with theorictical model (M_T)

The results of χ^2 difference tests favor the M_2, as opposed to the proposed M_T and M_1. The causal relationship between knowledge creation and learning performance (Hypothesis $H_{6\text{-}1}$) was found to be significant ($\beta_{H6\text{-}1}$= .309, t = 2.477, p < .05), as shown in the competing model M_1. In addition, we further added another path relationship (seen M_2) between perceived organizational support and learning performance. The results showed that the causal relationship between knowledge creation and learning performance was significant ($\beta_{H6\text{-}1}$= .303, t = 2.404, p < .05), whereas the causal path from perceived organizational support and learning performance was not significant ($\beta_{H7\text{-}1}$ = .017, t= .295, p >.05). Therefore, the direct influence of knowledge creation on learning performance was significant, as proposed the M_1 and M_2. This relationship could be theoretically justified because knowledge creation could directly lead to their learning performance. Moreover, the findings supported the fully mediated role of knowledge transfer on the relationship between perceived organizational support and learning performance, which supported Hypothesis H_7. In similar findings, knowledge transfer partially mediated the relationship between knowledge creation and learning performance, too, which supported Hypothesis H_6.

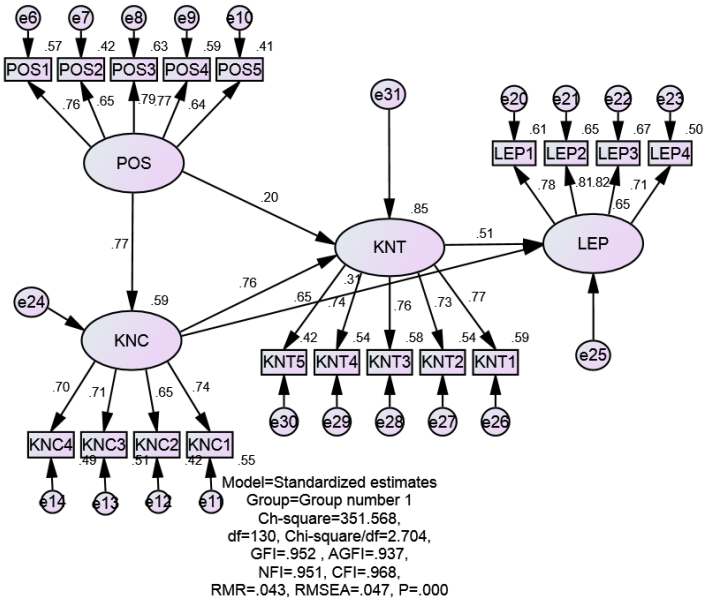

Figure 3 Results of SEM with alternative model (M_1)

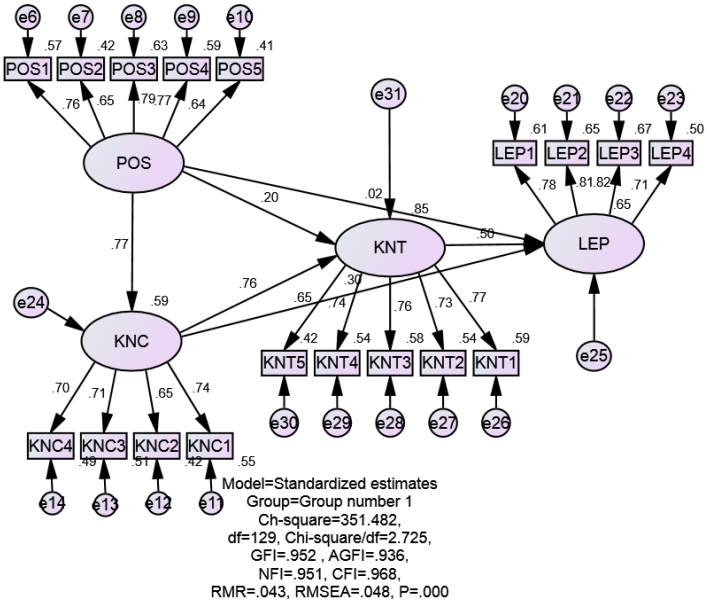

Figure 4 Results of SEM with competing model (M_2)

In the results shown in Table 5, a set of model fit statistics were also compared to determine which of the three models had the best model fit. The fit indices such as the GFI, AGFI, CFI, NFI, RMR, and RMSEA for the three competing models were almost identical, indicating that the three competing models achieved approximately the same level of model fit (Kline, 2011; Markus, 2012; Tabri & Elliott, 2012). Thus, we concluded

that the competing model M_2 could be retained and adopted for computing the Sobel's test procedure.

Discussion

The purpose of this study was to develop research model and test hypotheses of the relationships between perceived organizational support, knowledge creation, knowledge transfer, and learning performance and also examine how mediated effects of knowledge creation and knowledge transfer on their relationships. We developed this model by conceptually and empirically connected these associated with perceived organizational support of HEIs in Cambodian context. These hypotheses were tested with the results as shown in Table 6 and discussion of findings from testing the hypotheses is presented in the following:

Table 6 Summary of empirical results of hypotheses testing

Hypotheses development	Results
Hypothesis 1. Perceived organizational support is positively significant influence on knowledge creation.	Accepted
Hypothesis 2. Perceived organizational support is positively significant influence on knowledge transfer.	Accepted
Hypothesis 3. Knowledge creation is positively significant influence on knowledge transfer.	Accepted
Hypothesis 4. Knowledge transfer is positively significant influence on learning performance.	Accepted
Hypothesis 5. Knowledge creation is positively significant mediated the relationship between perceived organizational support and knowledge transfer.	Partially accepted
Hypothesis 6. Knowledge transfer is positively significant mediated the relationship between on knowledge creation and learning performance.	Partially accepted
Hypothesis 7. Knowledge transfer is positively significant mediated the relationship between perceived organizational support and learning performance.	Fully accepted

The findings revealed that perceived organizational support positively affects knowledge creation and knowledge transfer. This finding is different from prior studies, such as Song et al. (2013) found that perceived school support is not positively significant direct influence on teacher's knowledge creation practice. According to them, institutional characteristics are loosely coupled educational system: a lack of coordination, an absence of regulations, planned unresponsiveness, decentralization, and delegation of discretion. In these characteristics, we argue that institutional leader regardless of leadership style has relatively limited impact on the organizational behaviors of their employees. This means that employees are willingness to create new knowledge and transfer according to condition, work environment and motivation of instruction. In the way, competency-based pay (CBP) can provide employees with information about core value of high-performance organization and enhances continuous self-improvement by improving their knowledge creation, skills, and abilities, which are

important attributes that allow employees to exhibit creative performance (Hon, 2012). Accordingly, institution has a good policy, management system, and also implementation, too.

Additionally, this study is found that there is significant and positive relationship between lecturers' knowledge creation and their transfer. This finding goes along with the prior studies, such as Nonaka, Von-Krogh, and Voelpel (2006) which concluded that the critical function of knowledge sharing is that of maintaining an inter-organizational mechanism for employees' on-going innovation. This finding provides contribution to fill the literature and empirical gaps of knowledge creation and transfer relationships. Furthermore, this study is found that lecturers' knowledge transfer positively impact students' learning performance. This finding provides contribution to fill the literature and empirical gaps of knowledge transfer and learning performance relationship.

An extension of the research framework of mediating of knowledge creation and knowledge transfer may provide significant contributions to both institutions and academics. Based on the results of this study, it is assumed that lecturers' knowledge creation partially mediates the relationship between perceived organizational support and their lecturers' knowledge transfer. Moreover, lecturers' knowledge transfer significantly, positively, and partially mediates relationship between their knowledge creation and students' learning performance. That is, institutions can enhance lecturers' knowledge creation commitment to elicit their willingness to transfer knowledge, which, in turn, increase students' learning performance. These findings provide contribution to fill the literature and empirical gaps. Finally, lecturers' knowledge transfer only plays a full mediating role to facilitate the relationship between perceived organizational support and students' learning performance. This finding provides contribution to fill the literature gaps of perceived organizational support, knowledge transfer, and learning performance relationships.

Although the present study provides valuable insights into an understanding of the extended literature on perceived organizational support, knowledge creation, knowledge transfer of lecturer in order to explore the students' learn performance, there are a few limitations that should be recognized, and these may provide a departure for future research. First, this study was examined to 6-higher education institution in Seam Reap area and can't be extended to other institutions in different areas. Second, questionnaire distributed to the same source, which may have the common method bias. Third, it was lack of literature review and empirical studies of the knowledge transfer linking to learning performance, mediation of knowledge creation and transfer to support this study. Therefore, in the future research can try to collect data from others areas, countries, and sources to compare this results. However, this study can prove that lecturer knowledge transfer play as key roles in higher education institutions to increase their students' learning performance.

References

Ahmad, M., Bakar, J. A. A., Yahya, N. I., Yusof, N., & Zulkifli, A. N. (2011). *Effect of demographic factors on knowledge creation processes in learning management system*

among postgraduate students. Paper presented at the Open systems (ICOS), 2011 IEEE conference on.

Allred, B. B. (2001). Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation. *The Academy of management executive, 15*(1), 161-162.

Anatan, L. (2013). A proposed framework of university to industry knowledge transfer. *Review of Integrative Business and Economics Research, 2*(2), 304-325.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin, 103*(3), 411.

Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms *Organizational Behavior and Human Decision Processes, 82*(1), 150-169. doi: 10.1006/obhd.2000.2893

Bae, S. H., Song, J. H., & Kim, H. K. (2012). Teachers' creativity in career technical education: The mediating effect of knowledge creation practices in the learning organization. *The Korean Social Science Journal, 39*(1), 59-81.

Bae, S. H., Song, J. H., Park, S., & Kim, H. K. (2013). Influential factors for teachers' creativity: Mutual impacts of leadership, work engagement, and knowledge creation practices. *Perf. Improvement Qrtly, 26*(3), 33-58. doi: 10.1002/piq.21153

Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the academy of marketing science, 40*(1), 8-34.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology, 51*(6), 1173.

Brislin, R. W. (1980). Translation and content analysis of oral and written material. *Handbook of cross-cultural psychology, 2*(2), 349-444.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research, 295*(2), 295-336.

Cook, S. D. N., & Brown, J. S. (1999). Bridging epistemologies: The generative dance between organizational knowledge and organizational knowing. *Organization science, 10*(4), 381-400.

Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods* (12 ed.). New York: McGraw-hill

Dutrénit, G. (2000). *Learning and Knowledge Management in the Firm: From Knowledge Accumulation to Strategic Capabilities*. Massachusetts: Edward Elgar Publishing Limited

Eisenberger, R., Hungtington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500-507.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology, 87*, 565-573.

Feinberg, F. M. (2012). Mediation analysis and categorical variables: Some further frontiers. *Journal of Consumer Psychology, 22*(4), 595-598.

Fiedler, K., Schott, M., & Meiser, T. (2011). What mediation analysis can (not) do. *Journal of Experimental Social Psychology, 47*(6), 1231-1236.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.

Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the association for information systems, 4*(1), 7.

George, J. M., & Brief, A. P. (1992). Feeling good-doing good: a conceptual analysis of the mood at work-organizational spontaneity relationship. *Psychological bulletin, 112*(2), 310.

George, J. M., Reed, T. F., Ballard, K. A., Colin, J., & Fielding, J. (1993). Contact with AIDS patients as a source of work-related distress: Effects of organizational and social support. *Academy of Management journal, 36*(1), 157-171.

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American sociological review, 25*, 161-178.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). New Jersey: Pearson Prentice Hall.

Hon, A. H. (2012). When competency-based pay relates to creative performance: The moderating role of employee psychological need. *International Journal of Hospitality Management, 31*(1), 130-138.

Iacobucci, D. (2012). Mediation analysis and categorical variables: The final frontier. *Journal of Consumer Psychology, Forthcoming*.

James, L. R., Mulaik, S. A., & Brett, J. M. (2006). A tale of two methods. *Organizational Journal Methods, 9*(2), 233-244. doi: 10.1177/1094428105285144

Jöreskog, K. G., & Sörbom, D. (2003). *LISREL 8: User's Reference Guide*. Chicago: IL: Scientific Software.

Kang, I., Song, J. H., & Kim, W. (2012). The mediating effect of team-level knowledge creation on organizational procedural justice and team performance improvement. *Performance Improvement Quarterly, 25*(2), 4 3 – 6 4. doi: 10.1002/piq.21117

Karatepe, O. M. (2015). High-Performance Work Practices, Perceived Organizational Support, and Their Effects on Job Outcomes: Test of a Mediational Model. *International Journal of Hospitality & Tourism Administration, 16*(3), 203-223.

Khieng, S., Srinivasa, M., & Chhem, R. (2015). *Cambodia Education 2015: Employment and Empowerment*. Phnom Penh: CDRI: GIGB Printing House.

Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling* (3rd ed.). New York: The Guilford Press.

Kong, H., Cheung, C., & Song, H. (2012). From hotel career management to employees' career satisfaction: The mediating effect of career competency. *International Journal of Hospitality Management, 31*(1), 76-85.

Lee, H. (2007). What makes teachers learn together within the workplace?: Listening to Korean teachers of English in secondary schools. *KEDI Journal of Educational Policy, 4*(1), 59-78.

Markus, K. A. (2012). Principles and Practice of Structural Equation Modeling by Rex B. Kline. *Structural Equation Modeling: A Multidisciplinary Journal, 19*(3), 509-512.

McCharen, B., Song, J., & Martens, J. (2011). School Innovation The Mutual Impacts of Organizational Learning and Creativity. *Educational Management Administration & Leadership, 39*(6), 676-694.

MoEYS. (2016). Higher Education. Retrieved December 15, 2016, from http://www.moeys.gov.kh/en/higher-education.html#.WCwftWb-LIU

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization science, 5*(1), 14-37.

Nonaka, I., & Takeuchi, H. (1995). The knowledge creation company: how Japanese companies create the dynamics of innovation. *Oxford University Press. New York, USA*, 304.

Nonaka, I., Von-Krogh, G., & Voelpel, S. (2006). Organizational knowledge creation theory: Evolutionary paths and future advances. *Organization studies, 27*(8), 1179-1208.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual review of psychology, 63*, 539-569.

Prusak, L., & Matson, E. (2006). *Knowledge Management and Organizational Learning: A Reader*. Oxford: Oxford University Press.

Ramirez, A. M., & Kumpikaite, V. (2012). Creation, Transfer and Application of Knowledge and its Importance for Business Innovation and Organizational Performance. *International Proceedings of Economics Development & Research, 46*(6), 27-31. doi: 10.7763/IPEDR.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of Applied Psychology, 87*(4), 698-714.

Rutter, R. A., & Jacobson, J. D. (1986). *Facilitating Teacher Engagement*. Madison, WI: National Center on Effective Secondary Schools.

Saunders, M. N., Saunders, M., Lewis, P., & Thornhill, A. (2011). *Research Methods for Business Students* (5th ed.). India: Pearson Education

Shore, L. M., & Shore, T. H. (1995). Perceived organizational support and organizational justice. *Organizational politics, justice, and support: Managing the social climate of the workplace*, 149-164.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological methodology, 13*(1982), 290-312.

Song, J. H., Bae, S. H., Park, S., & Kim, H. K. (2013). Influential factors for knowledge creation practices of CTE teachers: Mutual impact of perceived school support, transformational leadership, and work engagement. *Asia Pacific Education Review, 14*(4), 467-482. doi: 10.1007/s12564-013-9283-8

Song, J. H., Kolb, J. A., Lee, U. H., & Kim, H. K. (2012). Role of transformational leadership in effective organizational knowledge creation practices: Mediating effects of employees' work engagement. *Human Resource Development Quarterly, 23*(1), 65-101.

Tabri, N., & Elliott, C. M. (2012). Principles and practice of structural equation modeling. *Canadian Graduate Journal of Sociology and Criminology, 1*(1), 59-60.

Von Krogh, G., Ichijo, K., & Nonaka, I. (2000). *Enabling Knowledge Creation: How to Unlock the Mystery of Tacit Knowledge and Release the Power of Innovation*. New York: Oxford University Press

Von Krogh, G., Nonaka, I., & Ichijo, K. (1997). Develop knowledge activists. *European management journal, 15*(5), 475-483.

Wambui, T. W., Wangombe, J. G., & Muthura, M. W. (2013). Linking Human Resource Management to Knowledge Transfer for Organizational Development. *International Journal of Business and Social Science, 4*(12), 169-183.

WIKIPEDIA. (2017). Transfer of learning. Retrieved February 14, 2017, from https://en.wikipedia.org/wiki/ Transfer_of_learning

Woody, E. (2011). An SEM perspective on evaluating mediation: What every clinical researcher needs to know. *Journal of Experimental Psychopathology, 2*(2), 210-251.

Yoon, S. W., Song, J. H., & Lim, D. H. (2009). Beyond the learning process and toward the knowledge creation process: Linking learning and knowledge in the supportive learning culture. *Performance Improvement Quarterly, 21*(3), 1-21.

Yuan, Y.-H. Y., Wu, M.-H., & Lee, J.-C. (2012). Examining the role of knowledge transfer effect as a mediator variable among impact factors in knowledge innovation. *International Journal of Business and Information, 7*(2), 205-224.

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of consumer research, 37*(2), 197-206.