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The Influence of Resource Complementary, Technology Competence and Supply Chain Risk Criteria on Supply Chain Collaboration

(Case Study of Export Import Activities in Indonesia)

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ABSTRACT

The instability and failure of implementing supply chain collaboration in all industries to date remain quite high. The selection of partners is one of the many factors determining the success of the collaboration, which is very limited in the research conducted. So that the influence of partner selection criteria on the success of this collaboration is the background of this research. The notion of work-related motivation and consideration of partners is still a parameter that is often used in previous research. Technological advances and the current business environment conditions that cause supply chain collaboration to be required to process information sharing and share possible risks that occur, the criteria for partner technology competence and partner supply chain risks become additional criteria that determine the success of the collaboration. In addition to examining the dominant partner criteria to improve company performance, this study will also examine the contribution of supply chain collaboration to company performance through collaborative benefits. Descriptive analysis, measurement model, and structural model using Structural Equation Model (SEM) with a scale of 6 Likert used in quantitative research on 151 companies providing export and import services in Indonesia.

Keywords: *Resource Complementary, Technology Competence, Supply Chain Risk*

1. Introduction

Environmental conditions that are filled with rapid changes have an impact on changes in customer tastes, market demand, and the level of competition that industry players cannot avoid (Valentina et al., 2016). Competitive advantage in order to develop both internally and externally can be done by everyone (Geykens et al., 2006). However, the company's consideration of choosing an external growth strategy is constrained by the limited resources and capabilities it has (Das and Tang, 2008) as well as through collaboration (Hoffmann and Schaper-Rinkel, 2001, p.132). A company's competitive advantage can be created through collaboration (Isoraite, 2009), although the risk of failure is quite large (Holmberg and Cummings, 2009). This leads to a decrease in cost efficiency and effectiveness of logistics services due to instability and failure of collaboration (Das and Teng 2000, Emberson and Storey, 2006; Holmberg and Cummings, 2009; Wittmann, 2007).

Although a number of literature have conducted research on the causes of collaboration failure (Hyder and Ghauri, 2000; Lambe, Spekman and Hunt, 2002), but research is still very limited that is able to answer questions with whom companies collaborate or how the partner selection process is. However, the question of why and how companies choose specific partners for supply chain collaboration has received less attention (Charvet, 2008). There were 850 studies of strategic collaborations and alliances from 1990 to 2012, of which only four percent studied partner selection (Gomes et al., 2014).

Partner selection criteria are believed to be one of the critical success factors for collaboration (Beckman, Haunschild, and Phillips, 2004; Wuyts and Geyskens, 2005). Managing supply chain collaboration relationships that require cross-functional and cross-business business processes is strongly influenced by choosing the right partnership (Rai et al., 2006; Sanders, 2007; Charvet, 2008). The success of the collaboration is strongly influenced by partner selection (Kale and Singh, 2009). Managing relationships in supply chain collaboration requires cross-sectoral business processes and streamlining between companies which is largely determined by the selection of partnerships (Leuschner et al., 2013; Mackelprang et al, 2014).

Complementary partner resources as the first criterion are characterized by the partner's ability to complement the resource requirements and capabilities (Shah and Swaminathan, 2008; Das and He, 2006). Complementary resources are an important element in partner selection as well as an assessment of the attractiveness of potential partners that affect the extent of organizational orientation, and capabilities including activity integration (Ohmae, 1989; Spekman and Sawlancy, 1990). When partners have complementary resources and capabilities, coordination between partners will be easier (Achrol dan Stern, 1988; Harisson et al., 2001, Larson dan Finkelstein, 1999; Moorman dan Slotergraaf, 1999; Murray dan Siehl, 1989).

Because this research also focuses on collaboration that occurs in supply chain activities where information and risk sharing occurs, technological competence and supply chain risk in partnering become a determining factor for successful collaboration (Simatupang and Sridharan, 2005; Sheu et al., 2006).). Therefore, in this study, criteria were developed for new partners, namely technology competency partners which are defined as resources and capabilities in utilizing information and communication technology through technology adoption and appropriation (Sander and Premus, 2005; Tippi and Sohi, 2003). While the second criterion is supply chain risk partners, namely the size and frequency of disturbances in the flow and distribution of goods and information between partners in terms of demand, supply side, regulation as well as law and infrastructure. (Juttner, 2005, McKinnon, 2006).

2. Literature Review

2.1 Partner Selection

In the context of collaboration, several previous studies have confirmed that partner selection is an important variable in the formation and operational cooperation (Geringer, 1988, 1991; Glaister, 1996; Arino and de la Torre, 1998). The partnership selection process is also considered the most important step in creating a successful partnership (Chen & Tseng, 2005; Elmuti and Kathawala, 2001). In addition, partner selection is considered a determining factor in influencing collaboration performance (Harrigan, 1988; Killing, 1983; Parkhe, 1991; Mohr and Spekman, 1994; Park and Ungson, 1997), as it affects the availability of collaboration skills, resources, and capabilities.

A more comprehensive view should be considered by companies in partner selection which focuses more on determining a set of partner selection criteria adapted to the context (Emden et al., 2006; Maryam and Dominique, 2006; Lin et al., 2008). The importance of the successful selection of collaboration partners is important in a dynamic and complex market so adaptability and reducing uncertainty in operations are the driving force in choosing the right partner. The process of adjusting knowledge related to resources and capabilities between companies also occurs in partner selection. Partner selection emerges as a typical decision-making process in the formation of collaborations. This situation ultimately requires the process of identifying and grouping criteria for partner selection according to the existing context and the relationship between these criteria for the success of the Cooperation (Brouther and Werner, 2008).

2.2 *Partner Complementary*

Complementary partners are partner criteria that are closely related to task-related criteria related to complementary or complementary strategic resources and company skills (Luo, 1998; Das and He, 2006), namely a collection of criteria for strategic resources such as physical assets, financial, marketing and

distribution networks as well as the managerial and operational skills needed to have a competitive advantage. Task-related criteria emphasizing the resources and capabilities that a company must possess in order to compete effectively are based on the theory of the resource-based view. Complementary partners as the first criterion are characterized by the ability of partners to complement the needs of resources and capabilities (Shah and Swaminathan, 2008; Das and He, 2006). The greater the ability to complement each other between partners, the greater the collaboration will experience success (Kale and Singh, 2009). Based on a literature review of the criteria for selecting partners for cooperation from 2000 to 2015, the criteria for complementary partners are divided into complementary resources and logistical operational capabilities (Bowersox and Cloos, 2001; Rothaermel and Deeds, 2006).

2.3 *Partner Technology Competence*

Several studies have focused on explaining failures in supply chain collaboration using aspects of communication and information technology (Cruijssen et al., 2007). As one of the enablers in implementing supply chain collaboration, information, and communication technology is one of the criteria needed in choosing the right collaboration partner (Esper and Williams, 2003). Supply chain collaboration is defined as a partnership characterized by a process of sharing relevant, accurate, complete, and confidential information in which companies share various ideas, plans, and procedures with supply chain partners in a timely manner (Angele and Nath, 2001; Elofson and Robinsom, 2007). Therefore, to ensure supply chain collaboration through the information sharing process can run smoothly, the partner criteria are known as technology competency partners. This criterion is defined as the ability to utilize the most advanced information and communication technology and make the most of the supply chain information system (Mc Afee, 2006). This study adopts the view of ICT adoption and ICT appropriation (Tippins and Sohi, 2003) as components that make up the criteria for partner technology competence.

2.4 *Partner Supply Chain Risk*

Supply chain collaboration is a risk-sharing process so the risk of supply chain collaboration partners becomes very important (Simatupang and Sridharan, 2005; Shue, 2006). Changes and management initiatives in the supply chain have great potential to streamline and streamline operations in a stable environment. However, concurrent supply chain design also increases the risk of supply chain fragility and vulnerability (Craighead et al., 2007; Wagner and Bode 2006; Zsidisin et al., 2005a). The risk criteria possessed by potential partners are a determining factor in the selection of supply chain cooperation partners (Cumming and Holmberg, 2012). Referring to this opinion, partner supply chain risk is defined as the level of possibility of disturbances and obstacles owned by partners and affecting the flow of goods and information, causing supply chain operational risk (Wagner and Bode, 2008). The supply chain disruption category is labeled as “source of supply chain risk”. In this study, the sources of supply chain risk (Miller, 1992) are divided into four indicators, namely demand side risk, supply-side risk, regulation, and law and infrastructure.

2.5 *Supply Chain Collaboration*

In the era of coopetition, a company's competitive advantage does not only depend on internal capabilities and resources, but also on close cooperation and relationships with solid external organizations (Claycomb and Frankwick, 2004; Kwon and Suh, 2004). This enables supply chain partners to streamline their processes and eliminate waste by customizing their operations and improving communication (Simatupang and Sridharan, 2005; Cao et al., 2010). Companies are also looking for opportunities beyond organizational boundaries to be able to collaborate with partners in the supply chain to ensure supply chain efficiency and responsiveness so that they can leverage the resources and knowledge of their suppliers and customers (Cao and Zhang, 2011). Effective supply chain management is very important as competitiveness in the business world, where competition in the industry of moving goods is no longer between organizations and companies but occurs through supply chain activities. (Burgess et al., 2006).

There have been many studies conducted since 1995 but the conceptual collaboration supply chain model of Cao and Zhang (2011) which was developed from the collaboration model of Minth et al., 2005 has not

been able to explain the effect of collaboration on company performance through collaborative excellence. Supply chain collaboration is a cooperation between companies in forming long-term relationships in planning and implementing supply chain goals in order to create a competitive advantage and achieve company performance through the exchange of information, resources, and also the risks of the customer satisfaction process. (Sheu et al., 2006; Simatupang and Sridharan, 2005; Whipple and Russell, 2007). The components of this supply chain collaboration are information sharing, resource sharing, decision synchronization, and collaborative communication.

2.6 *Relationship between Partner Selection Criteria and Supply Chain Collaboration*

This study examines the effect of selection criteria for supply chain collaboration partners developed by Kale and Singh (2009) and Cao and Zhang (2011). The concept of Kale and Singh (2009) is able to explain collaboration as a competitive and growth strategy for companies. This research model consists of three latent variables of partner selection criteria and three supply chain collaboration latent variables that will answer six research questions. The selection of these partners will be determined by technology competency partners, supply chain risk partners, and complementary resource partners who will collaborate on the supply chain. This conceptual model of supply chain collaboration (Cao and Zhang, 2011) is able to explain the components of the supply chain collaboration process that affect company performance either directly or indirectly through collaborative benefits (Dyer, 2000). This collaborative advantage comes from relational rent (Lavie, 2006) which is assessed in the form of process efficiency, flexibility in offering products and services, quality, and innovation. The complete relationship between variables in the research model is depicted in Figure 1.

The complexity of collaboration between companies requires sophisticated and highly developed technological competencies to ensure smooth coordination and information-sharing processes in the supply chain (Vakharia, 2002). Logistics service providers who work together through information sharing can form collaborative advantages (Bowersox et al., 2003; Golicic et al., 2003). Through the use of sophisticated information technology infrastructure, technology will recognize and bridge the gaps in several information systems and make companies better equipped to collaborate at various levels of information systems (Frohlich, 2002; Wu et al., 2006). If a company that has a collaborative information system works with partners who have the ability to adapt and utilize information and communication technology, then the company is able to take advantage of the latest technology from information systems to regulate the formation and development of further relationships (Ahuja, 2000; McAfee, 2006). In addition to technically being a collaboration technology (enabler), technology can also reduce transaction costs and transaction risk, thus supporting successful collaboration in the long term (Esper and Williams 2003). Regarding the above arguments, we propose:

H1: Technology competence will have a positive relationship to Supply chain collaboration.

The competition that occurs between supply chains (Caputo et al., 2005; Sadler and Gough, 2005) currently makes logistics service providers understand the sources of uncertainty, including how to reduce the level of uncertainty in the supply chain network. At the same time, this source of uncertainty is getting more complex due to the increasingly complex supply chain network (Harland, 2003). Supply chain design changes and supply chain management initiatives have great potential to make operations leaner and more efficient in a stable environment, but these design changes can also simultaneously increase the disruption to supply chain vulnerabilities and vulnerabilities (Craighead et al. 2007; Wagner and Bode 2006); Zsidisin et al., 2005a). The greater the source of supply chain risk which is partly influenced by external and internal supply chain networks, the influence of supply chain risk owned by cooperation partners will greatly affect the failure of supply chain cooperation (Katz, 2004). From the arguments above, it can be concluded that the degree and frequency of disruption to activities along the supply chain will increase the operational risk of the partner's supply chain and ultimately lead to a high probability of failure of supply chain collaboration. So, by referring to the perspective of supply chain risk partners as a criterion in choosing the partners above, the following hypothesis is proposed:

H2: Supply chain risk will have a negative relationship to Supply chain collaboration.

The most prominent motivation for collaboration in a complex external environment is accessing, acquiring, and combining complementary resources (Hagedoorn 1993). Resource complementarity as an important partner selection factor (Shah and Swaminahan, 2008) occurs when a firm possesses unique resources (skills, capabilities or assets) that are needed and benefit other organizations (Pferffer and Slancik, 1978; Thomas and Perry, 2006). . The right supply chain collaboration partners will also affect the development capabilities and allocation of resources that can strengthen the company's ability to achieve strategic goals (Chen et al, 2010). Since supply chain collaboration is a combination of resource-sharing processes to increase the economies of scale and economic scope of each firm (Cruijssen, 2006c), the resource-based view explains that a firm's collaborative advantage depends not only on available resources but also on the ability to integrate these unique resources and harness the full potential of the operational or logistical capabilities that occur during collaboration (Mahoney, 2005). The greater the complementary ability between partners (complementarity), the greater the likelihood of successful collaboration (Kale and Singh, 2009). Regarding the above arguments, we propose:

H3: Resource complementary will have a positive relationship to Supply chain collaboration.

According to the collaborative paradigm, a supply chain consists of a sequence or network of interdependent relationships that are extended through collaboration (Chen and Paulraj, 2004). Collaborative benefits derive from relational rents which result in common benefits for bilateral rent-seeking behavior (Lavie, 2006). Collaborative excellence is a strategic advantage obtained through supply chain partnerships which is a synergistic result of collaborative activities (Jap, 2001; Vangen and Huxham, 2003). The form of sharing ideas that are relevant, accurate, complete, confidential and timely with supply chain partners is evidence of information sharing during collaboration (Sheu at al., 2006). Synchronized decision-making is also a key element in supply chain collaboration and how to build and maintain partnerships with each other (Harland et al., 2004). The process of resource sharing that enhances capabilities and investment assets (Harland et al., 2004) is a positive indication of a collaborative supply chain process. Open, continuous, balanced, two-way communication and multi-level communication indicate a close relationship between companies (Goffin et al., 2006). So that referring to the supply chain collaboration perspective on the collaborative advantages above, the following hypothesis is proposed:

H4: Supply chain collaboration will have a positive relationship to Collaborative advantage.

According to the relational view, the collaborative advantage is an inter-organizational competitive advantage that comes from relational leases that ultimately helps improve firm performance through the combination, exchange, and co-development of extraordinary resources (Dyer and Singh, 1998). The targeted target of supply chain cooperation is for supply chain partners to increase profits through cooperation (Simatupang and Sridharan, 2005). Previous research has also supported the ability of partnerships to save costs and reduce duplication of effort by companies involved in collaboration (Lambert et al., 2004). Collaborative relationships can also help firms reduce transaction costs, and improve earnings performance and competitive advantage over time (Mentzer et al., 2000). Moreover, the collaborative advantage perspective allows supply chain partners to view supply chain collaboration as a positive summation game in which partners can derive more relational advantages from their own competitive advantage (Cao and Zhang, 2013). By understanding the arguments against the collaborative profit indicator, we propose:

H5: Collaborative advantage will have a positive relationship with Firm performance

Internal strategic resources that can lead to competitive advantage and improve company performance can be assessed as supply chain collaboration (Barney, 2012). By possessing scarce resources and assets and possessing superior core competencies and capabilities, companies can achieve market advantage and gain a sustainable competitive advantage (Knudsen 2003). Collaboration is a collaborative strategy of supply chain partners with the aim of serving customers together through integrated solutions to reduce costs and increase revenue (Simatupang et al., 2004). Companies can develop unique and superior capabilities through collaboration with companies in the supply chain. Supply chain collaboration as a strategic resource can result in sustainable competitive advantage and superior company performance (Chen et al., 2009b; Mesquita et al., 2008). Many researchers argue that customers, partners, and suppliers seek

collaborative relationships with one another as a way to improve performance (Duffy and Fearne, 2004; Sheu et al., 2006). Partnerships can increase profitability, reduce purchasing costs, and increase technical cooperation (Ailawadi et al, 1999). The higher the level of interdependence (higher level of collaboration) in a relationship, the better the company's performance (Duffy and Fearne, 2004). We propose:

H6: Supply chain collaboration will have a positive relationship with Firm performance

3. Research Methodology

3.1 Unit Analysis, Data Collection, and Procedure

Literature study and interviews as qualitative methods were used in the early stages of this research to prepare questionnaires as well as analyze and write research results. Structural Equation Model as a quantitative method is used at a later stage to test the validity and reliability of the indicators used. The Structural Equation Model is able to measure the strength of the correlation and causal relationship between latent variables and explain the relationship between latent variables in the research model (Hair et al., 2006). The second interview in the final stage is intended to discuss the results of quantitative analysis. Logistics service providers such as transportation, warehousing, forwarding and container depots that serve export and import activities in Indonesia are used as the unit of analysis in this study.

1.1. 3.2 Structural Equation Model

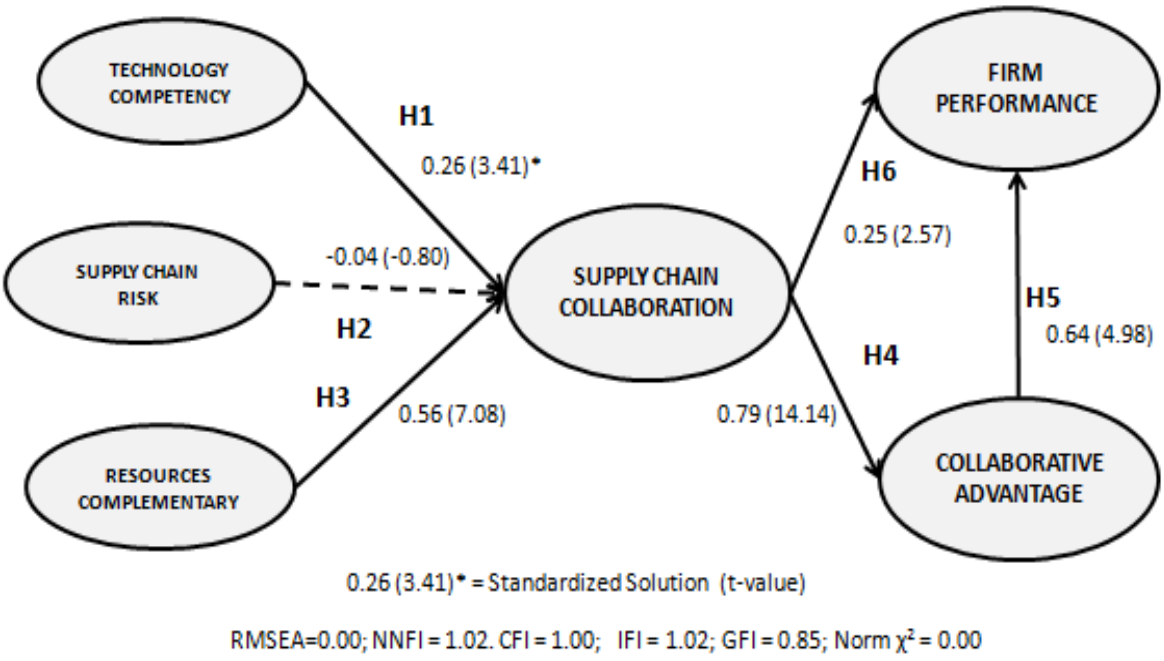

Figure 1. Research Model with Testing Result

3.3 Tables

Table 1. Mean, Standard Deviation and Correlation of Research Variables

	Mean	SD	Resource Complementary	Technology Competency	Supply Chain Risk	Supply Chain Collaboration	Collaborative Advantage	Firm Performance
Resource Complementary	4.46	0.95	1					
Technology Competency	3.86	0.89	0.618**	1				
Supply Chain Risk	2.98	0.94	-0.036	-0.133	1			
Supply Chain Collaboration	4.39	1.00	0.669**	0.609**	-0.030	1		
Collaborative Advantage	4.62	1.00	0.577**	0.444**	0.091	0.786**	1	
Firm Performance	4.36	0.84	0.521**	0.408**	-0.153	0.581**	0.573**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2. Research Hypothesis Testing Result

Hypothesis	t-value	Coeff.	Remarks	Summary
H1: Technology Competence Positively influences Supply Chain Collaboration	3.41	0.26	Significant Positive	H1 Accepted
H2: Supply Chain Risk Negatively influences Supply Chain Collaboration	-0.80	-0.04	Not Significant	H2 Not Accepted
H3: Resource Complementary Positively influences Supply Chain Collaboration	7.08	0.56	Significant Positive	H3 Accepted
H4: Supply Chain Collaboration Positively influences Collaborative advantage	14.14	0.79	Significant Positive	H4 Accepted
H5: Collaborative Advantage Positively influences Firm Performance	4.98	0.64	Significant Positive	H5 Accepted
H6: Supply Chain Collaboration Positively influences Firm Performance	2.57	0.25	Significant Positive	H6 Accepted

Collecting data from 982 logistics companies who were sent questionnaires via the internet and couriers, so 163 companies filled out and returned the questionnaires (18%). The inspection and selection process obtained 161 valid questionnaires from 151 logistics companies (sample size). The data analysis procedure begins with statistical descriptive analysis. This analysis aims to determine the respondents' answers to the questionnaire, the characteristics of the logistics companies participating in this study, and to determine the characteristics of the data used in this study. All questions/statements in the questionnaire used 6 Likert scales, where 6 represents the highest score (strongly agree) and 1 represents the lowest value (strongly disagree). SPSS 21 software was used to run this descriptive analysis.

4. Results

Based on Table 1, it can be seen that the average of all research variables is between a score of 4 and 5. It can be interpreted that the average respondents' responses to the statements in the questionnaire are between slightly agree and agree. Moreover, this table shows that all bivariate correlations between the two study variables are significant at the 0.01 level. In addition to using the “two-stage approach”, this simplified measurement model is combined with the structural model of the research variables to form a simplified complete SEM model. The second stage of the SEM procedure is the analysis of the structural model. At this stage, a simplified full SEM model is estimated using the research data sample and generating paths. Table 2 shows that except for the average Technological Competence and Supply Chain Risk which are 3.86 and 2.98, respectively, the average of all research variables is between a score of 4 and 5, this can mean that the average response respondents to the statement in the questionnaire is between slightly agree and agree. In addition, table 4 also shows that except for all the non-significant bivariate correlations with Supply Chain Risk, the remaining bivariate correlations between the two study variables are significant at the 0.01 level. Regarding the path diagram and the estimation results are summarized in table 2, it can be concluded that only the research hypothesis (H2) is not accepted.

5. Discussion

In accordance with the collaboration motivation of most companies is the desire to access and obtain unique resources (Das and Teng, 2008), this study proves that sharing complementary resources is the main criterion in partner selection. These results prove the opinion that the greater the complementary ability between partners (complementarity), the greater the probability of successful collaboration (Kale and Singh, 2009). This statistical test also proves the resource-based view theory in testing collaboration in which companies basically use collaboration to gain access to other companies that have valuable resources (Das and Teng, 2000: 32-22). More precisely, the need for speed and accuracy in export-import activities in Indonesia makes logistics operational capabilities a determining factor for partner attractiveness. Operational logistics capability is an important indicator according to logistics service providers in Indonesia because export-import activities at ports are activities with very short deadlines. Logistics service providers assess this logistics operational capability as a key dimension and priority of complementary partner criteria versus the resource dimension of potential supply chain collaboration partners. This finding proves that previous empirical studies have shown that collaboration failure is more common if the company chooses partners with low abilities or less collaborative experience (Thornhill dan Amit, 2003).

Competitive advantage in managing network and business information becomes a critical point, namely through information and communication technology competencies (Mc Laren et al., 2002; Cruijssen et al., 2007; Shan et al., 2011). This is because information technology competence can reduce coordination costs, improve coordination activities and reduce transaction risk among collaborating partners (Vickery et al 2003). In addition, technological competence also helps companies identify and bridge relationships with potential partners so that they are more ready to collaborate (Frohlich, 2002; Wu et al., 2006). These competencies are also at the same time an enabler for collaboration and ensure the success of long-term collaboration (Esper and Williams 2003). Various technologies and applications used in export-import activities require the ability to bridge the gap as well as integrate information systems to ensure the smooth flow of information and successful collaboration at various levels of information systems. (Frohlich, 2002; Wu et al., 2006).

Regulation and legal are indicators that are considered the biggest sources of risk that can disrupt or hinder the distribution of goods and information according to logistics service providers in Indonesia. Changes are considered too frequent and have major impacts, ranging from laws, and policies to strategic regulations. Therefore, the source of import supply chain risk in Indonesia above is largely determined by performance risk or external risk. This performance risk category shows that supply chain partners in Indonesia have a high tendency to take risks or risk takers for collaboration performance that is not on target, even though the relationship between partners during collaboration is still going well. This condition is carried out by the majority of logistics service providers with consideration of the increasingly fierce level of competition even though it has an impact on increasing the cost of controlling and supervising the export-import cooperation chain.

It can be concluded that supply chain collaboration has a dominant influence on collaborative profits. This is because decision synchronization is the dominant indicator of effective and efficient supply chain collaboration. Synchronization of decisions is the most important indicator of the effectiveness and efficiency of supply chain cooperation in export and import activities in Indonesia. Even though logistics service providers have used technology in accessing, processing, and distributing information in supply chain collaboration, decision-making is still done jointly. Therefore, in supply chain collaboration in this industry where there is a process of sharing information, resources, and risks as well as relationships, alignment of decisions between collaboration partners is the main prerequisite for collaboration to run effectively and efficiently. It can be concluded that supply chain collaboration between logistics service providers in Indonesia which is characterized by synchronization of decisions through deliberation and consensus has also become part of the national culture and corporate culture.

The company's performance shown is directly influenced by collaborative profits through the flexibility offering indicator. Supply flexibility is the most important indicator considered by import logistics service providers in Indonesia. Due to Indonesia's rapidly changing export-import operations today, both customers and regulators are requiring companies to adapt by offering new, more efficient logistics services. The

collaborative advantages of flexible offerings can be obtained through complementary logistics capabilities, competence in maximizing information and communication technology, the commitment of supply chain members in providing competent personnel, and a shared strategy and work culture through previous collaborative experience to address supply chain risks stemming from regulation. , law, and bureaucratic changes.

In addition, the company's performance is shown in the form of non-financial performance (customer satisfaction). Non-financial performance is the most important indicator in measuring the success of cooperation between logistics service providers. This finding is in line with concerns about relationship risk with relational risk or internal risk rather than performance risk or external risk. In other words, logistics service providers prioritize relational stability by maintaining closer relationships between companies than achieving performance due to external factors. This finding is related to the dominant criteria for partner selection in this study, namely relational stability, where the suitability of strategy, culture, and corporate style ensures the sustainability of cooperative relationships. So that financial performance has not become a top priority due to additional costs due to weak law enforcement by the government in ensuring the implementation of the law. However, supply chain collaboration as a whole still has a very dominant influence on company performance.

6. Conclusion

This study provides empirical data that partner selection criteria have an important influence on the formation of supply chain collaboration. And also the conclusion of this study is that the selection of partners has a positive effect on company performance. With regard to the empirical test, the resource competency criteria and partner technology competence contribute to the selection of collaboration partners where complementary partners have the highest influence on supply chain collaboration. In the context of the logistics industry in Indonesia, complementary partners are a more important criterion in supply chain collaboration. This means that the motivation for cooperation is still the need to obtain resources such as empty containers and logistical operational capabilities. On the other hand, supply chain risk partners are not a selection criterion among logistics service providers. Supply chain collaboration can not only create collaborative advantages but also affect enterprise performance more than collaborative profits. This means that creating a competitive advantage together will better guarantee the success of the company.

1.2. The managerial implication of this research for logistics service providers is that business actors must first apply the concept of less asset-based through partnerships such as vendor management and economic sharing. Second, third-party logistics consistently apply the right information and communication technology. The last is compliance in following the rules, regulations and applicable laws will greatly determine reputation and legitimacy such as the implementation of conflicts of interest, culture, and work systems through transparent, accountable, and auditable agreements or contracts.

There are several limitations in the study, namely the first research is still cross-sectional and it would be better if it was continued longitudinal. Second, in supply chain collaboration is a process of sharing risk and information, it is recommended to conduct further investigations by including criteria that are appropriate to the context of the collaboration. These studies are still carried out on horizontal collaboration so it is deemed necessary to test lateral collaboration. Fourth, due to the influence of institutional contexts such as institutional pressure, further research can also be learned from institutional theory**.**

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