THE ROLE OF CONFLICT RESOLUTION ON SUPPLY CHAIN PERFORMANCE

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Abstract— The study aims to predict conflict resolution in mediating the relationship among supply chain capability, supply chain partnership, and information sharing on supply chain performance. Data were collected by distributing questionnaires to 100 managers of a telecommunication company at Jakarta, Indonesia that were selected purposively. Data were analyzed statistically by using Partial Least Square. The results of this study found that supply chain capability, supply chain partnership, and information sharing, have no significant impact on supply chain performance, but have to be fully mediated by conflict resolution to have a positive and significant impact. These findings imply that managers should pay more attention on conflict resolution in the supply chain context. Originality of this study was performed that conflict resolution needed by supply chain context.
Index Terms— Conflict Resolution, Supply Chain Capability, Supply Chain Partnership, Information Sharing, Supply Chain Performance

1 INTRODUCTION

In a supply chain context, there are many business conflicts emerged between company with its suppliers and distributors. Managing conflicts in a supply chain can be viewed from causes, processes, and results [1]. The relationship in a supply chain occurs in two sides, both supply and demand side as a partnership between organizations [2]. It should be understood that process approach is not sufficient in managing a supply chain, but partnership approach is needed as main basis in managing a supply chain [3]. Business disputes between partners in a supply chain need to be immediately settled jointly in order to achieve best solutions to improve supply chain performance [4]. Supply chain management practices are increasingly widespread from relationship between business functions within a company into inter-organizational coverage such as partnership among organizations [5]. The flow of products, money, and information plays an important role in supply chain management. Each step affects the entire supply chain business process. Companies involved in supply chain are grabbing supply chain effectiveness [6]. Building and managing a supply chain partnership need a supply chain capability. Supply chain capability related to deliver the best value to customers [7]. Supply chain capability consists of supply-side capabilities and demand-side capabilities [8], agility, adaptability, and alignment [9], also outside-in, inside-out, and spanning [10].

Information sharing is very necessary to be distributed to all partners who are bound in a supply chain [11]. Since a supply chain is a special form of network consisting of multiple organizations that are combined and dynamically adjusted with the tasks to be performed to achieve the overall network objectives [12].Supply chain performance emphasizes inter-functional and interfirm nature of the supply chain [13]. Many companies have a large number of performances' measures but fail to realize that performance measurements need to be addressed using relevant measurements. Because the instruments that used to measure performance can influence strategic decisions [14]. Based on previous studies mentioned above, we want to explore whether conflict resolution mediates or not towards the relationships between supply chain capability, supply chain partnership, and information sharing on supply chain performance.

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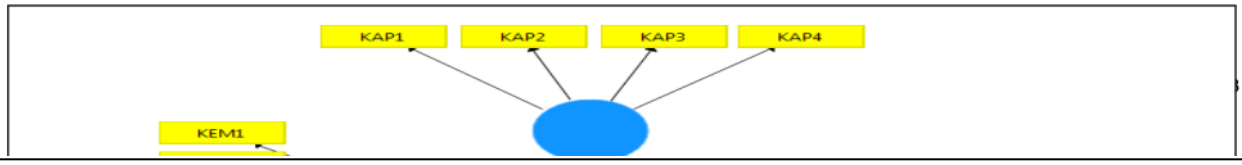
2 LITERATURE REVIEW

Supply chain capability consists of outside-in capability, inside-out capability, and spanning capability. Outside-in capability refers to the ability to compete in the market through developing good relationships with partners. Inside-out capability refers to the ability to take advantage of opportunities in the environment. While spanning capability refers to the ability to support the needs of partners who can be met from the business [10]. Supply chain capability can be detailed into agility, adaptability, dan alignment [9]. Supply chain capability can be divided into supply-side capabilities and demand-side capabilities [8]. Supply chain capability consists of speed, low cost, differentiated products or services, and the best value to customers [7]. Supply chain partnership is ability to manage its partners in the supply chain in order to have high dependency, conflict resolution, holding the trust given, fulfilling the requested commitment, adjusting the organization to be compatible, and having the same vision of top management [15]. Partnerships are internal integration, integration with suppliers, and integration with customers [16]. Partnership with supplier is designated to improve productivity, quality and flexibility. While partnership with distributor is addressed to increase customer satisfaction and delivery [17]. Partnership is demonstrated by cooperation, commitment,

trust, and conflict resolution [18]. Supply chain partnership is a strategic partnership with supplier that can improve organizational operations and partnership with distributor that add value to customer service [19]. Information sharing is a process of facilitating partners to receive and disseminate important information in a timely, relevant, and accurate manner so that recipients of such information can undertake planning, execution and control in managing the supply chain [11]. Information sharing means to what extent important and qualified information can be shared with partners, consisting of accuracy, timeliness, adequacy and credibility [4]. Information sharing is required an information control, information integration, and information centralization. Information sharing is the degree to which critical information can be quickly shared across to all related organizations [20]. Conflict resolution is an important part of organizational and interorganizational life. The existence of diversity in the workplace, globalization, and the development of alliances between organizations, requires different ways of dealing with conflict [21]. Conflict resolution is managed by understanding each other's problems and finding solutions agreed by the parties. The existence of several different views between members of the network allows occurrence of conflict among members of the network, because conflict can arise from different perspectives [22]. Conflict resolution can be settled by integrating a company with its supplier and distributor, building communications, and sustainable partnership. Conflict resolution can be done through the use of information technology in a supply chain measured, by the degree of conflict resolution in a timely manner, and innovative solutions would be obtained [23]. Supply chain performance related with partnership with criteria of information sharing rate, cost savings between buyer and seller, mutual cooperation towards quality improvement, supplier involvement level, and mutually beneficial coaching in the effort of problem solving [7]. Supply chain performance measurements consist of demand-driven performance measures such as customer service and quality, as well as supply-focused performance measures such as cost and productivity [8]. Supply chain performance emphasize interfunctional and interfirm nature of the supply chain. Companies need to work together effectively, including coordinated and integrated organizational functions [13]. There are 3 types of supply chain performance namely; informational performance measured by integrating suppliers and customers, building communications, and sustaining constructive partnership networks; operational performance measured from cost, quality, delivery, flexibility, and time; and customer service performance as measured by the speed of responding to customers [23].Based on previous researches [10] and [12], can be proposed hypotheses that Supply Chain Capability is positively related to Supply Chain Performance (H1a) and Conflict Resolution mediates the relationship between Supply Chain Capabilities and Supply Chain Performance (H1b). Based on previous researches [17], [18], [19], and [16], can be proposed hypotheses that Supply Chain Partnership is positively related to Supply Chain Performance (H2a) and Conflict Resolution mediates the relationship between Supply Chain Partnership and Supply Chain Performance (H2b). Based on previous researches [11], [4], and [24], can be proposed hypotheses that Information Sharing is positively related to Supply Chain Performance (H3a) and Conflict Resolution mediates the relationship between Information Sharing and Supply Chain Performance (H3b). Based on previous researches [4], [22] and [25], can be proposed a hypothesis that Conflict Resolution is positively related to Supply Chain Performance (H4).

3 METHODS

The population in this study was managers in a telecommunication company at Jakarta, Indonesia. Samples consist of 100 managers that were selected purposively according to the purpose of this research that managers have relationship with its supplier or distributor. All variables of this study are latent and being measured through indicators by using the Likert scale, 1 is strongly disagree and 5 is strongly agree. Supply Chain Capability (SC Capability) is the company's ability to develop a supply chain and it is measured by 4 indicators referenced from [10], which are strategy development, procurement development; customer service development, and information dissemination. Supply Chain Partnership (SC Partnership) is the company's ability to manage its partners in the supply chain and it is measured by 6 indicators referenced from [15] are dependence; problem solving; trust; commitment; compatible organizational structure; and the same vision of management. Information Sharing is the process of receiving and disseminating information and it is measured by 5 indicators referred to [4] and [11] are important information related to supply chain process; supply chain request; supply chain planning, supply chain implementation, and supply chain control. Conflict Resolution is solving conflicts collectively to achieve mutually beneficial results all parties and it is measured by 4 indicators referred to [22] are various proposals made by parties, integrating various proposals, looking for solutions that benefit all parties, and set creative solutions approved by all parties. Supply Chain Performance (SC Performance) is a partnership-based performance and it is measured by 5 indicators referred to [7] are the degree of involvement, level of conflict resolution, level of information sharing, level of cost savings, and level of quality improved. Based on all hypotheses mentioned above, then it can be developed an empirical research model using smartPLS and produces Figure 1, as follows.



Descriptive statistical analysis was conducted to explain characteristics of respondents (age, educational background, organizational position, and length of work). Inductive statistical analysis was performed by using Variance-Based Structural Equation Modelling (VB-SEM) using SmartPLS. Path analysis that employs PLS consists of 3 relationships. Outer-model that specifies the relationship between latent variable with its indicator (measurement model). Inner-model that specifies relationship between latent variable (structural model). And weight relation in assessing latent variables to be estimated [26].

Validity refers to the extent to which the precision and accuracy of a measuring instrument can measure a construct. Construct validity calculations are assessed by convergent validity and discriminant validity. Reliability refers to internal consistency of indicators of a construct, showing the degree to which, each indicator indicates a common latent factor. Reliability calculations are assessed by cronbach's alpha and composite reliability [26]. If all variables have been declared valid and reliable, and the model has a goodness of fit that qualifies predictive relevance, then further all hypothesis can be tested [26]. Goodness of Fit (GoF) can be calculated from Q-square as Predictive Relevance. Using R-square, it can be calculated a predictive relevance of this empirical research model to evaluate how fit the observations were generated. By using the Stone-Geisser test, Q-square is performed to generate predictive relevance to find out the relative influence of structural model on observation measurement for endogenous latent variables. Q-square = $1 - (1 - R1^2)(1 - R2^2) \ldots (1 - Rn^2)$. If the value of Q-square > 0, indicates that model has predictive relevance. GoF values fall into large categories when their values are above 0.36 [26].

4 RESULT AND DISCUSSION

Based on data analysis, it is found that the company have cooperative relationship with supplier and distributor more than 2 years. Managers were classified by sex, consisted of men (62%) and women (38%). Age is ranged between 20-40 years (61%) and 41-60 years (39%). Educational background is recorded as Master Degree (63%) and Bachelor Degree (37%). Length of work in the company is categorized as more 3 years (51%) and less than 3 years (49%).Validity can be seen from convergent value of outer loading that all indicators valid if has value > 0.70 [26] and if less than 0.7 then indicator can be removed from the empirical research model and re-calculated. Based on the validity calculation, Supply Chain Partnership (SC Partnership) were discarded into 3 indicators, which are dependence, problem solving, and same vision. Supply Chain Performance (SC Performance) was discarded into 1 indicator that is improved quality. Based on revised model then the PLS Algorithm is run and found that all indicators have outer loading > 0.7. Reliability can be seen from each variable that has cronbach's alpha > 0.7 and composite reliability > 0.8 [26]. In Table 1, we can see the values of Cronbach's Alpha and Composite Reliability for all variables that were declared reliable.

Table 1. Cronbach's Alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE)

Variables	CA	CR	AVE
Capability SC	0.794	0.865	0.617
Conflict Resolution	0.793	0.864	0.615
Information Sharing	0.886	0.918	0.693
Partnership SC	0.854	0.911	0.774
Performance SC	0.787	0.863	0.611

R-square is valued as 0.791 on Supply Chain Performance, it means 79.1% can be explained by variables under study, while the remaining's 21.9% explained by other variables that are not existed in this research model. Also, a R-square 0.763

on Conflict Resolution. Q-square is performed to generate a predictive relevance by using a Stone-Geisser test to find out relative influence of structural model on observation measurement for endogenous latent variables. Q2 = 1 – (1 – 0.791) (1 – 0.763) = 0.950467. Since the value of Q2 is positive and > 0.36 it indicates that the observed value has been well reconstructed and model has a strong predictive relevance [26]. Later, it can be continued to test all hypotheses by performing PLS Bootstrapping from the smartPLS by using significance level 5%, it is obtained the value of acceptance area Ho +/- 1.96. If value of T calculated is greater than +/- 1.96 then Ho is rejected or alternative hypothesis is accepted. Hypothesis testing can also be seen from the output of path coefficients by looking at T Statistics and P Values.

SC Capability has no positive effect on SC Performance (H1a not supported) (T = 1.836 ; p = 0.067); SC Partnership has no positive effect on SC Performance (H2a not supported) (T = 1.031 ; p = 0.303); Information sharing has no positive effect on SC Performance (H3a not supported) (T = 1.677 ; p = 0.094); Only Conflict Resolution has positive effect and significant on SC Performance (H4a) (T = 3.650 ; p = 0,000). Conflict Resolution mediates the relationship between SC Partnership and SC Performance (H2b supported) (T = 2.359; p = 0.019). Conflict Resolution mediates the relationship between Information Sharing and SC Performance (H3b supported) (T = 2.816; p = 0.005). But Conflict Resolution does not mediate SC Capability and SC Performance (H1b not supported). Conflict Resolution has a full mediator for SC Partnership and Information Sharing to SC Performance.

5. CONCLUSIONS

SC Capability has no positive effect on SC Performance (H1a not supported) and has not be mediated by Conflict Resolution (H1b not supported). SC Partnership has no positive effect on SC Performance (H2a not supported) but has to be fully mediated by Conflict Resolution (H2b supported). Information Sharing has no positive effect on SC Performance (H3a not supported) but has to be fully mediated by Conflict Resolution (H3b supported). And Conflict Resolution has a positive and significant effect on SC Performance (H4 supported). Conflict Resolution fully mediates the relationship between SC Partnership and Information Sharing on SC Performance.

Theoretical implication based on these results indicates that conflict resolution affects supply chain performance. Conflict resolution has positive and significant impact on supply chain performance. Conflict Resolution mediates the relationship between SC Partnership and Information Sharing on SC Performance. This study supports previous researches were conducted by [4], [22], and [25]. Practical implications of the results recommend that managers can improve supply chain performance by making a good conflict resolution. Conflicts among organizations need to be understood more because they have different characteristics if being compared with conflicts within the organization. Limitation of this study is only applied in 1 company and 1 sector (telecommunication), and uses relatively small samples (100). For future research, it is suggested to be performed with large sample and explored with both quantitative and qualitative method (mix method approach).

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REFERENCES

[1] S. Assery, H. K. Tjahjono, A. Sobirin, and A. Hartono, "Managing Conflict in the Supply Chain (Case Study: Telecommunication Company in Indonesia)," *J. Eng. Appl. Sci.*, vol. 12, no. 21, 2017.

[2] C. R. Carter and D. S. Rogers, "A framework of sustainable supply chain management: moving toward new theory," *Int. J. Phys. Distrib. Logist. Manag.*, vol. 38, no. 5, pp. 360–387, 2008.

[3] C. Saleh, S. Assery, Sabihaini, and S. Suryaningsum, "Supply chain management in service companies (Case study in Indonesia)," *J. Eng. Appl. Sci.*, vol. 12, no. 15, 2017.

[4] L. in S. Dudley and J. Sutton, "Rethinking concepts, concerns, and collaboration in interorganizational relationships," *Int. J. Organ. Theory Behav.*, vol. 3, no. 3/4, pp. 275–282, 2000.

[5] L. C. Giunipero, R. E. Hooker, S. JOSEPH-MATTHEWS, T. E. Yoon, and S. Brudvig, "A decade of SCM literature: past, present and future implications," *J. Supply Chain Manag.*, vol. 44, no. 4, pp. 66–86, 2008.

[6] C. A. Soosay, P. W. Hyland, and M. Ferrer, "Supply chain collaboration: capabilities for continuous innovation," *Supply Chain Manag. An Int. J.*, vol. 13, no. 2, pp. 160–169, 2008.

[7] A. Gunasekaran, C. Patel, and E. Tirtiroglu, "Performance measures and metrics in a supply chain environment," *Int. J. Oper. Prod. Manag.*, vol. 21, no. 1/2, pp. 71–87, 2001.

[8] E. A. Morach, "Supply chain capabilities, strategies, and performance," *Transp. J.*, vol. 41, no. 1, pp. 37–54, 2001.

[9] H. L. Lee, "The triple-A supply chain," *Harv. Bus. Rev.*, vol. 82, no. 10, pp. 102–112, 2004.

[10] M. Tracey, J. Lim, and M. A. Vonderembse, "The impact of supply-chain management capabilities on business performance," *Supply Chain Manag. An Int. J.*, vol. 10, no. 3, pp. 179–191, 2005.

[11] T. M. Simatupang and R. Sridharan, "The collaborative supply chain: a scheme for information sharing and incentive alignment," *Int. J. Logist. Manag.*, vol. 13, no. 1, pp. 15–30, 2002.

[12] G. T. M. Hult, D. J. Ketchen Jr., G. L. Adams, and J. A. Mena, "Supply Chain Orientation and Balanced Scorecard Performance," *J. Manag. Issues*, vol. 20, no. 4, pp. 526–544, 2008.

[13] P. C. Brewer and T. W. Speh, "Using the balanced scorecard to measure supply chain performance," *J. Bus. Logist.*, vol. 21, no. 1, p. 75, 2000.

[14] a Gunasekaran, C. Patel, and R. E. McGaughey, "A framework for supply chain performance measurement," *Int. J. Prod. Econ.*, vol. 87, no. 3, pp. 333–347, Feb. 2004.

[15] J. T. Mentzer, S. Min, and Z. G. Zacharia, "The nature

of interfirm partnering in supply chain management," *J. Retail.*, vol. 76, no. 4, pp. 549–568, 2000.
[16] B. B. Flynn, B. Huo, and X. Zhao, "The impact of supply chain integration on performance: A contingency and configuration approach," *J. Oper. Manag.*, vol. 28, no. 1, pp. 58–71, 2010.
[17] S. Zailani and P. Rajagopal, "Supply chain integration and performance: US versus East Asian companies," *Supply Chain Manag. An Int. J.*, vol. 10, no. 5, pp. 379–393, 2005.
[18] W. C. Benton and M. Maloni, "The influence of power driven buyer/seller relationships on supply chain satisfaction," *J. Oper. Manag.*, vol. 23, no. 1, pp. 1–22, 2005.
[19] S. Li, B. Ragu-Nathan, T. S. Ragu-Nathan, and S. Subba Rao, "The impact of supply chain management practices on competitive advantage and organizational performance," *Omega*, vol. 34, no. 2. pp. 107–124, 2006.
[20] H. L. Lee, K. C. So, and C. S. Tang, "The Value of Information Sharing in a Two-Level Supply Chain," *Manage. Sci.*, vol. 46, no. 5, pp. 626–643, 2000.
[21] K. W. Thomas, "Conflict and conflict management: Reflections and update," *J. Organ. Behav.*, vol. 13, no. 3, pp. 265–274, 1992.
[22] K. D. Bradford, A. Stringfellow, and B. A. Weitz, "Managing conflict to improve the effectiveness of retail networks," *J. Retail.*, vol. 80, no. 3, pp. 181–195, 2004.
[23] J. Sik Jeong and P. Hong, "Customer orientation and performance outcomes in supply chain management," *J. Enterp. Inf. Manag.*, vol. 20, no. 5, pp. 578–594, 2007.
[24] Z. Yu, H. Yan, and T. E. C. E. Cheng, "Benefits of information sharing with supply chain partnerships," *Ind. Manag. Data Syst.*, vol. 101, no. 3, pp. 114–121, 2001.
[25] K. Beardsley and N. Lo, "Third-Party Conflict Management and the Willingness to Make Concessions," *J. Conflict Resolut.*, vol. 58, no. 2, pp. 363–392, 2014.
[26] C. M. Ringle, S. Wende, and A. Will, "SmartPLS 3.0," *Http://www.smartpls.de*, 2015.

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