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A study of the key determinants affecting hotel innovation strategic alliances in Cambodia utilizing a structural equation modelling

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Abstract: Seven latent variables were integrated into Structural Equation Modeling to investigate the effect of Communication, Learning Intent, Mutual Commitment, Trust, Absorptive Capacity, and Knowledge Sharing on Innovation in Cambodia's four- and five-star hotel industry. A Confirmatory Factor Analysis was adopted to evaluate the model's suitability. The empirical results of this research found that there was a direct positive significant effect of Communication, Mutual Commitment, and Trust on Knowledge Sharing. All latent variables—Communication, Learning Intent, Mutual Commitment, Trust, Absorptive Capacity, and Knowledge Sharing—in this study had a significant positive influence on Innovation. Despite Learning Intent and Absorptive Capacity latent constructs having an insignificant direct effect on the Knowledge Sharing variable, they turned out to have a highly statistically significant impact at the 1 percent level on the Innovation construct through the mediation of Knowledge Sharing. Regarding the estimated path coefficients generated from the model of this research, Knowledge Sharing produced the highest parameter, 3.094, and had a highly statistically significant effect on Innovation, which concluded that the greater the Knowledge Sharing, the more Innovation would be achieved. The second variable that had a substantial direct positive impact on Innovation was Communication, as the estimated slope parameter was 2.738.

Keywords: *Confirmatory factor analysis, Innovation, Knowledge sharing, Structural equation modelling.*

1. Introduction

Human resource development plays a very significant role in an organization because the level of knowledge of workers represents the level of development of the institution, especially, the development of new products or services, operation methods as well as competitive strategy in order to compete or expand the market which is so-called innovation. The empirical investigation conducted by Chen, et al. [1] found that knowledge sharing inter- or intra-organizations helped improve workers' performance and innovation.

Knowledge sharing inter- or intra-organization was determined by communication, learning intent, mutual commitment, trust, and absorptive capacity as referring to research conducted by Van Wijk, et al. [2] in many different kinds of industries. This research did not take into account the effect of knowledge sharing inter- or intra-organization on firm innovation behavior, especially, the indirect effect of communication, learning intent, mutual commitment, trust, and absorptive capacity on firm innovation behavior through the mediation of knowledge sharing [3].

Within the same research context, but applying in the four and five stars hotels in Cambodia, the current research tries to apply a model known as Structural Equation Modelling (SEM) to investigate the direct impact of communication, learning intent, mutual commitment, trust, and absorptive capacity on knowledge sharing and the indirect effect of communication, learning intent, mutual commitment, trust, and absorptive capacity on firms' innovation behavior through the mediation knowledge sharing. More interestingly, this research also tries to observe the direct effect of communication, learning

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intent, mutual commitment, trust, absorptive capacity and knowledge sharing on hotels' innovation behavior.

2. Literature Reviews

Akhavan and Mahdi Hosseini [4] found that firms' innovation was explained by government policies (external factors), firms' culture, characteristics and employee behavior (internal factors). The initiation of innovation of the organization mostly generated from employees' knowledge. Study conducted by Cepeda-Carrion, et al. [5] showed that the capability of the companies to convert new knowledge gains from the cooperative partners in producing new innovation was mostly depend on the absorptive capacities of the company itself as revealed by the empirical findings of 286 large Spanish companies. Knowledge sharing was found to be depended on social trust, relational social capital and attitude among the personnel of agricultural and education organization in the Iran as referring to empirical investigation conducted by Rad, et al. [6].

Surveying of eighty-nine firms were conducted in Jiangsu Province of China to investigate the direct effect of knowledge sharing on innovation and the indirect effect of knowledge sharing on firm performance through the mediation of innovation. Knowledge sharing had been classified into explicit and tacit and there were two different kinds of innovations, speed and quality. The relationship between latent variables were investigated under a structural equation modelling. The empirical results of this study indicated that knowledge sharing not only had a significant direct effect, but also had an indirect effect on firm performance [7]. A qualitative method using semi-structure interview was applied in Australia to assess the relationship between trust and absorptive capacity of workers in the workplace. The results of this research revealed that knowledge creation in the organization would not be improved unless the management establishes knowledge sharing culture among employees all over the company; otherwise, the opportunity to develop new innovation and technology would be lost [8].

The level of productivity of the companies increased when the companies invested more on knowledge sharing between organizations as revealed by research conducted in Iran. Factors influencing knowledge sharing were classified into individual factors and organization factors. There were five sub-factors which represented individual factors such as trust, perception, attitude, communication and cooperation, and motivation, while there were four sub-factors determined organization factors included management support, reward structure, organizational culture, and organizational structure [9]. The development of good rewarding system and culture in the organization would motivate individual knowledge sharing within organization as indicated by empirical investigation based on Hierarchical regression using survey data from multiple industries in different countries [10].

The purpose of a research conducted by Qureshi and Evans [11] was the same as Durmusoglu, et al. [10] but it was in the pharmaceutical industry. The results showed that there were nine categories of deterrents of knowledge sharing intra- and inter-organizations including high cost of sharing knowledge, information technology limitations, knowledge-hiding, lack of socialization, lack of trust culture, non-educational mindset, organizational politics, poor leadership and time pressure. Confirmatory factor analysis (CFA) combined with structural equation modelling (SEM) were employed to study the direct effect of five factors, trust, enjoyment in helping others, knowledge self-efficacy, management support, and information and communication technology on knowledge donation and collection in telecommunication industry in Vietnam. More interestingly, this research also assess the direct impact of knowledge donation and collection on employees' innovative work behavior. The test of statistics supported all developed hypotheses [12]. The results of this research was consistence with a study conducted by Kmieciak [13] but in Polish's large capital groups and a latent variable, trust, had been disaggregated into horizontal and vertical trusts, while innovation latent construct was classified into idea generation and idea realization.

A survey of 379 high-tech companies in the electronic information industry in China in order to find out the relationship between knowledge absorptive capacity and innovative performance of the

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companies. This research had tried to test theory and hypotheses developed by Lewin, et al. [14]; Bouncken, et al. [15]; Flatten, et al. [16] and Gutiérrez, et al. [17]. It had four dimension of knowledge absorptive capacity included knowledge acquisition, knowledge assimilation, knowledge transformation, and knowledge exploitation. The research results indicated that the four dimension had positive impact on firms' innovation performance [18].

Studies conducted by Inkpen [19]; Nahapiet and Ghoshal [20] and Capaldo and Petruzzelli [21] indicated that innovative knowledge sharing implementation inter- or intra-organizations took place due to relational and social capital. Collaboration for innovation which predicted by three observed items [22] was being explained, by inter-organizational communication which estimated by five manifest variables [23, 24]. Trust between cooperative partners played a very significant role in improving marketing networks among hotel group in Sweden [25]. The relationship between social capital and knowledge sharing were investigated through archival data of 432 Taiwanese firms in tourist industry. The results of this research found that organizational learning, exploitative learning and explorative learning, determined to be the key factors explaining the relationship between social capital and knowledge sharing [26].

Studies related to factors that impact on knowledge sharing and innovation inter- or intra-organizations were conducted in many countries such as Australia, China, Iran, Poland, Spain, Sweden, Taiwan, and Vietnam. Most of the factors, which had significant explain knowledge sharing and initiative innovation included in those studies, were absorptive capacities, trust, and communication, but the previous studies had not taken into account two most important factors which were commitment and learning intent of employees inter- or intra-organization. In addition, a kind of research involving knowledge sharing and innovation is barely conducted in Cambodia, especially, in the hotel industry. There are five latent variables, communication, learning intent, mutual commitment, trust, and absorptive capacity, which will be put together in a structural equation modelling to investigate the direct effect of the five latent variables on knowledge sharing and innovation performance, and the direct effect of knowledge sharing on innovation performance. Moreover, the indirect effect of communication, learning intent, mutual commitment, trust, absorptive capacity on innovation performance through the mediation of knowledge sharing of four- and five-stars hotel in Cambodia.

3. Methodology

This section covers the research methodologies employed in this paper, including the estimated method of the model's parameters, the sampling technique and the determination of the appropriate sample size, the development of the structural equation modelling and the analysis of the collected data. This research employed a Structural Equation Modelling (SEM) to investigate the impact of six factors: Communication (COM), Learning Intent (LIN), Mutual Commitment (MCO), Trust (TRU), Absorptive Capacity (ACA), and Knowledge Sharing (KSH) on Innovation (INN) in the Cambodia's hotel industry. All factors were unobserved variables. However, they were measured using the observed variables collected from the samples' respondents. The detail measurement of each latent variable are presented in Table I. The general model of this study is presented in Equation (1) below:

$$INN_i = \theta_1 COM_i + \theta_2 LIN_i + \theta_3 MCO_i + \theta_4 TRU_i + \theta_5 ACA_i + \theta_6 KSH_i + \epsilon_i \quad (1)$$

Where $\boldsymbol{\theta} = [\theta_1, \theta_2, \theta_3, \theta_4, \theta_4, \theta_6]$ is a vector of parameters to be estimated. ϵ_i are the residual or error terms. i represents individual hotel from $1, \cdots, n$. The estimated method of Model (1) is the Maximum Likelihood Estimation (MLE).

The likelihood function (LF) has the following form:

$$LF(\boldsymbol{\theta}|INN_1, INN_2, \ldots, INN_n) = \prod_{i=1}^{n}\left[\frac{1}{\sqrt{2\pi\sigma_i^2}} exp\left(-\frac{\epsilon_i^2}{2\sigma_i^2}\right)\right] \quad (2)$$

The likelihood function can also be written as:

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$$LF(\boldsymbol{\theta}|INN_1, INN_2, \dots, INN_n) = \frac{1}{\sigma_i^n (2\pi)^n} exp\left(-\frac{1}{2}\sum_{i=1}^{n}\frac{\epsilon_i^2}{\sigma_i^2}\right) \quad (3)$$

Take the logarithm of the *LF* to get the following:

$$lnLF(\boldsymbol{\theta}|INN_1, INN_2, \dots, INN_n) = -nln\sqrt{2\pi} - \frac{n}{2} ln\sigma_i^2 - \frac{1}{2}\sum_{i=1}^{n}\left(\frac{\epsilon_i^2}{\sigma_i^2}\right) \quad (4)$$

$$lnLF(\boldsymbol{\theta}|INN_1, INN_2, \dots, INN_n) = -\frac{n}{2} ln(2\pi) - \frac{1}{2}\sum_{i=1}^{n} ln\sigma_i^2 - \frac{1}{2}\sum_{i=1}^{n}\left(\frac{\epsilon_i^2}{\sigma_i^2}\right) \quad (5)$$

The calculus is applied to Equation (5) to find the sample parameters $\hat{\theta}_1, \hat{\theta}_2, \hat{\theta}_3, \hat{\theta}_4, \hat{\theta}_5$ and $\hat{\theta}_6$ that maximize the log-likelihood function.

In addition to the study of the direct effects of; Communication (COM), Learning Intent (LIN), Mutual Commitment (MCO), Trust (TRU), Absorptive Capacity (ACA), and Knowledge Sharing (KSH) on Innovation (INN), this research further investigated the mediation effect of Communication (COM), Learning Intent (LIN), Mutual Commitment (MCO), Trust (TRU), Absorptive Capacity (ACA) on Innovation (INN) through the mediation of Knowledge Sharing (KSH).

This research used primary data using a survey of four and five-stars hotels in Phnom Penh, Siem Reap, and Sihanoukville. A standardized questionnaire was developed and distributed to the targeted respondents through face-to-face meetings. The questionnaire was classified into seven sections. Each section represented each factor: COM, LIN, MCO, TRU, ACA, KSH, and INN, which were determined to be unobserved variables. The observed data was collected based on a 5-point Likert scale where one represented Strongly Disagree, and five indicated Strongly Agree.

The model's fitness was evaluated by applying reliability and validity testing. Reliability testing was conducted to determine the model's internal consistency. If the composite reliability was more than 0.7, the questionnaire instrument was considered to have good indicator reliability. A prerequisite for convergent validity existed when the minimum average variance extraction value (AVE) was 0.5. Moreover, Confirmatory Factor Analysis (CFA) was adopted to evaluate the model's suitability.

The sample size was determined based on a formula developed by Djarwanto and Subagyo [27], as shown below:

$$n = \frac{z^{1/2}\sigma}{\epsilon}$$

Where, n is number of samples, z is area of the standard normal curve, σ is standard deviation, and ϵ is error. Referring to the normal distribution table, the value of $z^{1/2}$ was 1.96. If the standard deviation was set to 0.5 and the error was 0.01, the sample size was 98 entities.

Six hotels, three four-stars and three five-stars holes, were randomly selected from a list of four and five-starts hotels in Cambodia to complete the questionnaire in the development stage. The questionnaire was assigned to each of them to fulfil. Any problems or questions raised upon completing the questionnaire were recorded and used to update and improve the questionnaire.

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Table 1.
Measurement.

Latent Variables		Measurements
Knowledge Sharing (KSH)	KSH1	In order to develop competitive products or services, our hotel creates and shares knowledge with strategic alliance partners.
	KSH2	Our hotel regularly conducts meetings with strategic alliance partners for the purpose of communication and knowledge developing and sharing.
	KSH3	Our hotel and strategic alliance partners create a "community" that allows strategic alliance members to share and create knowledge.
	KSH4	You and your partner share know-how from work experience with each other
	KSH5	Our hotel and alliance partner learn from each other sufficiently about business activities (distribution, sales-marketing, service production, R & D, etc.)
	KSH6	Our hotel uses all its resources (financial, technical, physical, administrative, people, etc.) to support the sharing of knowledge.
	KSH7	Our hotel and alliance partner work together to create new skills and knowledge.
	KSH8	Our hotel and alliance partner share knowledge obtained from newspapers, magazines, journals, television and other sources
	KSH9	Our hotel and alliance partner share significant proportion of knowledge with each other.
	KSH10	Our hotel and alliance partner share each other's know-where and know-whom
	KSH11	Our hotel and alliance partner share a lot of information about how to improve each other's capacities.
Capacity Absorptive (ACA)	ACA1	Our Alliance partner enables us to develop products/services for end customers.
	ACA2	Our alliance partner enables us to understand the needs of our customers better.
	ACA3	Our alliance partners allow us to better understand the competencies of our competitors.
	ACA4	Our alliance partner enables us to find better ways to market the products/services.
	ACA5	Our alliance partner enables us to develop the strategies needed to compete in the market
	ACA6	Our alliance partner helps us better understand the market segments we serve.
Trust (TRU)	TRU1	Our alliance partner respect the confidentiality of the information they receive from us.
	TRU2	Our alliance partner has been open and honest in dealing with us.
	TRU3	We trust that our alliance partner's decisions will be beneficial to the alliance.
	TRU4	There is a high level of trust in the working relationship with our alliance partner.
	TRU5	We can rely on our partner to abide by the alliance agreement.
	TRU6	We trust that our partner's decisions will be beneficial to our hotel.
Mutual Commitment (MCO)	MCO1	Our alliance partners abide by agreements very well.
	MCO2	We and our alliance partners always try to keep each other's promises.
	MCO3	We have invested a lot of effort in our relationship with alliance partners.
	MCO4	Our alliance partners have made sacrifices for us in the past.
Learning Intent (LIN)	LIN1	As a result of this alliance, we have improved existing technical skills
	LIN2	As a result of this alliance, we have developed new management skills.
	LIN3	As a result of this alliance, we have developed new technical skills.
Communication (COM)	COM1	Our hotel and alliance partner frequently exchange each other's opinions
	COM2	Our alliance partner frequently keeps us informed of new developments
Innovation (INN)	INN1	We routinely gather information about prospective partners from various forums (e.g., trade shows, industry conventions, databases, publication, internet, etc.)
	INN2	We actively monitor our environment to identify partnering opportunities
	INN3	Our hotel is often the first to market with new products and services
	INN4	Our new products/services introduction has increased after the collaboration

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	INN5	Our hotel frequently tries out new ideas
	INN6	Our hotel is creative in its methods of operation
	INN7	We are alert to market developments that create potential alliance opportunities
	INN8	Innovation in our hotel is perceived as too risky and is resisted (reverse)

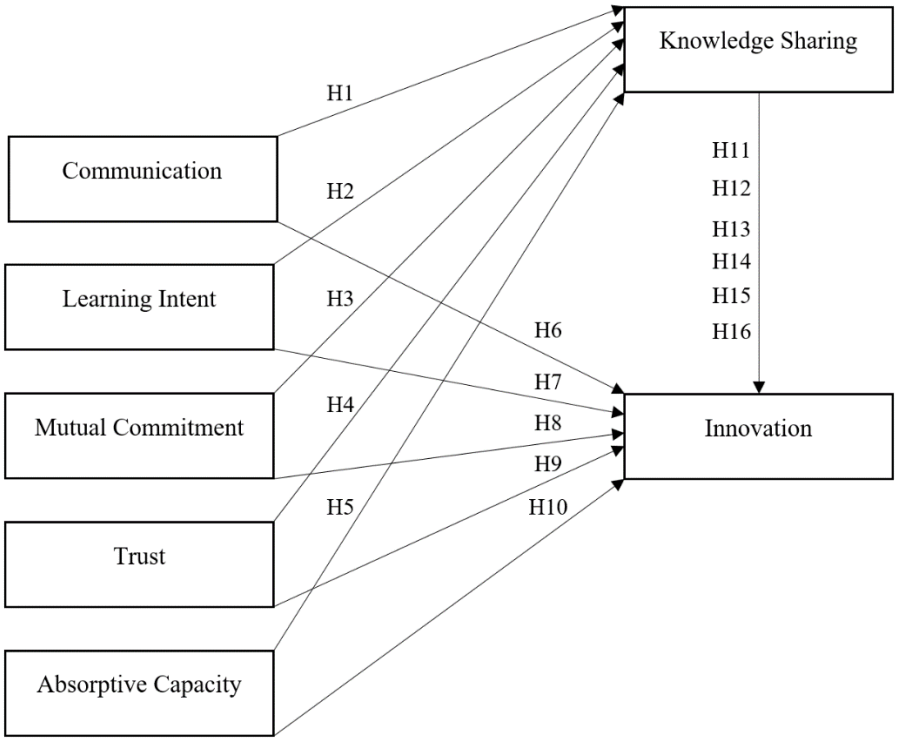

Figure 1.
Conceptual Framework and Hypotheses.

The present research tested the following hypotheses:

Hypothesis 1 (H1): Communication has a significant positive effect on Knowledge Sharing.
Hypothesis 2 (H2): Learning Intent has a significantly positively effect on Knowledge Sharing.
Hypothesis 3 (H3): Mutual Commitment has a significantly positively effect on Knowledge Sharing.
Hypothesis 4 (H4): Trust has a significantly positively effect on Knowledge Sharing.
Hypothesis 5 (H5): Absorptive Capacity has a significantly positively effect on Knowledge Sharing.
Hypothesis 6 (H6): Communication has a significantly positively effect on Innovation.
Hypothesis 7 (H7): Learning Intent has a significantly positively effect on Innovation.
Hypothesis 8 (H8): Mutual Commitment has a significantly positively effect on Innovation.
Hypothesis 9 (H9): Trust has a significantly positively effect on Innovation.
Hypothesis 10 (H10): Absorptive Capacity has a significantly positively effect on Innovation.
Hypothesis 11 (H11): Knowledge Sharing has a significantly positively effect on Innovation.
Hypothesis 12 (H12): Commitment has a significantly positively effect on Innovation through the mediation of Knowledge Sharing.
Hypothesis 13 (H13): Learning Intent has a significantly positively effect on Innovation through the mediation of Knowledge Sharing.
Hypothesis 14 (H14): Mutual Commitment has a significantly positively effect on Innovation through the mediation of Knowledge Sharing.
Hypothesis 15 (H15): Trust has a significantly positively effect on Innovation through the mediation of Knowledge Sharing.

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Hypothesis 16 (H16): Absorptive Capacity has a significantly positively effect on Innovation through the mediation of Knowledge Sharing.

4. Empirical Results

Structural Equation Modelling (SEM) was applied to assess the direct effect of Communication (COM), Learning Intent (LIN), Mutual Commitment (MCO), Trust (TRU), Absorptive Capacity (ACA), and Knowledge Sharing (KSH) on Innovation (INN). This research also measured the indirect impact of Communication (COM), Learning Intent (LIN), Mutual Commitment (MCO), Trust (TRU), Absorptive Capacity (ACA) on Innovation (INN) through the mediation of Knowledge Sharing (KSH). All variables in this study were determined to be unobserved variables known as latent variables or latent constructs, which were predicted by the observed variables, so-called manifest variables. The seven developed latent constructs were observed by forty questions or items. One hundred of four- and five-stars hotels participated in the questionnaire survey and none of the hotel was eliminated from this study due to the standard error of the choices selected by that the correspondent hotel having a value more than 0.3. With the collected data set, confirmatory factor analysis was initially conducted, and the loading factor of each item needed to be no less than 0.5. Otherwise, it was deleted. Regarding the CFA results, twenty-sex questions were omitted from the system because their loading factors did not pass the threshold.

Table 2.
Goodness of fit test, CFA.

Indices	Value	References	Threshold
IFI	0.917	Meyer, et al. [28]	> 0.90
CFI	0.931	Hatcher [29]	> 0.90
NFI	0.932	Bentler and Bonett [30]	> 0.90
RMSE	0.068	Byrne [31] and Meyer, et al. [28]	< 0.08
SRMSR	0.065	Hair, et al. [32]	<0.09

The result of the model fit indicated that the chi-square or CMIN had a value of 546.601 and a degree of freedom (DF) of 254. However, its probability value was smaller than 5%, indicating that the hypothesised model differed significantly from the observed model. Yet, the CMIN/DF was 2.152, which is considered a good result [28]. Moreover, to assess the model fit, this research used the following indices; Incremental Fit Index (IFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Root Mean Square Error (RMSE), and Standard Root Mean Square Residual (SRMSR). Comparing all of the indices and concerning its threshold, it was claimed that the model fitted the data well.

Table 3.
Validity Analysis.

	CR	AVE	MSV	MaxR(H)	ACA	TRU	MCO	LIN	COM	INN	KSH
ACA	0.804	0.508	0.756	0.813	0.712						
TRU	0.829	0.617	1.174	0.833	0.846***	0.786					
MCO	0.748	0.598	0.461	0.751	0.760***	0.764***	0.773				
LIN	0.834	0.626	0.472	0.836	0.485***	0.519***	0.134	0.791			
COM	0.821	0.697	0.929	0.830	0.522***	0.753***	0.533***	0.759***	0.835		
INN	0.781	0.573	1.174	0.793	0.870***	1.083***	0.786***	0.687***	-0.746***	0.788	
KSH	0.864	0.585	0.929	0.900	0.744***	0.725***	0.679***	0.723***	0.964***	0.089	0.797

Source: Estimated by the authors using AMOS.

It is vital to generate; convergent validity, discriminant validity, and reliability when conducting the CFA. Otherwise, continuing to run a causal model test is generally regarded as unfeasible. When this study created the construct reliability, composite reliability (CR), and MaxR (H), each construct value needed to be greater than 0.7. Likewise, CR needed a value greater than the Average Variance

Extracted (AVE) to demonstrate convergent validity. Notably, the AVE of each construct needed to be greater than 0.5, and the correlation between one construct and another needed to be statistically significant. Furthermore, the Heterotrait-Monotrait ratio of correlation (HTMT) was adopted to check the discriminant validity. In addition, to guarantee the constructs were discriminat the HTMT ratio needed to be smaller than 0.9.

Regarding the validity analysis in Table 3, the CR of all the constructs was more significant than 0.7. The correlation between one construct and another was effective at the 1 per cent significant levels. In conclusion, there were no validity concerns.

Table 4.
HTMT Analysis.

Latent Variable	ACA	TRU	MCO	LIN	COM	INN	KSH
ACA							
TRU	0.867						
MCO	0.218	0.177					
LIN	0.483	0.532	0.122				
COM	0.009	0.055	0.538	0.057			
INN	0.806	0.783	0.286	0.693	0.055		
KSH	0.141	0.074	0.677	0.051	0.884	0.116	

The HTMT analysis in Table 4 indicated that the HTMT of all constructs was less than 0.9. Based on this result, all the constructs were assumed to be discriminant against. After completing the confirmatory factor analysis, the next process was to conduct path analysis using structural equation modelling. Before conducting any hypotheses testing, which concluded from the SEM, an assessment of the model's fit was performed again.

The loading factors of all items used to estimate the latent variables still exceeded 0.5 (See Figure 2. Structural Equation Modelling). These results were consistent with the CFA. The total number of manifest and latent variables remained unchanged. The calculated value of chi-square was 546.601, and the degree of freedom was 254, which generated a 2.152 ratio of chi-square over the degree of freedom since the calculated ratio was less than three. As referring to Hair, et al. [28], the model was a good fit. Alternatively, the indices fit, Incremental Fit Index, Comparative Fit Index, Normed Fit Index, Root Mean Square Error, and Standard Root Mean Square Residual all passed the thresholds as indicated in Table 5.

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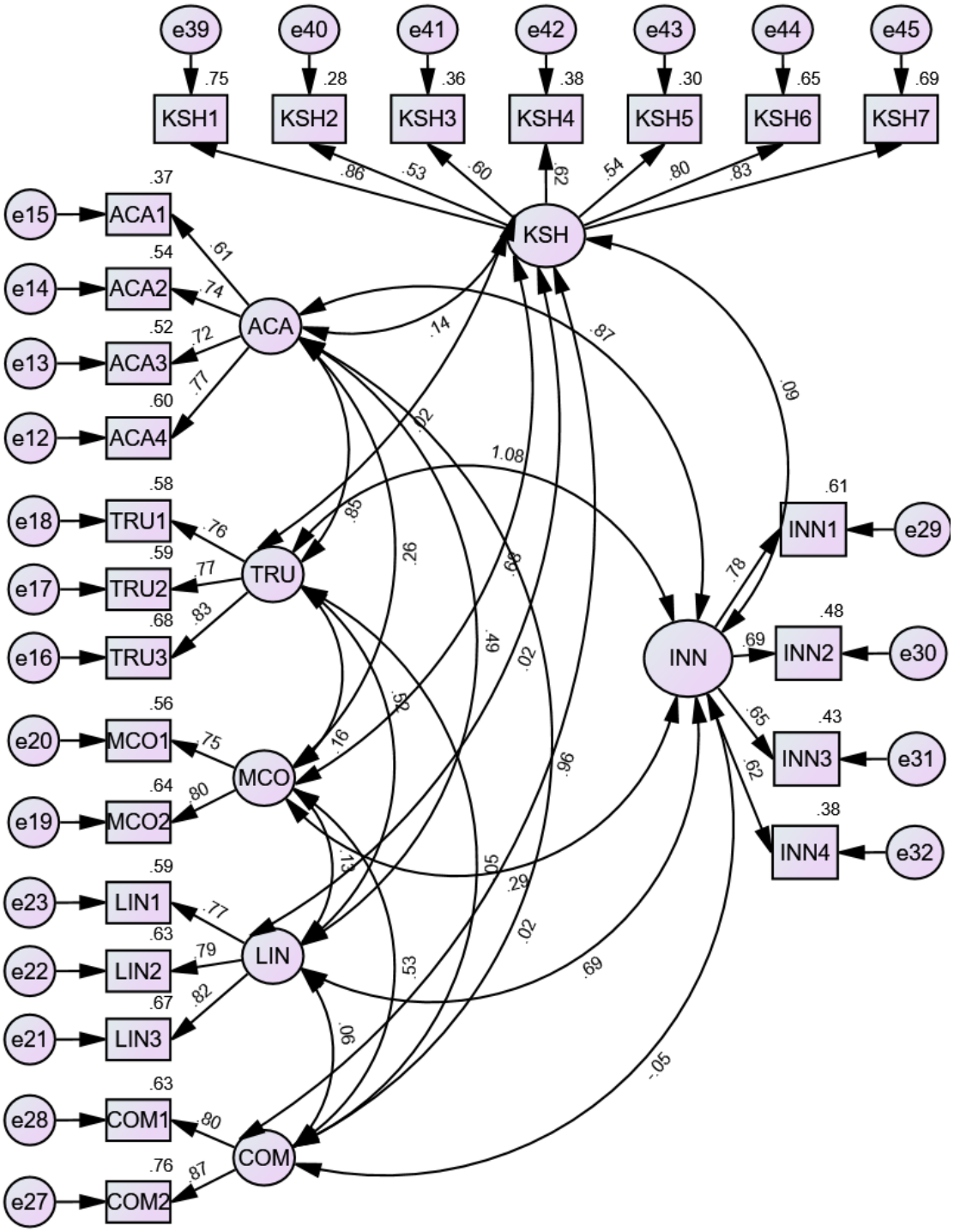

Figure 2.
Confirmatory Factor Analysis.

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Table 5.
Goodness of fit test, SEM.

Indices	Value	References	Threshold
IFI	0.914	Meyer, et al. [29]	> 0.90
CFI	0.908	Hatcher [30]	> 0.90
NFI	0.924	Bentler and Bonett [31]	> 0.90
RMSE	0.068	Byrne [32] and Meyer, et al. [29]	< 0.08
SRMSR	0.085	Hair, et al. [28]	<0.09

Table 6.
Bootstrap Distributions.

		|----------
	147.193	|*
	180.956	|*
	214.719	|****
	248.482	|**********
	282.245	|**********
	316.008	|**********
	349.771	|**********
N = 10000	383.534	|**********
Mean = 322.052	417.297	|******
S. e. = .604	451.060	|***
	484.823	|*
	518.586	|*
	552.349	|*
	586.112	|*
	619.875	|*
		|----------

Instead of using the indices fit to assess the model fit, bootstrapping distribution was also applied. This study conducted 10000 bootstrapping samples and the model fit better in 9992 bootstrap samples. Since the calculated chi-square of the model was 546.601 fall within the constructed distribution and as referring to the Bollen-Stine bootstrap testing the null hypothesis that the model was correct was fail to rejected since p-value was 0.539 which was greater than 5 per cent level which claimed that the model is at best fit.

The estimated parameters of the model were developed using the Maximum Likelihood Estimation method, and the standard errors for statistical tests were developed under the bootstrapping technique. The sample parameters and estimated standard errors found based on this method were used in calculating statistical tests for hypotheses testing. The causal relationship among latent variables or latent constructs was assessed through path analysis. The estimated results of the path coefficients, which indicate the direct effect of COM, LIN, MCO, TRU, and ACA on KSH, are presented in Table 7.

Table 7.
Part Analysis, Direct Effect on KSH.

Direct Effect			Coefficient	P-Value
COM	→	KSH	0.857	0.002
LIN	→	KSH	0.111	0.146
MCO	→	KSH	0.201	0.038
TRU	→	KSH	0.044	0.024
ACA	→	KSH	0.164	0.219

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The empirical findings suggested that the slope coefficient of COM was 0.857 since the probability value (p-value) was 0.002 lower than the significance level of 1 per cent; the null hypothesis was strongly rejected, which claimed that COM had a significant positive effect on KSH. The estimated sample parameters of MCO and TRU were 0.201 and 0.044, respectively and each variable was statistically significant explain KSH at 5 per cent level. In contrast, LIN and ACA latent variables had no significant influence on KSH.

Table 8.
Part Analysis, Direct Effect on INN.

Direct Effect			**Coefficient**	**P-Value**
COM	→	INN	2.738	0.000
LIN	→	INN	0.529	0.000
MCO	→	INN	0.442	0.023
TRU	→	INN	1.303	0.001
ACA	→	INN	0.760	0.038
KSH	→	INN	3.094	0.000

The empirical results that indicated the direct effect of COM, LIN, MCO, TRU, ACA, and KSH on INN were shown in Table 8. All latent variables in this study were statistical positive significant explain INN at 1 per cent level for COM, LIN, TRU, and KSH, while for MCO and ACA, it had 5 per cent significant impact on INN. The results had further revealed that KSH had the greatest influence on INN based on it estimated slope coefficient of 3.094, following by COM (2.738), TRU(1.303), ACA(0.760), LIN(0.529), and MCO(0.442).

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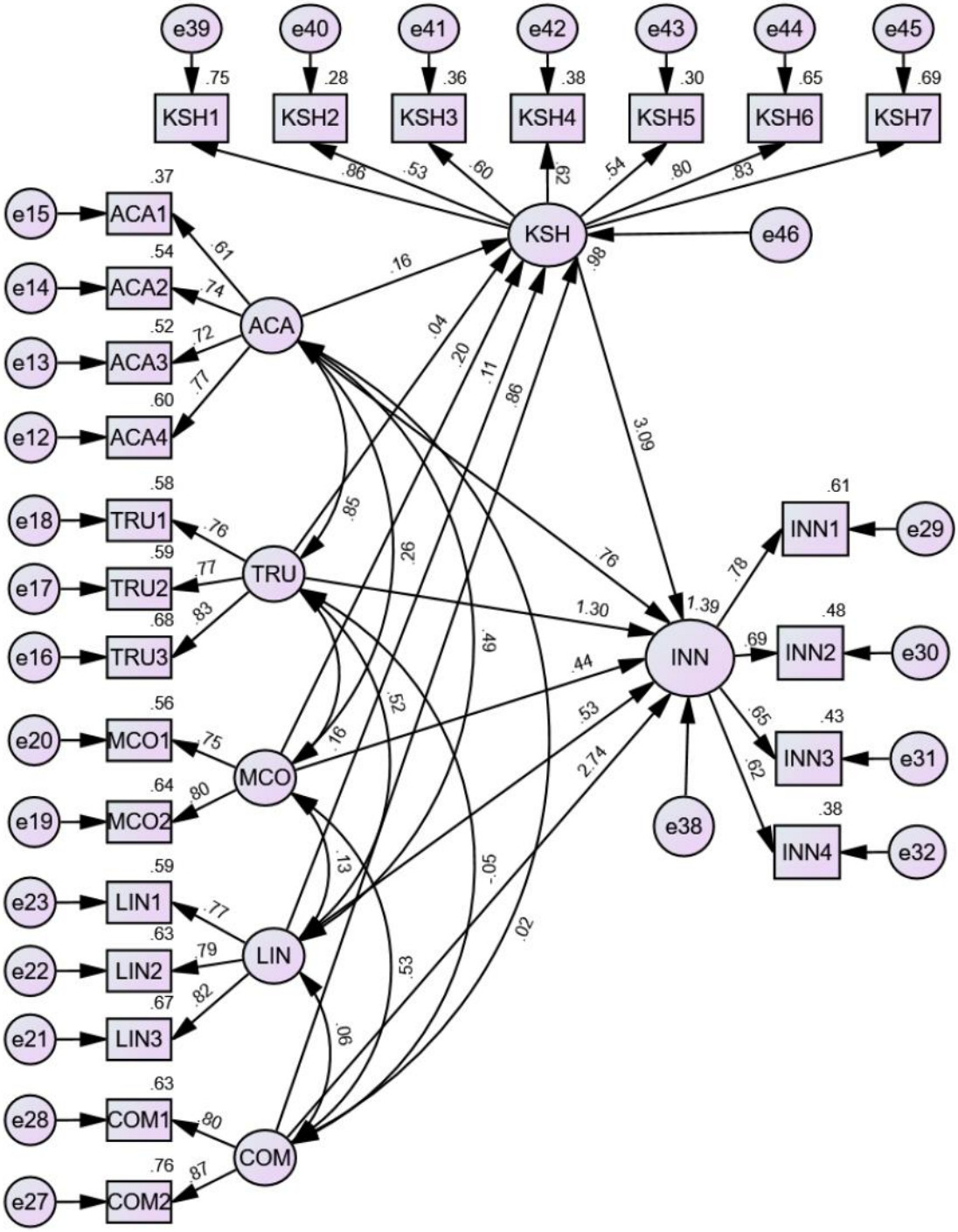

Figure 3.
Structural Equation Modelling.

This research also investigated the indirect effects of Communication (COM), Learning Intent (LIN), Mutual Commitment (MCO), Trust (TRU), Absorptive Capacity (ACA) on Innovation (INN) through the mediation of Knowledge Sharing (KSH). The results of the part analysis which indicated

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the indirect effect of COM, LIN, MCO, TRU, and ACA on INN through the mediation of KSH, was presented in Table 9.

Table 9.
Part Analysis, Indirect Effect on INN through KSH Mediation.

Indirect Effect					Coefficient	P-Value
COM	→	KSH	→	INN	2.652	0.000
LIN	→	KSH	→	INN	0.345	0.002
MCO	→	KSH	→	INN	0.623	0.000
TRU	→	KSH	→	INN	0.136	0.045
ACA	→	KSH	→	INN	0.509	0.007

All latent variables, COM, LIN, MCO, TRU, and ACA had statistical positive impact on INN at 1 per cent level, except TRU variable that was significant explain INN at 5 per cent level. Among the five latent constructs, COM variable played the most significant role influencing INN variable through the mediation of KSH since its estimated path coefficient was 2.652 which was the highest comparing to the other four constructs, MCO(0.623), ACA(0.509), LIN(0.345), and TRU(0.136).

5. Conclusion

This paper's objectives were to investigate the direct effects of Communication (COM), Learning Intent (LIN), Mutual Commitment (MCO), Trust (TRU), Absorptive Capacity (ACA), and Knowledge Sharing (KSH) on Innovation (INN). This research further assessed whether there was an indirect effect of Communication (COM), Learning Intent (LIN), Mutual Commitment (MCO), Trust (TRU), and Absorptive Capacity (ACA) on Innovation (INN) through the mediation of Knowledge Sharing (KSH).

Seven latent variables were developed under the measurement of forty manifest variables. After conducting a confirmatory factor analysis, twenty-six observed variables were eliminated from the model. The structural relationship between the observed and unobserved variables was carried out using structural equation modelling. The empirical results of this research found that there were a direct positive significant effect of Communication, Mutual Commitment, and Trust on Knowledge Sharing. More interestingly, all latent variables, Communication, Learning Intent, Mutual Commitment, Trust, Absorptive Capacity, and Knowledge Sharing, in this study had significant positive influence on Innovation. Despite Learning Intent and Absorptive Capacity latent constructs had insignificant direct effect on Knowledge Sharing variable, but it turned out that they had highly statistical positive significant impact at 1 per cent level on Innovation construct through the mediation of Knowledge Sharing.

Regarding the estimated path coefficient generated from the Structural Equation Modelling of this research, Knowledge Sharing produced the highest parameter, 3.094, and had highly statistical significant effect on Innovation. This result was interpreted that the greater the Knowledge Sharing, the more the new Innovation would be made. The second variable that had a huge direct positive impact on Innovation was Communication since the estimated slope parameter was 2.738. In addition, among the four latent variables, Communication, Learning Intent, Mutual Commitment, Trust, and Absorptive Capacity, Communication generated the highest direct impact on Knowledge Sharing because its estimated slope coefficient was 0.857 and statistically significant at 1 per cent level. At the same time, it also had the highest indirect effect on Innovation through Knowledge Sharing as comparing to Learning Intent, Mutual Commitment, Trust, and Absorptive Capacity latent variables since the estimated path coefficient was 2.652 and highly significant at 1 per cent level. This result would interpreted that the better the Communication through Knowledge Sharing within the hotels, the more the new Innovation would be created.

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Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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