CHAPTER 5

FINDINGS AND CONCLUSION

Chapter 5 described for research findings and its outcome. The conclusion explained overall investigations which support the research objectives, research questions, and hypotheses outcome.

This chapter provided the finding and conclusions according to support all below aspects:

5.1 Findings

5.2 Conclusion

5.3 Contribution

5.4 Recommendation

5.5 Originalities and Implementation

Constructs and Factors (4 Latent with 14 variables) applied variables and constructs names as showed in Table 5.1

Table 5.1 Latent of Constructs and Variables

Latent	Construct	SEM	Variables	Factors
L1 Exogenous (SST)	MOB Make or Buy *(Sourcing)*	KSI-1	X1 X2 X3	Make Buy Both
L2 Exogenous (SSR)	DOM Dominant Power *(Selection & Relationship)*	KSI-2	X4 X5 X6	Price People Policy
L3 Endogenous (SPU)	SPU Service Performance (5Rs) *(Service Quality)*	ETA-1	Y1 Y2 Y3 Y4 Y5	Reliability Rates Resources Risk Avoidance Responsiveness
L4 Endogenous (SVL)	SVL Competitive Advantages *(Service Level)*	ETA-2	Z1 Z2 Z3	Cost Time Flex.

Descriptive Mean Levels and Normal Distribution (all are high level)

5.1 FINDINGS

5.1.1 Overall

69.94% respondents are sea 3PL; the rests were other types of transport logistics. The behavioral of pricing and cost were significantly focus based on the differences of nationality and cultures. The holistic model combined all 3 nations in SEM and analyzed by Lisrel v. 9.1

Outputs of the Major Model (ALL nations N = 509) showed the model's validity congruent to the theoretical framework and empirical research either EFA/CFA, all over 80% with value of Chi-Square 72.75 (DF=62), P-Value=1.6501, RMSEA=0.18 (RMR=.90), Goodness of Fit Statistics (GFI) =.98, (AGFI=.97, CFI= 1.0).

5.1.2 The Reliability

Observed variables (R^2) showed range in between 0.54 – 0.94

= Z1 (.94), Z3 (.94), Z2 (.87), X6 (.85), X1 (.83), Y2 (.80), X4 (.80), X5 (.79), Y1 (.79), Y5 (.73), Y3 (.72), X2 (.68), X3 (.57) Y4 (.54)

The three highest Dependent variables = Z1 (COST), Z3 (FLEX), Z2 (TIME).

Observed variables reliability = X6 (Policy), X1 (Make), Y2 (Rate).

The lowest variables reliability = X2 (BUY), X3 (Both M&B), Y4 (Risk Avoidance).

The Reliability of Latent Variables (R^2 SEM) showed value as 61%

5.1.3 The Effects (L4: Competitive Service Level)

The most impact Direct effects were L2: Power of Dominant (.37), and L3: Service Performance Unit (.36)

The most Indirect effects were also L2: Power of Dominant (.11), followed by L1: Sourcing Technique (.09) affected to the critical of the serviceability competitiveness at $p < .01$

The casual model of the Competitive Service Level of Logistics Service Providers in Thailand, Vietnam, and China under an invariance model tests (Appendix-Z1 to Z3) found that the TOTAL EFFECTS were significantly affected the most by constructs of Latent L2, L3, and L1, which congruent to the major holistic model, with statistical significantly at p-value < .01

For the major group (ALL), the whole picture showed that most operators in logistics services were totally influenced by Power of Dominants (L2) as the most important key for the development of their competitive advantages. Followed by the units of Service Performance Unit (SPU) were most generated the outcome as Rate factor (y2), and its value quite near to Price focus (x4) in the dominant power factor. Hence, five aspects of SPU output values were also quite similar to the priority key value (SSR). Differences were in Sourcing Techniques (either doing own consolidate or co-load the shipments with others), and also was an indirectly key in influencing all firm's competitiveness.

5.2 CONCLUSION

5.2.1 Size of Business

(TH) = Medium & Small (68 & 35)

(VN) = Large & Big scale (83 & 34)

(CN) = Small & Medium (98 & 43)

5.2.2 Years in Business

> (TH) = Oldest & Newest (48/38)
> (VN) Oldest most & 5-10 Years (103/34)
> (CN) = Oldest 109 and over 5-10 years same to VN (36)

(ALL) Small, Big, and Large were all over 10 years experience, except only Medium (26-50 staff) they are in all level of years.

(TH) Total size S/M/B/L= 22.01%, 42.77%, 19.50%, 15.72%;
Total years 0/1/3/5/10 = 23.90%, 10.06%, 16.35%, 19.50%, 30.19%
Total 42.77% are medium (18.24% of them were less than a year experience from total 23.90%),

(VN) 52.87% are large firm and 45.22% having more than 10 years experience from total 65.61%, for medium and big more than 5 years up; for big & large more than 5 years up

(CN) Most of them are small companies (1-25) = 50.78%, 22.28%, 12.95%, 13.99% respectively. Most of them are Over 10 years = 2.59%, 8.81%, 13.47%, 18.65%, 56.48%

(CN) Most over 10 years (56.48%) and the large scale only 10 years up (12.44%), less than 3 years are only 8.81%, 2.59%

For the large scale of firms which over 100 staff in all countries were having minimum 5 years experiences in the business.

5.2.3 Associations and Membership

15% of Thai has no association, the rest of them 84% are 1 single membership as same as to Vietnam that not over 1 association. Only China has two and three memberships but not many (only 2% each).

71 of 159 Thai service providers joined membership in Local Association, second priority by the foreign association. Most of them were SEA forwarders and half of them were Air 3PL. However, the non-membership was high as 24 companies (15.09% of 159) which nearly to the half of Thai local membership.

Vietnamese service providers most of them were Sea forwarders (44.44% of them were Air forwarders). All of them paid attention to have one membership with an association only.

Chinese forwarders joined in both local and foreign associations (73:70), Sea: Air (17:16) and they are not limited to fix with only one membership or join only one association.

5.2.4 Types of Associations

      All prefer their Local association (Thailand same to China that secondary was others), only Vietnam that their secondary priority was FIATA.

5.2.5 Latent Investigations

      (First Order of Independent variables were tested KSI & KSI)

1) Strategic Sourcing (Insource or Outsource)

      <u>**Thailand:**</u> Most of them selected to "MAKE" own consolidation service, followed by applied both M&B strategy. The strategy of "Only BUY" are approximately only 7% same to Vietnamese.

      <u>**Vietnam**</u>: Most of them applied "BOTH" were the highest of all groups (22.20%), and very less in doing own "make" (1.18% from the whole samples N=509).

      <u>**China:**</u> Most of them applied "BUY" only (20.24%), and utilized "Both" methods as half of the group of "buy only" (12.38%).

      3 Nations were having their specific choice (in their own market) by each nation to apply the Sourcing Strategies differently. This outcome confirmed and would be culture differences

2) Strategic Technique

      By country, the strategy of Make or Buy, or Both were applied differently. Thailand is same to Vietnam when focus only on "Co-load" (Buy) at 23.27% and 24.20%. And Thailand is same to China when focus on only "Consol & Co-load" (Both) at 35.85% and 32.64%

      For Vietnam and China, they have only one same strategy in sourcing that try not to do own "Make" (were the less numbers in this group of doing own consolidation service).

      Then: **SST** = (TH = Make / VN = Both / CN = Buy)

3) Dominant Power in Selection on Sourcing Techniques
Between Groups (All)

      Thailand: selected the office "Policy" comes first (10.81%) was same to China (18.66%), but follow by "Own decision" while China selected their secondary option as "Manager"

      Vietnam: selected their "Manager" comes first, and then follows the office "policy", they were less to listen to their "friends" than better self decision same to China.

      China: "Policy" comes first, and then follows by "Manager" instruction.

Within Group (by Nation) – Focus on Secondary Option

Thailand: (beside the office "policy"), they have their own self-confidence (27.67%), more listen to their "Staff & Friends" than follow their "manager's" instruction.

Vietnam: select "Manager" / "Policy" / "Own" / "Friends" respectively.

China: select "Policy" / "Manager" / "Own" / "Friends" respectively.

Highlight (Strategy): A Thai Friend has more power than a Manager

4) Dominant Power on Selected Suppliers

Between Groups (All)

Thailand: select the "Own decision" comes first (11.39%) then "policy" (7.66%), others were quite not much differences "policy", "friends", "manager" (7.66%, 6.68%, and 5.50%).

Vietnam: selected their "Manager" comes first, and then follows by "Own decision" (8.25%) near to "policy" (6.29%). And they were less to listen to their "friends" same as China.

China: "Manager" comes first and near to "Policy" instruction.

Within Group (by Nation) – Focus on Secondary Option

Thailand: (beside "Own"), they see the "Policy" (24.53%), listen more on their "Staff & Friends" (21.38%), while their "managers" were meaningless (17.61%).

Vietnam: selected "Manager" as highest (47.77%) / "Own" or "Policy" (26.75% and 20.38%) / "Friends" were very less at only 5.10%.

China: selected "Manager" and "Policy" (35.23% and 30.05%) / "Own" (24.87%) quite near to Vietnam (26.75%) / "Friends" were very less at only 9.84%.

Highlight (Relationship): A Thai Manager is Meaningless

Friends for Vietnam & China were Meaningless in both Strategy and Relationship Selections

5) Service Level

Highlight: Cost /Time / Flex. = (All) = 3/1/2 (TH) = 1/3/2, (VN) = 3/2/1, (CN) = 3/1/2

5.2.6 CORRELATION *(Major Model)*

(r > .08 = High) (0.4 < r < 0.6 = Moderate) (r < .04 = Low)

The Relationships by Variables' Correlation (Major Model)

Highest correlations were: COST &Flex (.94); Time& Flex (.902); COST& Time (.901).

Highest correlations in L1 were: Make & Buy (.751)

Highest correlations in L2 were: Price & Policy (.826)

Highest correlations in L3 were: Resources & Risk (.814)

Highest correlations in Cost were: Policy (.709), People (.665), Responsiveness (.622)

Highest correlations in Time were: Policy (.670), People (.654), Responsiveness (.635)

Highest correlations in Flex were: Policy (.694), People (.656), Price (.653).

Highest (DV) means values: Time, Cost, Flex (4.26, 4.23, 4.15)

Highest (IV) means values: y3, y5, x3, y4, x4, x5 (4.14, 4.10, 4.10, 4.03, 3.96, and 3.93)

The Relationships by Latent Correlation (Major Model)

In the correlation matrix ETA and KSI found that the most Latent having most relationship were Latent 2 (DOM) to Latent 4 (SVL) at .77, and the lowest were L1 (MOB) with L4 (SVL) at 0.59. R = L2 & L4 (.77), L3 & L4 (.71), L2 & L3 (.64), L1 & L3 (.62), L1 & L2 (.61), L1 & L4 (.59)

5.2.7 Factor Loading (B) Standardized (Major Model)

Latent-1 (Make or Buy) for the most important factor loadings were: X1 (.91) with R^2 =83%, X2 (.82) with R^2 =68%, and X3 (.86) with R^2 =57% respectively.

Latent-2 (Dominant Power) was: X6 (0.92) with R^2 =85%, while X4 and X5 were similar (0.89) with R^2 =80% and 79% respectively.

Latent-3 (Service Performance Unit) has values of Y2 (.90), Y1 (.89), Y5 (.86), Y3 (.85), and Y4 (.63) respectively or named as:

Rates with R^2 (80%), Reliability with R^2 (79%), Responsiveness with R^2 (73%), Resources with R^2 (72%), and Risk Avoidance with R^2 (54%)

Latent-4 (Service Level Competitiveness) showed that most important factors were: Cost and Flexibility were equal at 0.97 and 0.97 with R^2 =94%, while Time was at 0.87 with R^2 =87%.

5.2.8 Latent Variables Validity and Extraction

By Latent, constructs showed rank as 4/2/3/1 which are SVL/SSR/SPU/SST, the values of Construct Validity (ρ_c) = 0.9693 / 0.9287 / 0.9231 / 0.8708, and Averaged Variance Extraction (ρ_v) =.9135 / .8127 / .7091/ .6931

By variables validity (R^2) = Z3 (.94), Z1 (.94), Z2 (.87), X6 (.85), X1 (.83), Y2 (.80), X4 (.80), X5 (.79), Y1 (.79), Y5 (.73), Y3 (.72), X2 (.68), X3 (.57), Y4 (.54)

By factor loading (b) = Z1 (.97), Z3 (.96), Z2 (.90), Y1 (.84), Y5 (.84), Y3 (.83), Y2 (.81), X6 (.75), X5 (.73), X4 (.69), X1 (.63), Y4 (.63), X2 (.60), X3 (.52)

5.2.9 Research Objectives Fulfillment

1. To find the most significant factors producing the highest impact on the degree of service level's competitiveness in the international logistics business.

2. To investigate the direct effects and indirect effects of variables impacts the logistics service providers' competitiveness in <u>Thailand, Vietnam, and China.</u>

3. To develop a causal model and investigate the generality of the model by invariance model test (case study: <u>Thailand, Vietnam, and China</u>).

Objective 1: The most significant factors on degrees of competitiveness level

Degrees expressed by means of all countries, only the dependent variables were: Flexibility (3.996), Cost (3.912), and then Time (3.908).

Only means by Latent, the most important factor of all countries was: L3 (4.0), L4 (3.93), L1 (3.78), and L2 (3.77). Three Leading factors = Y1 (4.18), Y2 (4.05), Z1 (4.00).

By ranks, the factor loading (*b*) the values were Z1 (.97), Z3 (.96), Z2 (.90), Y1 (.84), Y5 (.84), Y3 (.83), Y2 (.81), X6 (.75), X5 (.73), X4 (.69), X1 (.63), Y4 (.63), X2 (.60), X3 (.52), respectively.

By Sum square (R^2) the most accuracy predictions were: Rates (R^2 =80%), Reliability (R^2 =79%), Responsiveness (R^2 =73%), Resources (R^2 =72%), and Risk Avoidance (R^2 =54%).

Consideration the levels were "High" (*3.51 – 4.50*)

(ALL) = FLEX / COST / TIME = (3.996 / 3.912 / 3.908) = HI / HI / HI (L4= 3.939)

(TH) = COST / FLEX / TIME = (3.692 / 3.686 / 3.516) = HI / HI / HI (L4 = 3.631)

(VN) = FLEX / TIME / COST = (3.949 / 3.873 / 3.688) = HI / HI / HI (L4=3.837)

(CN) = FLEX / COST / TIME = (4.290 / 4.259 / 4.275) = HI / HI / HI (L4= 4.275)

Objective 2: Direct and Indirect Effects to the Model

Major Model:

The causal model of the development of competitive service level of logistics service providers in Thailand, Vietnam, and China were totally affected significantly the most by variables of Latent L2(.48), L3(.36), L1(.15), by Power of Dominants (L2), Service Performance (L3), and Strategic Sourcing (L1) respectively, all were statistical significantly at p< .01

The Competitiveness as Service Level (L4) was affected directly by Direct Effects (DE) from L2 (.37), L3 (.36), and L1 (.06) significantly with p < .01 and it was affected indirectly by Indirect Effects (IE) from L2 (.11), and L1 (.09)

For the Service Performance Unit (L3), it was affected directly by L2 (.30), L1 (.26) and these influence affects were significantly at p <.01

Thailand's Model:

        The causal model of the development of competitive service level of logistics service providers in Thailand totally affected by L2, L1, L3 (.54, .19, .14) respectively. Table 4.35 showed the Direct Effects (DE) and Indirect Effects (IE) for the path analysis.

        The Competitiveness as Service Level (L4) was affected directly by Direct Effects (DE) from L2 (.48), L1 (.15), and L3 (.14) significantly with $p < .01$ and it was affected indirectly by Indirect Effects (IE) from L2 (.06), and L1 (.04)

        For the Service Performance Unit (L3), it was affected directly by L2 (.40), L1 (.28) and these influence affects were significantly at $p < .01$

Vietnam's Model:

        The causal model of the development of competitive service level of logistics service providers in Vietnam totally affected by L3, L2, L1 (.53, .51, .21) respectively. Table 4.36 showed the Direct Effects (DE) and Indirect Effects (IE) for the path analysis.

        The Competitiveness as Service Level (L4) was affected directly by Direct Effects (DE) from L3 (.53), L2 (.35), and L1 (.09) significantly with $p < .01$ and it was affected indirectly by Indirect Effects (IE) from L2 (.16), and L1 (.12)

        For the Service Performance Unit (L3), it was affected directly by L2 (.31), L1 (.23) and these influence affects were significantly at $p < .01$

China's Model:

        The causal model of the development of competitive service level of logistics service providers in China totally affected by L2, L3, L1 (.42, .38, .14) respectively. Table 4.37 showed the Direct Effects (DE) and Indirect Effects (IE) for the path analysis.

        The Competitiveness as Service Level (L4) was affected directly by Direct Effects (DE) from L3 (.38), L2 (.37), and L1 (.08) significantly with $p < .01$ and it was affected indirectly by Indirect Effects (IE) from L1 (.06), and L2 (.05)

        For the Service Performance Unit (L3), it was affected directly by L1 (.16), L2 (.14) and these influence affects were significantly at $p < .01$

Objective 3: Invariance Test and New Developing Model

The invariance tests were done with high contribution results and passed 9 hypotheses (appendix Z1 to Z3). For the new model was shown in the next section 5.3

5.2.10 Summary of Hypotheses Results

All were Rejected H_0 and supported Hypotheses of Alternatives

Table 5.2 Hypotheses Outcome Results

H1	Strategic Sourcing Techniques has a direct relationship to Service Performance Unit
	SST (L1) + SPU (L3)
(ALL)	(R=.582, R^2= .339) SEM: Correlation Matrix = 0.62
H2	Strategic Sourcing Techniques has a direct relationship to Competitive Service Level
	SST (L1) + SVL (L4)
(ALL)	(R=.466, R^2= .217) SEM: Correlation Matrix = 0.59
H3	Strategic Sourcing Techniques has an indirect relationship to Competitive Service Level through Service Performance Unit.
	SST (L1) -> SPU (L3) -> SVL (L4)
(ALL)	(R=.653, R^2= .426)
H4	Dominant Power on Selection has a direct relationship to Service Performance Unit
	DOM (L2) + SPU (L3)
(ALL)	(R=.649, R^2= .421) SEM: Correlation Matrix = 0.64
H5	Dominant Power on Selection has a direct relationship to Competitive Service Level
	DOM (L2) + SVL (L4)
(ALL)	(R=.676, R^2= .457) SEM: Correlation Matrix = 0.77
H6	Dominant Power on Selection has an indirect relationship to Competitive Service Level through Service Performance Unit.
	DOM (L2) -> SPU (L3) -> SVL (L4)
H7	Service Performance Unit has a direct relationship to Competitive Service Level
	SPU (L3) + SVL (L4)
(ALL)	(R=.643, R^2= .413) SEM: Correlation Matrix = 0.71

5.3 Contribution

This study has focused on a theoretical framework on process-based and selection, comparison of logistics service providers in three countries. Further research, commentators recommended to study on exact selling prices than a quartile distribution. Practical practitioners as consolidator or co-loaders prefer to learn the actual prices, identified exact selling rates into the scale of price index. Culture differences in pricing, policy direction and focus contribute to a better understanding concerning which concept is most appropriate in different situations.

Furthermore, how business concepts can be combined needs for organizations to run its business for profit, and meet their customs demands on more competitive service level for future survive.

The hypotheses were comprehensively confirmed as reliable and valid by various statistical investigations. The study contributes to Professionals for organizational competency and competitive measurement. Marginal profitability and serviceability performance were assessed. For researchers, the syntheses attribute, Gaps study analyzed and explored types of scaling and scorings designs. All latent and constructs in both terms (financial and non-financial) illustration provided with observed variables as cognitive items. This framework contributed as a newly guideline researchers as future study.

The generalities of the models were investigated by invariance model test (Appendix-Z1 to Z3).

Finally, the model and items in this study was commented by the expert interviewing ended as an endorsement.

5.3.1 The New Developing Model

The most important latent was "L2" (Dominant power) which had impact to the competitive service level. Secondly by the "L3" (Service performance units) which impact direct to the service level by all five variables, but lowest relationship was "Y4" (Risk avoidance). For the "L1" (Strategic sourcing techniques) will have mainly related to the service level than through the mediator SPU. Hence, the new developing model can be drawn into the new diagram according to the ranks of correlations.

Latent 2 (DOM) to Latent 4 (SVL) had most impacts at .77 and .64 to Latent 3 (SPU). This means that Dominant power in selection was the most important latent affects to competitive service level and to the service performance units. Hence, the new diagram was drawn in figure 5.1 as the new developing model for service level competitiveness of the logistics providers in Thailand, Vietnam, and China.
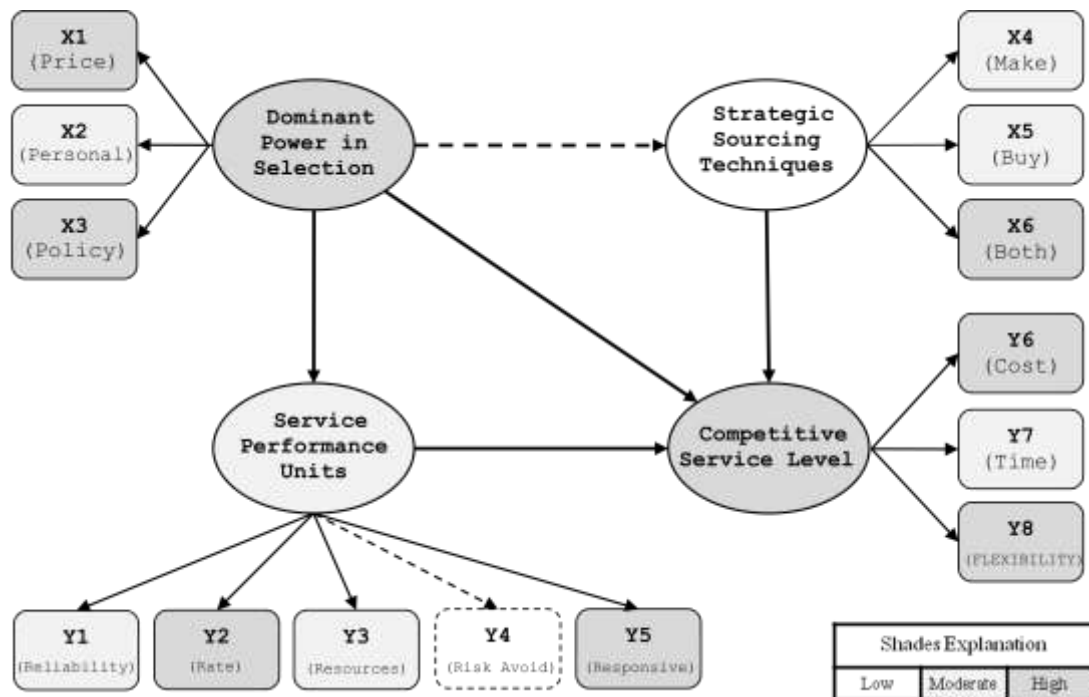
The new model diagram

Figure 5.1 the New Developing Model Diagram

Figure 5.1 showed the important latent relationship by gray-scale shading (white = low relationship, gray = moderate, and dark gray = high). For the white constructs, such as: Strategic Sourcing Techniques (SST) as first latent variable in aforementioned part had low relationship with competitive service level at only .59, therefore, it could be omitted, and eliminate for the next future work, or design to be a separated KSI from the latent 2 (DOM) in the different framework. Meantime, the Risk avoidance factor (Y4) were having less important to all logistics providers.

The Risk Avoidance (Y4) in SPU was also could be eliminated from their five Rs. base, since it was always showed low values and it could explain and understandable into two aspects. First, if the risk was from the God's make (the natural disasters), everyone was accepted and make up mind on it to compensate the claim from loss or damages, then just pay or did not pay according to the company's policy or risk management. Second, not from the god-make but humans' errors and omission, the company may already have the risk coverage management, so the insured or claim amount was not in their interesting or intention to recognize for the compensation.

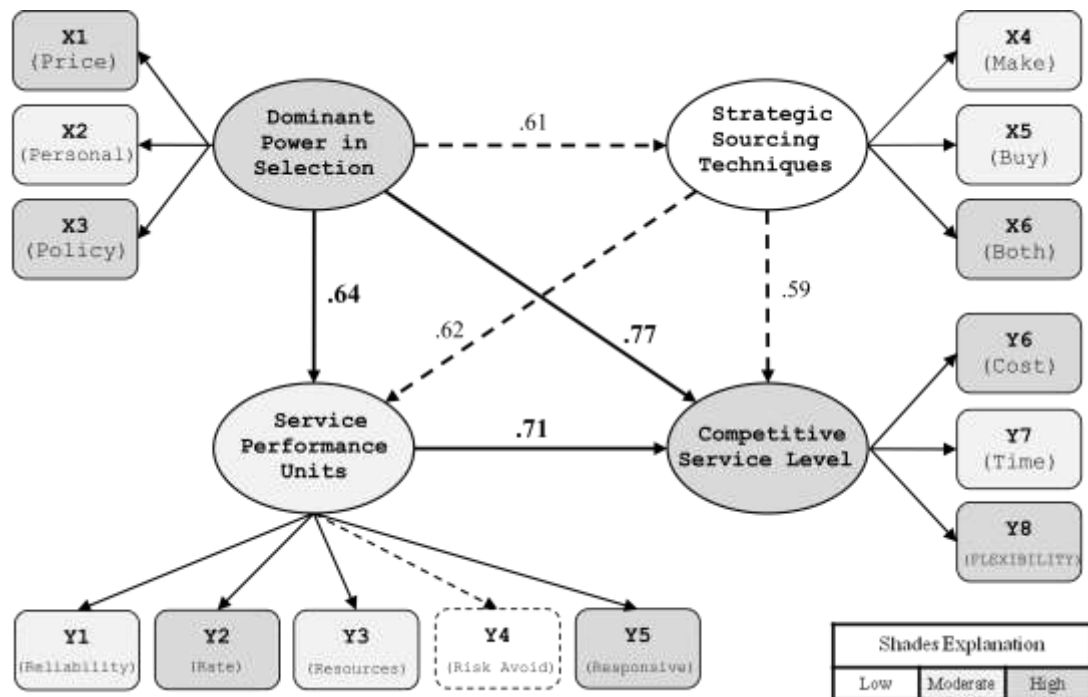**The new model diagram with correlation values**

Figure 5.2 New Causal Relationship Model for Competitiveness of Logistics Service Providers

These reasons always made the Y4 having low values to tune up its degree or eliminate for the future research framework. Table 5.3 showed the new model with the previous R values.

The new causal relationship model from previous correlation matrix which R resulted L2 & L4 (.77), L3 & L4 (.71), L2 & L3 (.64), L1 & L3 (.62), L1 & L2 (.61), L1 & L4 (.59) or in full explanations were:

> **L2+L4 (The Dominant power related to Service Level) at 77%**
> **L3+L4 (The Service Performance Units related to Service Level) at 71%**
> **L2+L3 (The Dominant power related to Service Performance Units) at 64%**
> **L1+L3 (Strategic Sourcing Technique related to Service Performance Units) at 62%**
> **L1+L2 (Strategic Sourcing Technique related to the Dominant Power) at 61%**
> **L1+L4 ((Strategic Sourcing Technique related to Service Level) at 59%**

Remarks: Sourcing Techniques (X4, X5, X6) and Risk avoidance (Y4) elimination is optional.

5.3.2 Model Approval and Endorsement

Research outcomes were sent to the sophomores in Freight and Logistics as Honored Commentators of this study to comment and give suggestions.

<u>3 Honored Commentators</u>

1st: Mr.Viraj Nobnormtham: Managing Director of ECU Line (Thailand) Co., Ltd.
>   (Former: TIFFA Executive Committee)

2nd: Mr. Boonchai Thanamanosarn: Managing Director of Harpers Sea Freight Co., Ltd.
>   (Current: Director of TIFFA)

3rd: Mr. Somchai Banluesanao: Director of ITBS School.
>   (Current: Secretarial of TIFFA)

Comments & Suggestions

(1st) Honored sophomore

1) Extension of Future Work into Specific Samples
 	
    "*Suggest to extend the future work more in specific area of a consolidator in details; the next study would tighten into focus only all master consolidators who only as the Makers.*
 	
    The current study was included the Buyers (Co-loaders), which some case may does not frequently applied own making box (make own cargo consolidation service), the study aims to generalize all LCL society specific than who are the makers or buyers in separately focus.
 	
    Understand that this is a high generality for LCL handlers in transport field.
 	
    Recommend your future research should hold for a particular focus group on point of selling rate skill, than applied to divide pricing levels by only using the quartile percentage".
 	
2) Final Conclusion
    "However, the overall results benefits to my personal opinion and attention".
 	
 Viraj Nobnormtham
Managing Director
ECU Line (Thailand) Co., Ltd.
(Former TIFFA Executive Committee)

(2nd) Honored sophomore

1) Review of Research Outcomes

"*The relationship with freight suppliers seems important in service provider selection, as constrain in limitation and nomination from the management's and their agent's decision. Hence, three most important components as pricing, servicing, and relationship must go in the same direction and being an essential subject to this freight industry. However, it's rare investing budget in advertisement of provider's ability and their service details*".

2) Extension of Future Work into Specific Samples

"*Suggest for extending the future work more in a wider scope of the freight buyer. The future research at a co-loader's sight (as only buyers) would be enriches to fulfill the selecting choices, and confirmed the factors from the buyer's selection*".

3) Final Conclusion

"*The current items in the framework had been well constructed completely in all dimensions, and this study is also an interesting tool in strategies implementation*".

Boonchai Thanamanosarn

Managing Director

Harpers Sea Freight Co., Ltd.

(Director of TIFFA)

(3rd) Honored sophomore

"*This is an interested study and useful for all forwarders/logistics companies.*

The study results had advantages for their planning and shifting of development".

"*It help me for the interested area and understand the neighbor countries*"

"*It will be useful if we have such research launch out annually, and it will be very useful for our association and members*".

Somchai Banluesanao

Secretarial of TIFFA and Director of ITBS School

5.4 Recommendation

For Academicians, the survey and investigations on the independent and dependent variables, models were congruent to the exploratory data. Outcomes were also well supported to the past works related to lean and just in time strategy of Andersson, R., Eriksson, H., and Torstensson, H. (2006). They mentioned that once where the scale efficiency can be maximized, with highly dynamic conditions cannot be dealt with, there is no room for flexibility, focus on perfection, lean, particular market conditions at a certain period of time. The lean concept destroys the flexibility, while the just-in-time engaged in resources spending (trade off time by high-cost).

Another work of Vanichchinchai (2012), Assadej investigated the firm's supply performance measurement by four sub-constructs: Cost (3 items), Flexibility (3 items), Relationship (4 items) and Responsiveness (3 items). His final outcomes showed that the most impact were Relationship (0.89), Responsiveness (0.85), Cost (0.80) and Flexibility (0.73). From his study with six-point scales were applied to evaluate the employee involvement, partnership management, and supply performance in the survey on automotive companies.

Support to this research finding, the results from the logistics companies as Dominant power on relations was the highest impact, (the selected supplier relationship and focus), Cost (0.97), Time (0.87), and Flexibility (0.97)

For Researchers, the statistics investigations on the recursive and non-recursive models were having no any differences significantly by the completely standardized factor loading (B) with the similar results in reverse direction (either H1 or H8).

For Practitioners, Dominant powers in selection are the main keys in both either: select the strategic sourcing or suppliers, these cause direct impact and effects since a manager may expect the different outcome which are: saving cost, best cost or high service responsiveness, flexibility to the team or achieved highest customers' satisfaction.

For Professionals, Dominant powers were engaged in selective process as intangible, uncountable, and subjective. However it results as objective by the performance of a throughput, the efficiency under command, instruction and control by management's decision. The meaningless of a manager in Thailand, affects the hi-pay manager has no control on their sub-ordinates if they make their own decisions.

5.5 Originalities and Implementation

This paper introduced to the new three originalities in the research methodologies and analysis. First, IOC scores applied KR-20, KR-21. Second, apply the Discrimination Power of research tool (r-value) to recheck the IOC scores. Thirds, the generality of model investigated by an invariance test (Stable and Standard), high goodness of fit, and applicable for implementation in all service sectors measurements which origin and studied in Thailand, Vietnam and China.