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Performance Determinants for Convenience Store Suppliers

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***Abstract*—**This paper examines the impact of information and communication technology (ICT) usage, internal relationship, supplier-retailer relationship, logistics services and inventory management on convenience store suppliers' performance. Data was collected from 275 convenience store managers in Malaysia using a set of questionnaire. The multiple linear regression results indicate that inventory management, supplier-retailer relationship, logistics services and internal relationship are predictors of supplier performance as perceived by convenience store managers. However, ICT usage is not a predictor of supplier performance. The study focuses only on convenience stores and petrol station convenience stores and concentrates only on managers. The results provide insights to suppliers who serve convenience stores and possibly similar retail format on factors to consider in improving their service to retailers. The results also provide insights to government in its aspiration to improve business operations of convenience store to consider ways to enhance the adoption of ICT by retailers and suppliers.

***Keywords*—**Information and communication technology (ICT), internal relationship, inventory management, logistics services, supplier performance, supplier-retailer relationship.

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I. Introduction

THE ongoing price war among major retailers having an adverse effect on the small retailers as this phenomenon contributes to consumers become more cautious with their spending. In order to be competitive, the small retailers have to become extremely price-competitive. Thus, the small retailers need to improve operational procedures and to enhance efficiency [1]. In view of this, the sundry shops in Malaysia is slowly being transformed to be modernized in line with the government's aspiration to improve the business performance of the traditional sundry shops. Transformasi Kedai Runcit (TUKAR) or Small Retailer Transformation Programme was launched in 2011 to materialize the government's aspiration to modernize business operations of the traditional sundry shops. Convenience stores to some extent replaced the traditional general stores or sundry shops [2], [3], [4].

To ensure the success of TUKAR, one of the strategies developed by the government is to establish local distribution centres [2], [3], [4]. This shows that the suppliers and logistics service providers play important roles in determining the success of small retailers by ensuring the availability of products at retailers' premise to facilitate sale. However, the detailed study concerning supplier performance in the retail sector in particular the convenience store remained unclear.

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Thus, this study aims to overcome this shortcoming in previous literature by investigating the determinants of supplier performance as perceived by convenience store managers. To gain in-depth understanding on the determinants of supplier performance, factors such as ICT usage, internal relationship, supplier-retailer relationship, logistics services and inventory management were investigated.

II. Literature Review

A. Convenience Store

A convenience store is a retail business that emphasize on providing the public a convenient location to purchase consumable products and services. Convenience stores can be divided into two types: 1) Convenience stores that include a broad merchandise mix and extended operations hours. 2) Gasoline stations with convenience stores which sell groceries, tobacco products, meals, snacks, soft drinks, toiletries and newspaper [5]. Two hundred and seventy five responses of this study were from these two types of convenience stores.

B. Supplier Performance

Unpredictable situations in supply chain can arise from upstream suppliers such as reliability of product quality and downstream customers such as product forecast errors. Thus, better supply chain responsiveness can be achieved by reducing uncertainties and by improving supply chain flexibility [6]. Supplier flexibility in responding to retailers needs with customized, high quality products and delivery systems at a reasonable price contribute to good customer service [7].

C. Information and Communication Technology (ICT) and Relationships

In today's competitive environment, many retail firms try to capture relational resources through partnering and store their informational resources through technological utilization like electronic data interchange, customer relationship management, and database management [8]. Information sharing is recognized as a key requirement in collaborative inter-organizational relationships [9]. ICT utilization facilitates the transmission of information between suppliers and retailers which results in the ability of the suppliers to respond to the changing demand of the retailers. Collaborations between suppliers and retailers in information sharing and decision synchronization enable them to support the achievement of common goals among them and improve business performance [10], [11]. Common goals and objectives assure collaborative firms a win-win relationship [12], [13]. This is a source of competitive advantage. However, [14] postulates that ICT usage is only valuable in improving operational performance if supply chain partners such as suppliers, logistics service providers and retailers are ready and willing to engage in ICT usage.

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Investments in ICT would only lead to marginal improvements if supply chain partners do not share similar perceptions towards the importance of doing so [14]. Collaborating with supply chain partners helps companies to contain the negative impact on cost as well as maintaining operations [15]. This is achieved when supplier and retailers realize the benefits of ICT usage and to remove the unnecessary barriers that hinder ICT utilization.

The following hypotheses are thus suggested:

H1: There is a significant positive relationship between ICT usage and supplier performance.

H2: There is a significant positive relationship between internal relationship and supplier performance.

H3: There is a significant positive relationship between supplier-retailer relationship and supplier performance.

D.Logistics Services

Logistics services include transportation, warehousing and related activities that support business operations of the suppliers in delivering the products to convenience stores on time. Transportation refers to the movement of products from one location to another. Frequent promotions offered by retailers to end users contribute to product demand uncertainty which can affect vehicle demand. While road congestion represents the biggest issue leading to delivery uncertainty in the grocery and retail sectors. The application of transport consolidation, good transport planning and sharing of information between supply chain partners through sufficient supply chain integration can overcome these problems and improves the efficiency of transport operations [16]. It is therefore interesting to explore the relationships between the variable through the following hypothesis:

H4: There is a significant positive relationship between logistics services and supplier performance.

E. Inventory Management

Inventory can be used as a means of improving customer service levels by reducing the likelihood of stock out due to unanticipated demand or variability in lead time [17]. Coordination is necessary to ensure the right products and quantity received at the right time [18]. Information sharing is influenced by long-term relationship between suppliers and retailers which enhances collaboration between them [19]. When the suppliers are aware of the inventory requirements of the retailers, the suppliers can improve their service level to convenience stores. Thus, the following hypothesis is suggested:

H5: There is a significant positive relationship between inventory management and supplier performance.

As a summary, Figure I shows the research framework and the five proposed hypotheses to be tested. It is posited that ICT usage by retailers and suppliers (H1), internal relationship among convenience store employees (H2), supplier-retailer relationship (H3), logistics services (H4) and inventory management of convenience stores (H5) would lead to supplier performance.

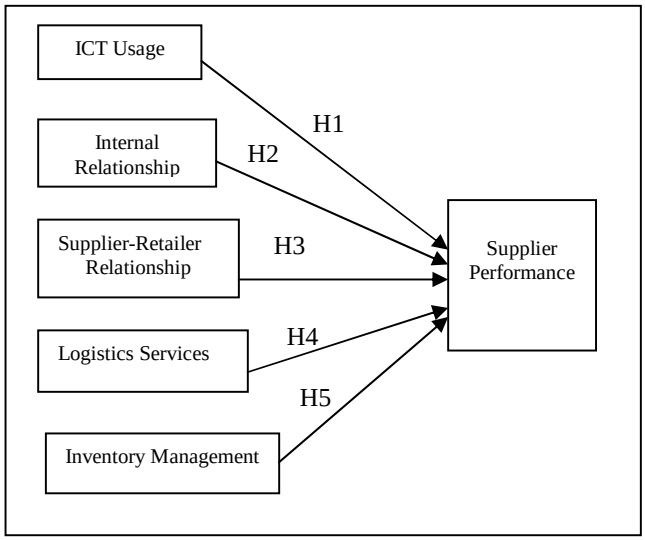


Fig. 1 Conceptual framework of supplier performance determinants

III. Research Methodology

The items for this study were adapted from previous research studies including: [20], [21]. However, the production of goods is not included in this study since retailing is not involved with production of goods. Hence, several items related to production of goods listed in the original research studies were excluded in this research. The seven-point Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree) was used to measure the variables. To ensure content validity, a focus group interview and pilot study were conducted to seek information from the retailers pertaining to related issues in retailing. Their input was gained through structured interviews and was helpful in improving the questionnaire in regards to its wording, clarity and relevance.

The convenience stores chosen for this study were convenience stores that include a broad merchandise mix and extended operations hours; and petrol station convenience stores. The targeted population comprised of convenience store managers and petrol station convenience store managers in Malaysia. The managers were selected because they oversee the daily operations of the store to ensure good service to end customers. Thus they are well versed in supplier performance related matters as this leads to customer service. Two hundred and seventy five usable responses were received from both types of convenience stores (56.12% response rate). The return rate is considered high and therefore enables the generalization of the results obtained [22].

IV. Findings And Analysis

A. Descriptive Statistics

Table I presents a summary of the respondent characteristics. Responses from convenience stores, 58.9% and 41.1% was from petrol station convenience stores. Majority of owner ethnicity is Malay (46.5%) and Chinese (43.6%). Highest number of responses was from the Central region (Selangor, Perak, Kuala Lumpur and Putrajaya, 26.9%).

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Highest number of years of business establishment was between five to ten years (35.6%).

TABLE I
RESPONDENT CHARACTERISTICS

Respondent Characteristics	No of firms	Percentage
Retail type:		
Convenience store	162	58.9
Petrol station convenience store	113	41.1
Total	275	100.0
Location:		
Northern region	13	4.7
Central region	74	26.9
Southern region	65	23.6
Eastern region	17	6.2
Sabah	63	22.9
Sarawak	43	15.6
Total	275	100.0
Owner Ethnicity:		
Malay	128	46.5
Chinese	120	43.6
Indian	4	1.5
Others	20	7.3
Missing value	3	1.1
Total	275	100.0
Years of establishmnet:		
<5 years	75	27.3
5-10 years	98	35.6
11-15 years	39	14.2
16-20 years	18	6.5
>20 years	43	15.6
Missing value	2	0.7
Total	275	100.0

B. Factor Analysis

Factors associated with supplier performance were investigated using measures of supplier performance, ICT usage, internal relationship, logistics services, inventory management and supplier-retailer relationship. The statements were factor analyzed to reduce the data to meaningful factors. This will simplify data for possible interpretations and in identifying relationships among variables [23]. The six variables were purified by deleting poorly loaded items. For this purpose, principal components analysis was used with varimax rotation.

The factor analysis conducted in this study found the scales loading with eigenvalues greater than 1.0 and more than 50 percent of total value explained of each construct. The Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy (>0.60) indicated a practical level of common variance (Table II). The Bartlett's Test of Sphericity is significant at 0.01 levels implying overall significance of the correlation matrix.

TABLE II
FACTOR ANALYSIS RESULTS

Variables	KMO Measure of Sampling Adequacy	Initial EIgenvalues	Percentage of Total Variance Explained
Supplier-Retailer relationship	0.916	9.454	64.62
ICT usage		2.928	
Internal relationship		1.835	
Supplier performance		10.39	
Logistics services	0.929	2.28	62.46
Inventory management		1.78	

C. Reliability Analysis

A reliability analysis using Cronbach's Alpha was conducted on these variables namely supplier relationship, ICT usage, supplier-retailer relationship, logistics service, internal relationship and inventory management in order to establish the internal consistency values [22]. Reliability coefficients in the range of 0.70 to be acceptable, while those above 0.80 to be good [22], [23]. The reliability analysis for all the constructs shows the Cronbach's Alpha value range from 0.87 to 0.92 exceeding the recommended cut-off point of 0.7. This demonstrates that all the research variables are internally consistent and have acceptable reliability values (Table III).

Summary of the descriptive statistics (mean and standard deviation) of the variables and Cronbach's Alpha coefficients are shown in Table III.

TABLE III
MEAN. STANDARD DEVIATION AND CRONBACH.S ALPHA OF THE VARIABLES

Variables	Mean value	Standard deviation	No. of items	Cronbach's Alpha
ICT usage	5.22	1.35	6	0.919
Internal relationship	5.65	0.92	6	0.902
Supplier-retailer relationship	5.07	1.17	6	0.877
Logistics services	5.20	1.22	6	0.917
Inventory management	5.56	0.92	8	0.868
Supplier performance	5.35	0.93	9	0.908

D. Correlations Analysis

The correlations among the variables offer some initial support for the hypotheses (Table IV). The relationship between measures of supplier performance was investigated using Pearson product-moment correlation coefficient. The results indicate that inventory management, supplier-retailer relationship, logistics services, internal relationship and ICT usage are all positively and significantly associated with supplier performance ($r=0.650$, $p<0.01$; $r=0.626$, $p<0.01$; $r=0.598$, $p<0.01$; $r=0.542$, $p<0.01$; $r=0.318$, $p<0.01$, respectively).

TABLE IV
PEARSON PRODUCT-MOMENT CORRELATIONS BETWEEN MEASURES OF SUPPLIER PERFORMANCE

Variables	ICT	IR	SRR	LS	IM	SP
ICT usage (ICT)	1					
Internal relationship (IR)	.480 (**)	1				
Supplier-retailer relationship (SRR)	.348 (**)	.538 (**)	1			
Logistics services (LS)	.453 (**)	.490 (**)	.542 (**)	1		
Inventory management (IM)	.393 (**)	.538 (**)	.496 (**)	.516 (**)	1	
Supplier performance (SP)	.318 (**)	.542 (**)	.626 (**)	.598 (**)	.650 (**)	1

Note: ** Significance at p-value **< 0.01 level (two-tailed)

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E. Multiple Regression Analysis

Multiple regression analysis was used to determine the influence of ICT usage, logistics services, inventory management, internal relationship and supplier-retailer relationship on supplier performance. The result is presented in Table V. The model is significant (F value = 77.574, $p<0.001$). The R^2 of 0.590 indicates that 59.0% of the variance in supplier performance can be explained by the five independent variables: ICT usage, logistics services, inventory management, internal relationship and supplier-retailer relationship. Table V also illustrates that only four variables; logistics services, inventory management, internal relationship and supplier-retailer relationship have significant positive influence on supplier performance as the t value is greater than 1.0 and significant at the 0.001 level and 0.05 level [23]. The strongest contributor to supplier performance is inventory management (β=0.352), followed by supplier-retailer relationship (β=0.285), logistics services (β=0.243) and internal relationship (β=0.122). Consequently, H2, H3, H4 and H5 were all supported by the data. However, ICT usage ($p=0.059$, $p>0.05$), was not supported by the data. Thus, hypothesis 1 is rejected.

TABLE V
MULTIPLE REGRESSION RESULTS FOR INDEPENDENT VARIABLES AND DEPENDENT VARIABLE (SUPPLIER PERFORMANCE)

Variables	Standardised Coefficient (Beta)	t-values	Significant
ICT usage	-0.089	-1.900	0.059
Internal relationship	0.122	2.323	0.021*
Supplier-retailer relationship	0.285	5.605	0.001**
Logistics services	0.243	4.711	0.001**
Inventory management	0.352	6.989	0.001**
R^2	0.590		
Adjusted R^2	0.583		
F value	77.574		0.001

Note: Significance level: *p<0.05 and **p<0.01

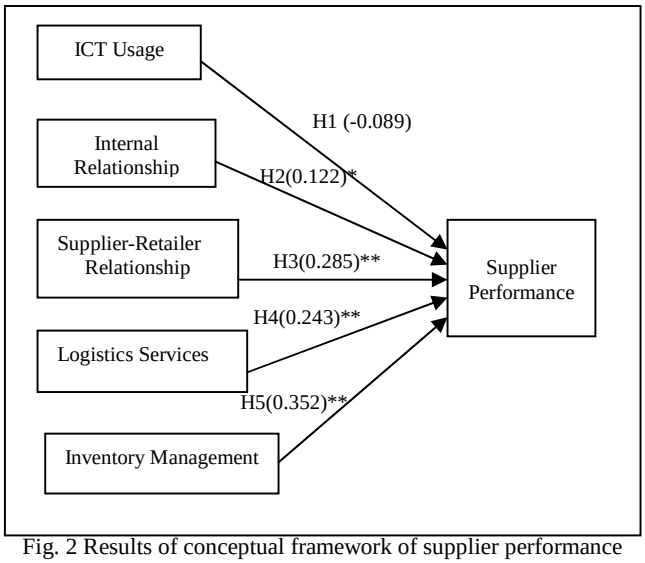


Fig. 2 Results of conceptual framework of supplier performance determinants

TABLE VI
SUMMARY OF HYPOTHESES RESULTS

	Hypotheses	Conclusion
H1	There is a significant positive relationship between ICT usage and supplier performance.	Rejected
H2	There is a significant positive relationship between internal relationship and supplier performance.	Supported
H3	There is a significant positive relationship between supplier-retailer relationship and supplier performance.	Supported
H4	There is a significant positive relationship between logistics services and supplier performance.	Supported
H5	There is a significant positive relationship between inventory management and supplier performance.	Supported

V. Discussion And Practical Implications

The findings from this study suggesting that good inventory management contributes to supplier performance. This means that when convenience store having proper inventory management with accurate inventory records and good planning with regards to inventory requirements, this will make it easier for the suppliers to supply the right quantity and the right quality at the right time of products as required by the convenience store managers.

The results also suggest that supplier-retailer relationships, internal relationship and logistics services determine supplier performance. This means that the relationship between convenience store managers and suppliers will ensure the suppliers get the right information regarding the quantity and timing of orders required by the convenience store managers. Thus, the suppliers are able to deliver good service and were flexible to accommodate the changing demands of the convenience store managers when the decision is synchronized between convenience store managers and suppliers. This is consistent with previous studies of [12] and [20]. Logistics services support the delivery of goods to convenience stores and directly contribute to supplier performance as perceived by convenience store managers.

Literature from previous researchers postulated that information sharing may reduce bullwhip effect of the supply chain management e.g.: [24], [25]. Surprisingly, important determinants in supplier performance such as managing internal relationship, supplier-retailer relationship, logistics services, and inventory management are not handled extensively by the use of technology. The result suggested that convenience store managers did not perceive ICT usage as significant predictor to supplier performance. This shows that the sharing of information between suppliers and convenience store managers is more inclined towards the traditional means of business relationships without much focus on ICT to run the business operations. Ideally, convenience stores should have comprehensive store information system installed in every outlet and linked both to suppliers and the distribution centers as practiced by 7-eleven in Hong Kong [26]. Nevertheless, factors such as trust and alliance building are very important in supply chain information exchange. The retailer may share proprietary information with the supplier which can help the supplier to provide better customer service to the retailer.

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However, information sharing requires confidence that the information will not leak to competitors, or be used as leverage by the supplier against the retailer [26]. Thus, effective cyber laws to regulate online transaction activities and the prevention of data misuse are important issues to be considered in order to enhance ICT adoption by convenience stores and their suppliers.

Government's initiative to establish local distribution centre will not be operating at optimal level without technology to support supply chain activities. Thus, measures to encourage the usage of ICT between convenience store managers and suppliers are important to improve operational procedures and business performance throughout the supply chains.

Although previous literature support that retailer–supplier technology collaborations is vital to the success of the retailer and supplier, nevertheless, the results in this study is consistent with research findings of Tan [27] which revealed that many of the SMEs surveyed have not adopted ICT in their business. It can be inferred by the assumptions that lack of education and technical skills might have contributed to the lower rate of adoption [28]. Lack of security has also been identified as a major barrier despite the cyber laws available to protect the business environment [27]. Retailers are often unwilling to engage in technological collaborations with suppliers as sales and inventory information is considered private information. This is to avoid opportunistic behaviors by suppliers such as sharing out private information with other retailers or suppliers. According to [29], on the other hand asserted that, besides willingness to collaborate with suppliers, technology utilization in supplier-retailer relationships is more beneficial for the retailer when the retailer possesses the intangible resource of technological readiness. From the convenience store manager perspective in this study, ICT usage has little value for inter-organizational collaboration reflecting the action taken by the retailers, as evident in studies by Tan [27] that do not view the importance of ICT usage in businesses.

VI. Conclusion And Future Research

Overall, this study highlights that convenience store managers perceived that inventory management, supplier-retailer relationship, logistics services and internal relationship are important predictors to supplier performance. However, the findings did not support the use of ICT contributes to supplier performance. Based on the findings, it is hoped that the recommendations provided some inputs to be considered in improving business operations of convenience stores in Malaysia. Nevertheless, given the limited sample size and scope, it is recommended for future studies to get a bigger sample size and focus on the underlying factors that contribute to low ICT adoption by convenience stores in Malaysia. Similar studies on other retail formats is also recommended to distinguish whether the findings are different or otherwise.

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References

[1] Price Water House Coopers, "2004/2005 Global Retail & Consumer Study from Beijing to Budapest", 2005.

[2] E. Loke, "Change of image for sundry shops", April 29, 2011, (thestar.com.my).

[3] Performance Management and Delivery Unit (PEMANDU), "*Economic transformation programme: A roadmap for Malaysia*", 2010.

[4] "TUKAR Changing the face of sundry shops", http:// etp. pemandu. gov. my

[5] Center for Economic Vitality, "Convenience Stores Industry Snapshot", Retrieved from http://www.pacificedc.org/Library%20Docs/Convenience%20Stores%20Industry%20Snapshot.pdf

[6] C. Y. Yi, E.W.T. Ngai,. and K-L. Moon, "Supply chain flexibility in an uncertain environment: exploratory findings from five case studies", Supply Chain Management: An International Journal, Vol. 16 Iss: 4, pp. 271-283, 2011

[7] T. M. Simatupang and R. Sridharan,"The collaboration index: a measure for supply chain collaboration", International Journal of Physical Distribution & Logistics Management, Vol. 35 Iss: 1, pp.44 – 62, 2005.

[8] H. LeHong, " Closing the retail CRM and merchandising analytics gap", Retail Quest Answ, 1–3, 2004.

[9] D. Bowersox, D. Closs, and S. Stank, "Ten mega-trends that will revolutionize supply chain logistics", Journal of Business Logistics, Vol. 21 No. 2, pp. 1-16, 2000.

[10] T. M. Simatupang, A. C. Wright, R. Sridharan, "Applying the theory of constraints to supply chain collaboration", Supply Chain Management: An International Journal, Vol. 9 Iss: 1, pp.57 – 70, 2004.

[11] M. Hammer, "The super efficient company", Harvard Business Review, Vol. 79 No. 8, pp. 82-91, 2001.

[12] R.Frankel, T. J. Goldsby, J. M. Whipple, "Grocery Industry Collaboration in the Wake of ECR", International Journal of Logistics Management, The, Vol. 13 Iss: 1, pp.57 – 72, 2002.

[13] Mohamed Zairi, "Best practice in supply chain management: the experience of the retail sector", European Journal of Innovation Management, Vol. 1 Iss: 2, pp.59 – 66, 1998.

[14] F. Wiengarten, B. Fynes, P. Humphreys, R. C. Chavez, A. McKittrick, "Assessing the value creation process of e-business along the supply chain", Supply Chain Management: An International Journal, Vol. 16 Iss: 4, pp.207 – 219, 2011.

[15] U. Juttner and S. Maklan, "Supply chain resilience in the global financial crisis: an empirical study", Supply Chain Management: An International Journal, Vol. 16 Iss: 4, pp.246 – 259, 2011.

[16] V. Sanchez-Rodrigues, A. Potter and M. M. Naim, "The impact of logistics uncertainty on sustainable transport operations", International Journal of Physical Distribution & Logistics Management, Vol. 40 Iss: 1/2, pp.61 – 83, 2010.

[17] Zainah Abdullah, Aznur Hajar Abdullah, Rosidah Musa and Lennora Putit, "The effect of inventory management, internal and external relationships on customer service in the retail industry", Paper presented at SHUSER 2012 IEEE Symposium on Humanities, Science and Engineering 24th - 27th June, 2012, Kuala Lumpur.

[18] J. R., Stock and D. M., Lambert, "*Strategic logistics management*", 4th ed., McGraw-Hill Higher Education, 2001.

[19] C. S. Dabas, B.Sternquist and H. Mahi, "Organized retailing in India: upstream channel structure and management", Journal of Business & Industrial Marketing, Vol. 27 Iss: 3, pp.176 – 195, 2012

[20] M. Tracey, R. W. Fite and M. J. Sutton, "An explanatory model and measurement instrument: A guide to supply chain management research and applications", American Journal of Business, Vol. 19 Iss: 2, pp.53 – 70, 2004.

[21] M. Tracey, "The importance of logistics efficiency to customer service and firm performance", The International Journal of Logistics Management, Vol. 9 No. 2, pp. 65-81, 1998.

[22] U. Sekaran, "Research methods for business : a skill building approach", 4th ed., John Wiley & Sons Inc., 2003.

[23] J. Pallant, "SPSS survival manual: a step by step guide to data analysis using SPSS", 3rd sd., McGraw-Hill companies, 2007.

[24] S.C. Shih, S.H.Y.Hsu, and S. K. Balasubramaniam, "Knowledge sharing-a key role in the downstream supply chain", Information and Management Journal 2570, pp. 1-11, 2012.

[25] M. Tracey, J.S. Lim, and M. A. Vonderembse, "The impact of supply-chain management capabilities on business performance", Supply Chain Management: An International Journal, Vol. 10 Iss: 3, pp.179 – 191, 2005.

[26] P. Y. Chan, X. Shi, and S. M. Yuen, "A framework for core competences of convenience store in a supply chain context: case study of 7-Eleven, Hong Kong", Proceedings of The Eighth International Conference of Decision Sciences Institute, 3 - 6 July 2005, Barcelona, Spain, 2005.

[27] K. S. Tan, S. C. Chong, B. Lin, and U. C. Eze, "Internet-based ICT adoption: evidence from Malaysian SMEs", Industrial Management & Data Systems, Vol. 109 Iss: 2, pp.224 – 244, 2009.

[28] N. Kogilah, N., A. S. Santhapparaj,and U. C. Eze, "An empirical study of website adoptionamong small and medium enterprises in Malaysia", Communications of the International Business Information Management Association (IBIMA), Vol. 2, pp 50-62, 2008.

[29] R. G. Richey Jr., M. Tokman and L. R. Skinner, "Exploring collaborative technology utilization in retailer–supplier performance", Journal of Business Research 61, pp 842–849, 2008.

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