The Transparency of Supply Chain on IT Industry: From supplier’s perspective

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Abstract

Most of the pass studies of supply chain take various perspectives. Their constructs mostly adopt performance evaluation, supply chain information share, supply chain knowledge, factor of supply chain information share. However, few studies explore these of conceptions in the same time. Lamming argues enterprise of information on base supply chain must be transparency[13]. Therefore, this research adopts Handfield and Nichols’ (1999) Theory: supply chain of information divide to product information, customer information, supplier information, process information, transportation information, stocks information, supply chain alliance information, competition information, sell and marketing information, process and performance of supply information. Blau proposes relation, conformance, commitment, joint value, leader position etc [2]. Those are five effects to information share. This case use relation, conformance, and commitment into the model.

And then the processes are as followed: First, the descriptive statistics of the samples are analyzed. Second, we use Cronbach α to examine the reliability of constructs. Finally, the research hypotheses are tested by the regression and ANOVA analysis.

We get the following results: commitment and the information sharing will influence the degree of information transparency. The information transparency will affect the key performance index and the information transparency is positive related to the key performance index and the firms which have the creative information transparency will get the higher key performance index.

Keyword: Supply Chain Management, Key performance index, information share, information transparency

I. Introduction

Due to the business environmental change, the focus of business administration has shifted from internal integration to external integration, from Enterprise Resource Planning to Supply Chain Management to make the suppliers combine with manufacturers closely to become a chain model. The information could be fast delivered to complete quick response for customer’s requests. Hence, how to deliver the information flow between suppliers and manufacturers quickly and effectively becomes a
critical issue. As the development of Internet techniques grows and the global economical environment stays unstable, the enterprises have to handle much larger information than ever and cooperate with partners much closer. For this reason, the management mechanism of knowledge share and information share had been conducted. Enterprises today implement and enhance their mechanism gradually. Lamming argued that knowledge and information should be expanded; not only share the information with suppliers and manufacturers, but keep the overall enterprise information(such as, financial statement…Etc) transparent[13]. This research seeks to find out the following issues after the implementation of A and B plan:

1. The actual situation of information transparency between suppliers and manufacturers of supply chain, and the effects of trust, commitment, and relation to information transparency between the partners of interviewed companies.

2. The actual situation of performance measurement indicators used by the companies and the effects of information transparency to performance evaluation indicators.

II. Literature Reviews

2.1 SCM

The concept of Supply Chain was first argued by Houlian, this research defined Supply Chain Management as: by information share, member interaction and mutual trust to jointly create an effective and competitive supply chain system to reach the aim to minimize the cost and maximize the profit[7]. Until now, Keah choon believed that the change of SCM strategy today is centering on Cooperate Vision, Strategic Planning, Process, Customer Satisfaction, and Business Result [22]. However, there was difference between supply chain management and tradition management, including purchasing and supply perspective of the industrial buyers and Transportation and logistics perspective of the merchants.

1. Purchasing and supply perspective of the industrial buyers of supply chain managements is synonymous with supplier base integration that evolves from the traditional purchasing and supply management function. It emphasizes that purchasing and materials management represents a basic strategic business process, rather than a narrow specialized supporting function to overall business strategy[19]. It is a management philosophy that extends traditional internal activities by embracing an inter-enterprise scope, bringing trading partners together with the common goal of optimization and efficiency [5]. Supply chain management creates a virtual organization composed of several independent entities and operations, including the integration of purchasing demand management, new product design and development, and manufacturing planning and control. Its short-term objective is primarily to increase productivity and reduce inventory and cycle time. While the long-term strategic goal is to increase customer satisfaction, market share and profits for all members of the virtual organization. To realize those objectives, all strategic partners must recognize that the purchasing function is the crucial link between the sources of supply and the organization itself. the involvement of
2. The transportation and logistics functions of the wholesaling and retailing industry focus on a different aspect of supply chain management. That is, one of location and logistics issues more often than transformation. Its origin can be traced to an effort for better management of the transportation and logistics functions. According to this perspective, supply chain management incorporates logistics focus into the strategic decisions of the business. In such a setup, La Londe and Masters [12] suggest that most of the benefits of forward and backward vertical integration can be obtained by coordinating the logistics operations of independent firms in the value chain. Broadly defined, an integrated logistics system encompasses the integration of processes, systems and organization that control the movement of goods from the suppliers to a satisfied customer without waste [12]. Merchandise must be replenished quickly and arrived where and when it is needed in smaller lot sizes, especially in a JIT system [6]. The goal is to replace inventory with perfect information. Effective coordination of logistics activities, by means of excellent information technology processes is essential to organizational performance.

2.2 Information Share

Seidmann & Sundararajan supposed information share includes exchanging order information, sharing operational information, sharing strategic information, sharing strategic and competitive information [20].

Handfield and Nichols separated the information of Supply Chain into Product Information, Customer Information, Supplier Information, Process Information, Transportation Information, Stock Information, Supply Chain Alliance Information, Competition Information, Sales and Market Information, and Process and Performance of Supply Chain Information [6].

Chang (2001) proposed that information share should be a critical character of SCM, therefore this research integrated the information share levels proposed by Seidmann & Sundararajan [20] with opinions from some other researchers ([20], [6]), besides information share levels have been reduced to 3 levels and they are: Operation Information Level, Management Information Level, and Strategy Information Level.

The first level, Operation Information (level-1): The information exchanged within Operation Information Level is common transaction information. The benefit emphasizes the reduction in order cycle time and human forces and cost dealing with the orders. The information exchanged by both sides in the transaction includes product specification, price, product lead time, product items and conditions. Available IT includes EDI…etc.

The second level, Management Information (level-2): The information exchanged within Management Information Level is the related non-transactional information which affects the transaction quality indirectly, including purchasing, manufacture and transportation…etc. The benefit emphasizes reduction of overall cost and stock, and better co-ordination. The information exchanged
by both sides in the transaction includes the ability of output, production plan, conveyancer, time of deliver, quantity of stock, place of stock…etc. Available IT includes VMI…etc.

The third level, Strategy Information (level-3): The information exchanged within Strategy Information Level is the strategic information of the company such as R&D, pricing, demand forecast…etc. By collecting and analyzing lots of objective information from the POS system to gain some different added values. The benefit emphasizes customer forecast, product sales record, production cost and transportation cost, availability of competitive products, information of market share, promotion plan…etc. Available IT includes CM (Category Management)…etc.

2.3 Information Share issue

2.3.1 Partner Relation

Tseng defined the partner relation as “The relation that each company provides its own core technique between suppliers (seller) and manufacturers (buyer) or the value chained enterprises in the industry, and the integration of each creates the product value for the end-customer [27]. Based on the same perspectives, such as cost-down, decreasing risk, enhancing work or operation performance, every member contacts and supports each other and share the information in the specific period.” Morgan and Hunt indicated that the operational definition of partner relation was trust and commitment [16].

2.3.2 Trust

Blau believed trust is a process of social exchange [2]. Reciprocity results in appreciation, responsibility and trust with each other. Morgan and Hunt defined trust as confidence between the cooperated partners [16]. Positive result could be brought by the opposite party, and the opposite party would not take any unexpected negative act. Mayer et al defined trust between organizations as one side is willing and expecting the other side to complete particular act, and there is no any act like monitoring or control against the other side [14].

2.3.3 Relation Commitment

Blau argued people would find out any possible way to gain the greatest benefit [2]. When people find the perceived best way, there will come a commitment between the exchanging partner relation and they will stop finding other ways. Both sides will show the reliability of this exchange relation by mutual commitment. So the definition of commitment is described as the degree for both sides to receive the greatest benefit that the cooperated partners are willing to guarantee.

2.3.4 Mutual Values

While Blau adopted the exchange from individual level to overall society level, most members in the society had no direct interactions with the society. But they adopted the social relationship structure with mutual norm and values [2]. Morgan and Hunt defined mutual values as mutual acts, targets and strategies in the partnership [16]. Inkpen argued strategic link within the alliance becomes an important character of knowledge management within the alliance [8].
2.3.5 Commission of Leadership

The social exchange theory proposed by Blau indicated that in order to receive the acceptance of group members and obtain more benefits, some benefits would be provided for other members to enhance the relation [2]. But if there are too many people who provide benefits positively and make the society compete and disunite, this would form many leaders and followers. And for the objectives and benefits of the group, the need of integration appears. Inkpen also argued that high level managers is one of the important facilitate factors, and the leadership plays an important role between the strategic links of partners during the process of managing knowledge [8].

2.4 Performance

Scholars had many thoughts on PKI of SCM, such as Beamon[1] separated the KPI of SCM as customer response and cost; Tégen[21] standed for resources, outputs and flexibility; Bowersox & Closs[3] considered that PKI includes cost, productivity, customer service, asset measurement; According to American Supply Chain Management Association, the PKI includes SCM reliability, flexibility and response, cost, assets. We could know something from their viewpoints that the main parts focus on the dimension of cost, customer satisfaction, quality management and asset measurement. This research focused on these main indicators to proceed with interview and questionnaire. There might be differences between these dimensions and the quantitative indication dimension of demonstrative plans, mainly referred to the difference in each plan and the SCOR model. Consequently, there are 4 dimensions for the demonstrative plan indicators, ‘price inquiry, purchase and production, push of the lack’, 'goods receiving, acceptance test and payment, balance check ', 'customer order and production control’, 'goods delivery, acceptance test and payment, balance check’.

2.5 Information Transparency

The possibility that the customers and suppliers could exchange information and knowledge within the supply chain, relationships and confidence has decisive effect. Therefore, relationship and trust are main factors affecting the information transparency of supply chain. Wider concept of information share brought by the Internet created the transparency. The pressure to those dealers of providing appropriate transparency during the production process is primarily from groups, government, customers and etc. Hence, when attempting to use transparency to provide the market, the key point is how to make the transparency a professional relation, such as, collaboration design, long-term partner relation, and fair information share. The origins of transparency were separated into 3 stages:

First developed from research in the late 1980s as an alternative to traditional techniques, the concept of transparency in supply relationships arose during the development of the lean supply paradigm [13]. Originally based upon extensive work in the global automotive industry, the loan supply paradigm includes the application of radical techniques in removing activities deemed wasteful. No traditional factor is taken as prima facie necessarily wasteful by the loan approach. Indeed, apparently high inventory levels may be necessary for agility in responding to market dynamics, while
idle time may be necessary for learning to take place in a system.

In the mid-1990s, a second phase of research conducted in a variety U.K. companies outside the automotive industry revealed the difficulties organizations might face in trying to implement cost transparency[13]. The principal finding of this case based work was that inhibitors to transparency could be classed as structural or operational. The conclusion was that effective implementation of the concept would be facilitated by the removal of parts of a system, rather than introduction of new mechanisms.

Conducted between 1998 and 2000, the third phase of the research involved working with a large high technology systems manufacturer in the aerospace industry. As reported below, the practical outcome of this research contributed toward not only a clearer understanding of the conceptual and practical complexity and nature of transparency but also a framework for discussion.

Lamming [13] Transparency include Opaque • Translucent • Transparent. In Geological case (light shining through mineral); Opaque that Light cannot even penetrate the surface of the substance. Translucent that Light can enter and exit the surface of the substance, but with distortion. Transparent that Light enters and exits the surface relatively undisturbed. In contract, in business case (information shared between two organizations), Opaque that for any of a variety of reasons, no information is shared between the parties; even operational day-to-day information is obscured. Translucent that outline information only is shared-inter-face conditions or partial data. This can be similar to “black box” collaborative design. If used tactically, it may be akin to cheating. Transparent that information is shared on a selective and justified basis. Development of information leads to shared knowledge and collaborative abilities.

### III. Researching Method

“Case Study” and “Survey Study” were chosen as the researching method. The questionnaire measurement and hypothesis establishment were preceded first according to the received data from the studied case. ANOVA was used to evaluate the research model and hypotheses. This research put several analysis listed below: 1. Descriptive Statistics: to calculate the mean and standard variable of each variable to investigate the sample distribution 2. Reliability and Validity Analysis: the Cronbach $\alpha$ of variables and independent variables were calculated to test the internal consistency. Construct validity and content validity were used to test the validity 2. Factor Analysis: Principle component analysis was used to analyze the independent items and dependent items which are proposed by the researcher. The result refined the factors, that items with lower factor loadings or duplicated were removed, and items were re-categorized. 4. Regression Analysis: ANOVA in SPSS was used to investigate the relationship between independent items and dependent items to evaluate the research model and hypotheses.

3.1 Research model

The model had two parts. The first part included partner relation, trust, commitment, and
information share motive. The second part included degree of information transparency and key performance factors of SCM.

3.2 Research Hypotheses

In this section, relations among elements are explained, and related research hypotheses are defined.

3.2.1 Relation between cooperated partners and degree of information transparency.

According to Hansen (1999), with closer relation, mutuality, and reciprocity, the possibility to share sensitive information is increased. Also, Inkpen proposed that because of the reciprocity and mutual technical share between the cooperated partners, the financial issues would be ignored [8].

H1: The greater the relation between cooperated partners, the greater the degree of information transparency.

3.2.2 Mutual trust between cooperated partners and degree of information transparency.

In the research on knowledge share from IT department to other departments conducted by Nelson and Cooprider[17], they proposed that trust is an important effecting factor of information share, and Parker’s research [18] indicated that the information uncertainty means the lack of trust. Kim and Mauborgne[11] believed that trust is able to lead to share and voluntary cooperation, once people absolutely trust somebody, they will voluntarily share their information.

H2: The greater mutual trust between cooperated partners, the greater the degree of information transparency.

3.2.3 Mutual commitment between cooperated partners and degree of information transparency

Blau[2] argued that the process of exchange would develop through time. The both sides would
show the reliability of the exchange relation by mutual commitment continuously. Parker [18] also proposed that a positive commitment is very important in the cooperation relation.

**H3: The greater commitments between cooperated partners, the greater the degree of mutual information transparency.**

### 3.2.4 Information share motive between cooperated partners and degree of information transparency

Jensen & Meckling[10] proposed that according to business cooperation theory, if the objectives of both sides conflict, speculative acts might occur. According to Jap [9], when the one side of exchange parties doubts that the other side might have speculative acts, the information share becomes an unwilling or reluctant act and it is disadvantageous to the exchange act. If it is unwilling or reluctant to share information, the categories and times of information share will decrease. In other words, if the both sides have the same objective and the motive of information share is matched, the partners will be willing to cooperate with the exchange act and provide sufficient information. For this reason, the degree of information transparency would change with the different motive of information share. This research discussed the related issues from 7 motives, ‘Stock Control’, ‘Market Demand Enhancement’, ‘Order Efficiency Improvement’, ‘Business Operation Sharing’, ‘Benefit Expansion’, ‘Market Opportunity’, ‘Competitive Advantage ’.

**H4: The greater the motives of information share between cooperated partners, the greater the information transparency with each other.**

### 3.2.5 Degree of information transparency and PKI of SCM

Parker [18] argued that the average share of benefits between cooperated partners would affect information share. Tsai [24] indicated that if the organization memory (knowledge in other words) level is higher, the market information processing process (information share) will affect marketing innovation. Hence, if the degree of transparency is higher in information category, it will affect the PKI. This research used ‘cost’, ‘customer satisfaction’, ‘quality management’ and ‘asset’ as the performance measurement indicators.

**H5a: Degree of information transparency between cooperated partners has significant influence on performance indicators of cost.**

**H5b: Degree of information transparency between cooperated partners has significant influence on performance indicators of customer satisfaction.**

**H5c: Degree of information transparency between cooperated partners has significant influence on performance indicators of production.**

**H5d: Degree of information transparency between cooperated partners has significant influence on performance indicators of quality management.**

**H5e: Degree of information transparency between cooperated partners has significant influence on asset.**
3.3 Development of Measurement Dimensions

The development steps were separated into several stages and based on the transparency level proposed by Lamming [13].

1. Confirmation of the construct of transparency.
   It is This research included degree of information transparency, performance indicator, factor of transparency uncertainty and information share motive.

2. Development of Measurement Items
   Based on the comprehensive literature review, the items were addressed and sorted at random. The direction for questionnaire was added on the questionnaire.

3. Data Collection
   This research used random sampling to investigate the transparency of performance indicators from some Tier-1 companies and suppliers.

4. Data Analysis
   The Cronbach α of each dimension and the item to total coefficient of correlation were calculated in advance. Those which were lower than others or able to be removed for improvement were deleted in order to increase the consistency of each dimension. Then the existing items in each dimension were mixed to increase the external validity, and exploratory factor analysis was used to decrease the dimensions. Items appealed in two dimensions were deleted.

5. Factor Analysis to confirm the new dimensions and the included items.
   Calculate the linear compound reliability to understand the internal consistency.

6. Confirmation of reliability and factor structure.
   Reconfirm the reliability of the measurement dimensions in this research and the consistency with factor structure.

7. Regression Analysis to validate the relationship between information transparency and performance.

3.4 Sample

The research samples are from the supplier list of B plan final report. There were 1937 suppliers joined A and B plan. After removing the tier-1 companies and some lower-level suppliers, 1000 suppliers left on the list. Then the detailed contact information of 300 samples available for mailing was obtained from the list of 104 job bank. First, total of 100 questionnaires were sent by mail. Only 15 questionnaires were collected after the follow-up phone for a month. Due to the time limit, another 190 questionnaires were distributed by mail, and 10 questionnaires were entrusted to known sales representatives to proceed phone interviews. Total of 30 questionnaires were collected. But apparently it was still insufficient and could not represent the industry. Finally through another cooperated channel, questionnaires were distributed by entrusted sales representatives and personal phone interview. 63 were collected. Eventually 108 samples were collected from the beginning of April to the end of June.
IV. Data Analysis and Findings

4.1 Case Study

4.1.1 Information Share Motive of the Company

Company A is one of the Tier-1 companies in B plan. It has lots of information. We found the objective that leads Tier-1 companies to be willing to share information with suppliers is for controlling its own stock and avoiding bullwhip effect. Further, they want to make the quotation of product more open and transparent to not only enhance competitive advantages and improve the efficiency of ordering by the mechanism of online information transparency, but increase the market demands to become the top leader. However, the positions of the Tier-1 companies and suppliers are quite different. According to the interview with company B and H, suppliers considered that they are the disadvantaged minority in the entire supply chain, and tried to expand the benefits, take the market opportunity, bring much more profit and enhance its own competitive advantages by information transparency. C, D, E, F, and G argued that participating the supply chain sharing information implied the purpose to control stock, improve order efficiency, enhance market demand, maximize its own benefit and gain better competitive advantages. No doubt different motives affect the degree of information transparency. As the Tier-1 company, the motives of information share are to control stock, enhance market demand, improve order efficiency. Company A considered that the disclosure of product specification, prime cost, transaction record, product line, output of production, production plan and benchmark information helps its own motives to share. Supplier B and H disclosed transportation cost, information between supply chain partners. C, D, E, F and G disclosed part of information.

4.1.2 Actual situation of information transparency

There is too much and complicated information in the supply chain. This research had set up some information within the supply chain to be discussed through the interview in advance, primarily focusing on the problem that how companies are willing to make information transparent and the actual situation. Company A is willing to disclose the following information such as, product specification, prime cost, product line, lead time of product, output of production, production plan, benchmark information and maker share information. And all the above information is publicly shared in the actual process. Moreover, Company B, C, D, F, G and H are willing and actually share further information, such as customer prediction, customer transaction record and partner information within the supply chain. Company E said that there is still a gap between being willing to make information transparent and actually doing so. Although, information like prime cost, transportation cost, POS information, promotion plans...etc is on the willing list to be disclosed, but the actual degree of transparency is much lower than what we expected due to the consideration of company profit. In contrast, transaction record and lead time of product were the two items that company was not willing to disclose, but the actual degree of information transparency was higher. The results of this study indicated that companies have already considered how the actual situation might be when they are attempting to
disclose the information transparently. The difference between the willing and actual situation is unapparent. The degree of information transparency in the questionnaire of the research sought for the actual transparency.

4.1.3 The establishment of performance indicators of supply chain

Performance indicator of supply chain is an important basis for measuring the participation of a company. Company A, as one of the Tier-1 companies in B plan has more and complete indicators. A used purchasing cost, order processing cost, transportation cost, stock cost, customer complaint and customer response time according to the Policy of Cost and Customer Satisfaction by Beamon (1996), and achievement rate, out of stock rate, market share rate, sale rate of new product, return rate, dull sale rate, stock turnover rate, stock cycle, logistical stock and stock in transit as the indicators according to the theory from the Association of American Supply Chain Management. There were little differences in the indicators, because the implement of supply chain mechanism of B, C, D, E, F, G were guided by the Tier-1 company. Likewise, we found that information with greater transparency provides better assistance in establishing the related performance indicators. Company B, D and E considered that the greater the transparency of prime cost, transportation cost and stock is, the better the performance indicators of cost are. C, D, E, H and F believed that the greater the transparency of customer prediction and customer transaction record is, the greater the assistance in dealing with customer complaint and order achievement is. E and H also argued that if the transparency of stock, output of production, production plan and stock place is greater, the stock turnover rate and stock cycle could be extended, and logistical stock and stock in transit would decrease.

4.1.4 Relations between cooperated partners and information transparency

Company A, which is a Tier-1 company, would spare no pains to maintain the partner relation with the suppliers, and execute the agreements made before. However, company B, C, E, F, G and H would be willing to maintain the partner relation, but they might doubt about what the Tier-1 company has done and would not do their best effort to execute the agreements. Company D had a strategic alliance with A, so D supposed that A would do its best to meet the demands of both and had no doubt of the Tier-1 company. It is known clearly from the interviews that although there was no partner relation between B, C, E, F, G, H and A, but information was still provided to the tier-1 company. As the viewpoint of the case, partner relation is not an important factor influencing information transparency. However, the case of company D showed there is still some influences between partner relation and the company.

4.1.5 Trust between cooperated partners and information transparency

Company A believed it fairly trusts the suppliers, but selectively shares information with them due to several reasons. However, only D discovered this problem, but B, C, E, F, G and H believed that Tier-1 company would not selectively share the information and do not doubt about the information from Tier-1 company. The most important is that it is not able to discover the accuracy and reliability of information. Consequently, the greater trust between cooperated partners is not equal to the
information transparency.

4.1.6 Commitment between cooperated partners and information transparency.

Company A believed based on the enterprise commitment, Tier-1 company provides all assistance the suppliers need in any situation and makes beneficial decisions for them. Though, B, C, D, E, F, G and H do not believe Tier-1 company will provide any necessary assistance. But it is never easy to find a new Tier-1 company to replace the current one. As a result, they will ask for greater transparency with greater commitments.

4.2 Measurement Model

4.2.1 Information Transparency and Performance Indicators

The greater the degree of information transparency was, the more significant influence the performance indicators in cost had. There was significant difference, while P-value was 0.014. The greater the degree of information transparency was, the more significant influence the performance indicators in customer satisfaction had. There was significant difference, while P-value was 0.030. Several things were found via the regression analysis. Greater overall information transparency had no influence on performance indicator in production. There was no significant difference, while P value was 0.616. Greater overall information transparency had no influence on performance indicator in quality. There was no significant difference, while P value was 0.549. Greater overall information transparency had influence on performance indicator in asset. There was significant difference, while P value was 0.043.

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<th>F-test</th>
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<td>Cost</td>
<td>5.887</td>
<td>0.017*</td>
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<td>Production</td>
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<tr>
<td>Quality</td>
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<td>0.549</td>
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<tr>
<td>Asset</td>
<td>4.189</td>
<td>0.043*</td>
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* means P < 0.05

4.2.2 Information Transparency and Motives Affecting Information Share

The information share motive of raising industrial relations has no significant influence on overall information transparency. There was no significant difference, while P value was 0.105. The information share motive of raising systematic operation performance has significant influence on overall information transparency. There was significant difference, while P value was 0.045.

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* means P < 0.05
4.2.3 Influence factors of information transparency

Regression analysis was also used on “Mutual Trust” and “Mutual Commitment”. The greater the companies trust each other, the greater the information transparency is. Meanwhile, if the mutual commitment is greater, the information transparency is greater too. Though, this result did not match with the case. The primary reason is the different point of consideration in each company.

When mutual trust remains between suppliers and tier-1 companies, the degree of information transparency of supplier side will not increase due to the increase of mutual trust to the Tier-1 company, and increase the mutual information transparency. There was no significant difference, while P-value was 0.625. When mutual commitment remains between suppliers and tier-1 companies, the degree of information transparency of supplier side will increase due to the increase of mutual commitment to the Tier-1 company, and increase the mutual information transparency. There was significant difference, while P-value was 0.002.

Table III Influence factors of information transparency

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<tr>
<td>information share motive of raising systematic operation performance</td>
<td>4.130</td>
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*means P < 0.05

V. Contributions and Suggestions

Through the case study and the statistical analysis of each variable, the results are listed below.

5.1 Mutual Commitment

After putting the regression analysis on the actual data, it is known that the transparency degree of all information is enhanced if the commitment to the Tier-1 company is greater. For overall information transparency, mutual commitment is an important factors influencing the overall information transparency (P<0.05). The level of result is matched with what Pan(2002) had done on the
topic “the influence of commitment and product information share”. In conclusion, the greater the mutual commitment between companies and the suppliers remains, the greater the overall information transparency is. The degree of mutual commitment should be paid much attention to when running C, D and E plans in the future.

5.2 Mutual Trust

The regression analysis results showed that transparency degree of competitive information is not increased by the trust to Tier-1 Company. On the contrary, some other information is increased due to the greater trust to Tier-1 Company. For overall information transparency, mutual trust is not an important factors influencing the overall information transparency (P>0.05). The level of result is matched with what Pan(2002) had done on the topic “the influence of trust and information share.” This might resulted from the targets of questionnaires, who are mostly the cooperated partners. The variable Trust already had a positive influence due to the partner relation. In conclusion, appropriate degree of mutual trust should be kept between companies and suppliers when running C plan.

5.3 Partner Relation

The Cronbach $\alpha$ for reliability was too low to be reserved. However, according to Pan’s[23] research “the influence of relation and information share”, relation has no significant influence with information share. The main reason which resulted in this was if the company recognizes the other side as a partner.

5.4 Information Share Motive

From the viewpoint of information transparency, stock control, market demand enhancement, market opportunity and competitive advantage are the primary motives affecting information transparency. The four motives listed above were also the goal that B plan set to achieve. For this reason, the greater the influence that the four motives brought, the great the information transparency is. In the other hand, the reason that the three motives, including order efficiency improvement, business operation sharing, benefit expansion, did not have a significant influence was most interviewers were placing the orders with online purchase system, and there was a positive relation to the order efficiency. As a result, the information transparency was not significantly influenced.

5.5 Information transparency and performance measurement indicators

The greater the information transparency is, the greater the performance measurement indicators of cost and customer satisfaction are. Moreover, the performance of the ones with higher information transparency was significantly better than the lower ones. It showed that the importance of information transparency and the different level of owned information might lead to different performance.

In conclusion, the performance measurement indicator is influenced by the information level the company owns. If the company wants to improve the performance, the improvement of information transparency should be paid attention to and a well-done transparency mechanism should be conducted too. For the degree of information transparency, company has to create commitments with others
seriously to enhance the degree.

References
