ANTECEDENTS AND CONSEQUENCES OF *ALLIANCE STABILITY* ON THE OIL INDUSTRY IN INDONESIA

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Abstract

The objective of this research is to analyze the antecedents and the consequences of alliance stability on the oil industry in Indonesia. The study is designed by employing a hypothesis testing. It is a quantitative non-experimental study by using questionnaires that were distributed to 121 respondents. The study involved all production-sharing contractors (KKKS) in February 2019. The data are analyzed using the SPSS and the AMOS sofwares. The study produces the following outcome: partner similarity has positive and significant influence on alliance performance, partner similarity has positive and significant influence on alliance stability, partner similarity has positive and significant influence on alliance capability, alliance capability has positive and significant influence on alliance stability, alliance stability has positive and significant influence on alliance performance, alliance capability has positive and significant influence on alliance performance, alliance experience has positive and significant influence on alliance capability, alliance experience has positive and significant influence on alliance performance. The mediating effect of alliance stability may increase the influence of partner similarity on alliance performance, the mediating effect of alliance capability may increase the influence of partner similarity on alliance performance, and the mediating effect of alliance capability may increase the influence of alliance experience on alliance performance. This study has some limitations, amongst which concerning the respondents which are taken exclusively from Production-Sharing Contractors (Kontraktor Kontrak Kerja Sama / KKKS). The study uses the quantitative method, using surveys and a data collection process that take place within a short time span and with limited respondents.

Key words: Partner Similarity, Alliance Capability, Alliance Experience, Alliance Stability, Alliance Performance.

Preface

In the midst of challenges encountered by the oil and gas industry, the entrepreneurs engaged in this industry are compelled to introduce efficiency in their enterprises. One of such efforts is by improving the performance

of the S*upply Chain Management* (SCM) or the provision of goods and services chain within the oil and gas sectors. The Special Task Force for Upstream Oil and Gas Business Activities (*Satuan Kerja Khusus Pelaksana Kegiatan Usaha Hulu Minyak dan Gas Bumi / SKK Migas*) has gathered the Production-Sharing Contractors (PSCs) and has applied various policies involving efficiency in the upstream oil and gas business activities. The strategies aimed at improving the system within Supply Chain Management activities have great importance in the stages starting from exploration through to exploitation. At each stage of the supply chain, goods and services are required, as much as vendors and contractors are required (Simatupang, Head of Agency for National Capacity of the Agency in the *Satuan Kerja Khusus Kegiatan Usaha Hulu Minyak dan Gas*, 2018/dunia-energi.com).

Pertamina asserts its potential to reach added value and efficiency amounting to US$ 651 million if procurement of crude oil and oil products is transformed into an *Integrated Supply Chain* (ISC). Furthermore, transformation into an ISC has produced three important phases, namely Phase 1.0 or the Quick Win phase, Phase 2.0 or the ISC World Class phase, and Phase 3.0 whereby ISC will turn into a Talent Engine. (Soetjipto, Pertamina President Director, 2018/migas.esdm.go.id).

Company performance needs to be backed by a strategic alliance. Strategic alliance has become a competitive strategy foundation by many companies. There is an increasing number of companies that use the strategic alliance as a means to, for example, penetrate a new market, share development costs, widen the market reach and provide comprehensive solutions for customers. A number of companies value the particular benefits brought about by a strategic alliance (Heimeriks and Duysters, 2007). The increased interest in strategic alliances prompts a higher interest in a company's capability to manage such alliance. Strategic alliance is a voluntary link-up between organizations, designed to facilitate market penetration, technology exchange or lessons learned. (Luvison and Man, 2015).

Various theoretical perspectives have been used to examine the antecedent of *alliance performance* (Heimeriks and Duysters, 2007). *Alliance performance* is influenced by *alliance stability* (Gao et al., 2017), where *alliance performance* may be seen as a continuation of a stable and cooperative rapport which enables the cooperating partners to secure benefits out of such rapport (Yang et al., 2008). *Alliance stability* refers to a level wherethe alliance may run and develop successfully based on an effective collaboration within all partners. This conceptualization demonstrates that stability is dynamic, is based on multi-dimentional process and construction (Jiang et al., 2008; Gao et al., 2017).

Alliance performance and *alliance stability* are influenced by *partner similarity* dan *alliance capability* (Gao et al, 2017). Kale and Singh (2009) expressed that *partner similarity* is extremely important, considering that dissimilarity in the partners may bring lack of trust and higher transaction costs, thereby creating an unstable alliance. Similarity between partners mitigates opportunistic behavior and contributes to coordination; too much similarity however may also limit the benefits from the alliance.

Studies on inter-company alliances within various industries found positive as well as negative influences brought about by the extent of similarity inherent in the companies in a variety of dimensions (Gao et al, 2017). In the light of inconsistency in the finding, a number of researchers have called for further studies to open the "black box" between the function of alliances, *alliance experience*, and *alliance performance* (Wang dan Rajagopalan, 2015). The two latest studies show that *alliance portfolio capability* mediates the link between *alliance experience* and *alliance performance* (Heimeriks dan Duysters, 2007) and that the alliance learning process mediates the link between the alliance function and the alliance success (Kale and Singh, 2009).

Lichtenthaler (2016) found that companies with an emphasis on exploration alliances have a higher level of alliance portfolio capability. Alliance portfolio capability can positively influence company alliances, innovations, and financial performance. While alliance portfolio capability is assumed to have an equally

positive effect on alliance performance for all types of portfolio alliances, and financial performance. Gao, et.al., (2017) found that partner similarity and alliance capability were positively correlated with alliance stability and performance in horizontal alliances, especially competency similarity and cultural similarity. In addition, alliance stability mediates the impact of partner similarity and alliance capability on alliance performance.

This research differs from previous studies, where the findings of this study will identify areas that have been ignored in previous studies and will broaden researchers' understanding of unresolved problems in studies related to the role of partner similarity, alliance experience and alliance capability and alliance stability in an effort to improve alliance performance at PT. Pertamina Indonesia.

Referring to the background and recommendations as well as previous research suggestions, the formulation of the problem of this study is: whether there is an influence of partner similarity on alliance performance, whether there is an influence of partner similarity on alliance stability, whether there is an influence of partner similarity on alliance capability, whether there is an influence of alliance capability on alliance stability, is there an influence of alliance stability on alliance performance, is there an influence of alliance capability on alliance performance, is there an influence of alliance experience on alliance capability, is there an influence of alliance experience on alliance performance, does the mediating effect of alliance stability increase the influence partner similarity on alliance performance, does the mediating effect of alliance capability increase partner similarity influence on alliance performance, and whether the mediating effect of alliance capability increases the influence of alliance experience on alliance performance?

Literature Review

Strategic alliance are long-term cooperative agreement between partner companies that remain legally independent of each other after forming alliances, sharing the benefits of cooperation and government control over the goals set and continuously engaging in one or several important strategic areas (Zenkevich, Koroleva, Mamedova, 2014). Gomes, Barnes and Mahmood (2016) provide comprehensive reviews of more than 800 articles that have appeared in 22 leading management journals over a 22-year period and stating that strategic alliances are very important.

Alliance performance is the fulfillment of objectives including initial and emerging goals as well as general and personal goals. A company's alliance performance refers to effectiveness in terms of meeting strategic objectives in their alliance (Lichtenthaler, 2016). However, alliance performance is difficult to measure because of research barriers such as differences in industry backgrounds, complexity of alliance partners and so on. Previous research measures alliance performance by partner satisfaction with achieving its goals (Gao et.al, 2017).

Rau and Wallenburg (2013) use an established comprehensive perspective on the final performance and include the overall performance of the collaboration as the level at which cooperation achieves the objectives and benefits of the companies that work together. As has been shown by previous research, the final performance of horizontal logistics service providers' cooperation is mainly driven by two intermediate outcome dimensions, namely innovation and commitment to cooperation.

According to Saxton (Gao et al, 2017), measuring alliance performance, which reflects overall satisfaction with the alliance, the level at which it has fulfilled the goals of the partners and the contribution of the alliance with the partner's core competencies. Actually, there are no items that are perfect for measuring alliance performance. Gao et.al (2017) conducted a study and divided alliance performance into two dimensions, namely: overall alliance performance and market share and profitability.

Partner similarity is fundamental conformity, strategic compatibility, and cultural congruence between partners who work together. Partners must have the same cultural characteristics to achieve success, and the

wider the cultural gap between partners, the worse their performance (Meirovich, 2010). Partner similarity is very important given that partner dissimilarities can cause a lack of trust and higher transaction costs, thus causing instability of the alliance. There is evidence to suggest that an alliance partner is potentially vulnerable to the opportunistic behavior from its partner (Sklavounos, Rotsios & Hajidimitriou, 2015). Similarities between partners reduce opportunism and contribute to coordination, but too much similarity can also limit the alliance's benefits. Too many dimensions of commonality can lead to competition rather than partnership with alliance partners. Competing because of similarities including geographical market coverage, product market coverage, technological expertise and overall strategic strength have been shown to be negatively related to alliance performance (Linwei, Feifei, Yunlong, & Nengqian, 2017). Partner similarity has both positive and negative effects on the success of the alliance, which leads to the sharing of common needs and goals and beneficial results.

Gao et.al (2017) based on the framework of this alliance, Raue and Wallenburg (2013) conducted a study and divided partner similarity into three dimensions, namely: competence similarity, geographic similarity, cultures similarity.

Alliance experience is lessons learned, as well as knowledge generated through alliances with previous companies (Heimeriks and Duysters, 2007). These lessons and knowledge tend to become embedded in the minds of the individuals involved and this provides the basis for organizational routines with respect to carrying out certain tasks or activities. Alliance experience is defined as a number of previous company alliances, contributing to alliance performance (Lichtenthaler, 2016).

Heimeriks and Duysters (2007) measure alliance experience using the number of alliances formed by the company over the past five years as a proxy for alliance experience. This approach is in line with previous research. In the literature, there is a growing consensus that five years is the appropriate period for examination to be conducted (Zollo et al., 2004). This is considered as the average period during which the alliance can still contribute to the company's level of experience.

Alliance capability is a company's ability to effectively capture, share and disseminate alliance management knowledge, related to previous experience (Cobena, Gallego & Casanueva, 2017). Alliance capability is a company's ability to manage, integrate, and learn in strategic relationships to achieve mutual benefits (Kohtamäki, Rabetino and Möller, 2018). High-level resources that are difficult to obtain or emulate and have the potential to improve the performance of a company's alliance portfolio (Heimeriks, et al, 2012). The alliance management ability consists of coordination, communication, and bonding skills which are very important during the post-formation phase of the alliance (Schreiner et al., 2009)

Gao et.al (2017) conducted a study and divided alliance capabilities into three dimensions, namely: learning mechanisms, logistics alliance management capabilities; evolution of operational logistics activities. The implementation of various logistics alliance management capabilities, such as alliance knowledge management, special alliance functions, alliance design, coordination, relational governance, monitoring and adaptation and the evolution of operational logistics activities may have increased overall alliance performance, market share, sales levels and profitability.

Three dimensions, learning mechanisms, logistics alliance management capabilities and the evolution of operational activities, play an important role in the success of the alliance. In particular, alliance capability manages joint activities between alliance partners with learning mechanisms to improve the implementation of logistics and adaptation activities that are relatively adequate to the context of logistical alliances, with coordination and routine relational governance to meet the specificities of the logistics market, by controlling and monitoring mechanisms to direct implementation effective operational processes (Brekalo et al., 2013).

Strategic alliance stability must be understood as the successful performance of the alliance during the operating period of the alliance under conditions of constant motivation of each partner company to maximize the cooperation outcome (Zenkevich, Koroleva, Mamedova, 2014). Alliance stability is the level at which alliances can run and develop successfully based on effective collaborative relationships shared by all partners (Jiang, Li, Gao, 2008). Stability meaning in the process of movement, or disturbance, whether the system can maintain its previous state. As for certain strategic alliances, that means strategic alliances, where an organization is able to maintain its stability, this is dynamic stability, relative stability. The instability of an alliance means a short and fragile collaboration, and an alliance failure.

Gao et.al (2017) conducted a study and divided alliance stability into three dimensions, namely: unstable-stable, short-term-long term, insecure-secure. The company not only builds a learning process, but also develops management skills such as alliance design, coordination, governance and relational monitoring and behavior to effectively operate logistics activities after the alliance is organized and run. In addition, it is necessary for companies to have the knowledge and skills to help partners create a good environment for alliance cooperation, which supports reducing uncertainty and opportunistic behavior to help partners work together openly and directly and create stable and long-lasting partnerships (Yang et al ., 2008).

Based on the theory and results of previous studies, the research hypothesis is proposed as follows: similarity partner has a positive influence on alliance performance, partner similarity has a positive influence on alliance stability, partner similarity has a positive influence on alliance capability, alliance capability has a positive influence on alliance stability, alliance stability has a positive influence on alliance performance, alliance capability has a positive influence on alliance performance, alliance experience has a positive influence on alliance capability, alliance experience has a positive influence on alliance performance, the mediating influence of alliance stability increases the influence of partner similarity on alliance performance, the mediating influence of alliance capability increases the influence of partner similarity on alliance performance, and the mediating influence of alliance capability increases the influence of alliance experience on alliance performance.

Research Methods

The research design used in this study is the testing hypothesis. In this study, the causal relationship of the variables studied was examined so that it is a causal study.

This research is quantitative, non-experimental, using a questionnaire. The population observed was 92 Production Sharing Contractors (PSCs/*KKKS*). The number of samples obtained was 121 respondents from 27 PSCs in Indonesia during February 2019. Data analysis uses SPSS 25 and AMOS 24 softwares.

Research Result

The results of testing the hypothesis and the p-value can be seen in the following table:

Table 1: Calculation Result of Direct Effect

No	Influence Between Variables			Estimate	C.R. (T)	P	Conclusion
H1	*Partner Similarity*	→	*Alliance Performance*	0.312	2.205	0.027	Supported
H2	*Partner Similarity*	→	*Alliance Stability*	0.600	3.660	0.000	Supported
H3	*Partner Similarity*	→	*Alliance Capability*	0.383	3.274	0.001	Supported
H4	*Alliance*	→	*Alliance*	0.410	2.188	0.029	Supported

No	Influence Between Variables			Estimate	C.R. (T)	P	Conclusion
	Capability		*Stability*				
H5	*Alliance Stability*	→	*Alliance Performance*	0.284	2.992	0.003	Supported
H6	*Alliance Capability*	→	*Alliance Performance*	0.292	2.475	0.012	Supported
H7	*Alliance Experience*	→	*Alliance Capability*	0.384	3.354	0.000	Supported
H8	*Alliance Experience*	→	*Alliance Performance*	0.233	2.104	0.035	Supported

Table 2: Hypothesis Test Results for Indirect Influence (Mediation)

No	Influence between Variables	T Statistic	P	Conclusion
H9	*Partner similarity → Alliance performance* dengan *Alliance stability* sebagai variabel mediasi	2.316	0.021	**Supported**
H10	*Partner similarity → Alliance performance* dengan *alliance capability* sebagai variabel mediasi	1.974	0.048	Supported
H11	*Alliance experience → Alliance performance* dengan *alliance capability* sebagai variabel mediasi	1.991	0.046	Supported

Conclusion

Partner similarity has positive and significant influence on alliance performance, partner similarity has positive and significant influenceon alliance stability, partner similarity has positive and significant influence on alliance capability, alliance capability has positive and significant influence on alliance stability, alliance stability has positive and significant influence on alliance performance, alliance capability has a positive and significant influence on alliance performance, alliance experience has a positive and significant influence on alliance capability, and alliance experience has a positive and significant influence on alliance performance.

The mediating effect of alliance stability can increase the influence of partner similarity on alliance performance, the mediating effect of alliance capability can increase the influence of partner similarity on alliance performance, and the mediating effect of alliance capability can increase the influence of alliance experience on alliance performance.

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