

THE IMPACT OF CORE RESOURCES AND TYPES OF STRATEGIC ALLIANCE ON ALLIANCES PERFORMANCE IN THE MALAYSIAN COMPANIES

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Abstract---*The purpose of this research is to examine the ways Malaysian companies deal with strategic alliance and to identify the relationships between the resources and type of strategic alliance (strategic partners). Besides that, the objective of this research is to look into the influence of the resources, type of strategic alliance, coopetition of alliance member and key success factors onto the alliance performance. Indeed, the construction of this research depends on the exploration of these relationships, which induce the objectives of this research. The resource-based theory is applied to find out what are the phenomena of strategic alliance in the last five years. The coopetition relationship may affect the performance of alliance. How should companies assess the right type of alliance before partnering with others? What should be the factors leading to the success of alliance? From the empirical findings, many conclusions can be made. Firstly, there is a weak relationship between type of strategic alliances (strategic partners) and core resources. Secondly, the type of alliance has weak significance to alliance performance. Thirdly, there is no evidence to support the relationships between alliance performance and the type of coopetition. Next, the relationship between alliance performance and the key success factors is not supported. Besides that, the type of alliance has weak influence in the alliance performance while the relationship is controlled by coopetition. In addition, the weak effect of the relationships of alliance performance and type of alliance is controlled by the key success factors.*

Keywords---*Strategic Partners, Resources for Strategic Partners, Strategic Alliance*

I. Introduction

The strategic alliance began in the American firm when they cooperate with each other, but last decade, the globalization has forced the firms to form more alliance among each other. The emerging of free trade region has impelled firms to form alliance to stay competitive in the market. Past studies believed that as a result of rapid proliferation technology, the shortening of product life cycle, as well as the prevalent of trade protectionism, the alliance has become indispensable in firms' strategy. Past studies also believed that the flexibility of strategy based on resources conformity effectiveness, which comes, enables the alliance to become choice strategy than acquisition, merging and direct investment. Past studies pointed out that the strategy alliance is one of the important tools for the firms to compete in the globalization (Kumar, Singh, & Shankar, 2015; De Silva et al., 2018a; De Silva et al., 2018b; Nikhashemi et al., 2013).

In private sector, the business reports showed encouragement for the establishment of strategic alliance activities (Abdul-Aziz & Kassim, 2011). The Stars' reported on Feb 24, 2004 that Khind Holding Berhad had formed the strategic partnerships

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with the Indonesia firms to allow the company to save up to 15% in production costs, as well as develop more easily into the Indonesian market. On October, 2003, VADS Bhd (unit of Telekom Malaysia Bhd) has expanded its global reach via a partnership with AT&T Global Network. VADS Bhd was appointed by AT&T to offer its global managed networking services in Malaysia. Sampo Japan has established alliance with MNI (Malaysia National Insurance Bhd.) in Malaysia to provide insurance services, and representative offices in India and Myanmar, to provide insurance information to customers. Barclay Mowlem, an Australian building and engineering company, has formed a strategic alliance with Malaysian-based Emrail Sdn Bhd. Rail Manager Graeme Spragg said the companies' relationship was recently formalized as a strategic alliance to further enhance both parties ability to operate in specific market areas of the railway construction industry in Malaysia and neighboring countries (Ann, Zailani, & Wahid, 2006; Dewi et al., 2019; Pambreni et al., 2019; Tarofder et al., 2017).

In the last decade, the researchers interested in the alliance activity, are exposed into the fast pace of the competitive environment that caused the alliance activity to increase between the firms. The research had explained the reasons for the firms to want to co-operate with others (Chen & Wang, 2010). The purpose for firms to enter the alliance due to the resources has caused the malfunctions of market, strengthen competitive position and absorb knowledge from others, but why have the firms chosen the specific partner when they create the alliance? This objective will be discussed by resource-based viewpoints. There are many success factors affecting the strategic alliances. These factors are different along with the nature of industry. It also varies with the resources of the firm and its overall environment. Therefore, to apply the concept of critical success factors in strategic alliances that enable the alliances' member to exert the superiority is to improve the existing inferiority, grasp the future opportunity, prevent the environment threat and sustain the competitive advantage is fourth objective of this research. In the past, most of the strategic alliance literatures are many emphatically to the alliance motive, the alliance management and the alliance achievements, but they are not many literatures to discuss the selection of specific alliance member from the resource base viewpoint (Chittithaworn, Islam, Keawchana, & Yusuf, 2011; Doa et al., 2019; Maghfuriyah et al., 2019; Nguyen et al., 2019). The discussion of critical success factors only aims at the alliance organization behavior, but neglects the overall elements of key success factor of the inside and outside of the firm. In the competition and under the cooperation incompatible logic, this complex relationship, the relational balance and the maintenance of the coopetition are the subjects that the manager must think deeply in the alliance process.

According to the above research motive, this study hopes to discuss the affiliation by the correlation literature reorganization and the analysis. The study of strategic alliances in Malaysia industry has focused on key success factor, the strength of coopetition between alliance member, the relation of alliance performance, the understanding of the ways the core resources affect the competitive advantage in alliance, and the influence of alliance when the alliance members compete and cooperate to each other (Farinda, Kamarulzaman, Abdullah, & Ahmad, 2009; Pathiratne et al., 2018; Rachmawati et al., 2019; Seneviratne et al., 2019; Sudari et al., 2019; Tarofder et al., 2019).

II. Literature Review

Past studies developed Penrose's (1959) works on firm resources, proposed the resource-based view. Past studies pointed out that the resources are infinite and can be created. He recognizes that the firm must obtain the balance in using the existing resource and developing the new resources. Past studies argued that firm's decision by substituting the "product" with "resources" has significance meaning to the strategic decision-making on the firm (Gill & Butler, 2003). Besides, past studies explained that the long term of firm's business strategy should be focus on the assets and skills. Developing and maintaining meaningful assets and skills includes assessment of internal strengths and weaknesses in skills and competencies provide the

foundation of sustainable competitive advantage (Hussain, Mosa, & Omran, 2017; Nikhashemi et al., 2017; Tarofder et al., 2019; Ulfah et al., 2019; Tarofder et al., 2016; Udriyah et al., 2019). When past studies discussed the competitive advantage with inimitable barriers and persistent of competitors' corrosion, the competitive advantage becomes sustainable. Past studies view the resource based view as the origins of the competitive advantage and valuable resources that firm possess, the core competences that stress intangible assets, and the most introspective and centered on the firm itself. According to past studies in the resource-based theory, the firms concerned the heterogeneous and immobile firm resources that controlled by a firm can provide the sustainable competitive advantage (Hussain, Mosa, & Omran, 2018).

Past studies described that the resource-based theory regards the firm as the combination of valuable resources (physical, intangible and organizational capability), build up and transform the valuable resources to firm's competitive advantage, enables the company to perform activities better or more cheaply than competitors. Each firm has unique set of assets, skills, experiences, organizational cultures, etc (Hussain, Musa, & Omran, 2019). These valuable resources determine how efficiently and effectively a firm performs its functional activities and profitability. They wrote that a core competency is "an area of specialized expertise that is the result of harmonizing complex streams of technology and work activity." Past studies argued that "a core competence differentiates not only between firms but also inside a firm. It differentiates amongst several competencies. In other words, a core competency guides a firm recombining its competencies in response to demands from the environment" (Hussain, Musa, & Omran, 2018). They defined core competencies as "aggregates of capabilities, where synergy is created, and they have sustainable value and broad applicability." Past studies proposed that "a core competence is a combination of complementary skills and knowledge bases embedded in a group or team that results in the ability to execute one or more critical processes to a world class standard (Hussain et al., 2012)."

Past studies describes resources as "anything which could be thought of as a strength or weakness of a given firm (organization), land (intangible) those (tangible and intangible) assets which are tied semi-permanently to the firm". Past studies) defined strategic resources as "stocks of available factors that are owned or controlled by the firm (organization)." Past studies define resources as "all the input factors, both tangible and intangible, that are owned or controlled by the firm". Resources are the core of resource-based theory, recently, many scholars uses the core resource or strategic resource to represent the firm resources, but the core resources have a more wide significance. It includes competence and capability. The "core" has the sole and unique tendency toward the focus point in research. For the purpose of this research, we call it the core resource. Past studies deemed that firm resources to hold the potential sustainable competitive advantage is decided by whether the firm has characteristic (Inkpen, 2000). Past studies suggested that resource must meet five test namely inimitability, durability, appropriability, substitutability and competitive superiority.

- Inimitability: refers to the company's long-term strategy established on the resources which competitors find difficult to imitate. This will reduce and limit competition and resulted in continuous profits making (Jefferies, Gameson, & Rowlinson, 2002).
- Durability: refers to the fact that the more long lasting a resource is, the more valuable it will be.
- Substitutability: the firm' corporate strategy to sustain the competition is by resisting the substitutability of unique resource or using different resources approach
- Competitive superiority: the strategy for the firm to improve its competitive superiority is by disaggregating resources to identify distinctive competence and create value (Kumar et al., 2015).

The word strategic alliance that can be traced back to past studies who studied the alliances that have proved to be valuable competitive maneuvers. There are inherent risks in relying on alliances as the sole or the major strategy for a company during the recession and increasing protectionism. Past studies explained that the strategic alliance is a mutually beneficial process

(Mothilal, Gunasekaran, Nachiappan, & Jayaram, 2012). With interdependence with each other, alliance members are pledged to maintain the alliance if the benefit change for any member that cause the alliance to be weakened. Past studies initiated the concept of the value chain through that the firms can distinguish between cooperative strategies according to the type of resources shared by partners involved. Past studies defined it as the joining of forces and resources, for a specified or indefinite period, to achieve a common objective. There are several key elements in such alliances, they are:

- a joint effort or agreement to ward off common "enemies" (or competitors);
- a commitment by two or more parties to share responsibilities equally or in relation to their relative strength;
- a sharing of knowledge or information between the parties by way of trading or skills exchange; usually stipulated within a time frame or have defined objectives.

Past studies related the alliance type to the purpose and composition of operational alliances or partnerships. There are: (1) joint marketing partnerships; (2) intra-industry partnerships; (3) customer-supplier partnerships; (3) IT vendor-driven partnerships. Past studies proposed two types of strategic alliances unilateral contract-based alliances and bilateral contract-based alliance the key features are:

- When aim is transferring explicit knowledge
- When there is an existence of well-defined transfer of property rights,
- When Technology-for-cash is implemented

Bilateral contract-based alliances:

- Partners have sustained production of property rights
- Working together on continuing basis
- Integration
- Incomplete contracts, more open-ended
- If equity JVs are too expensive for learning the others' know-how
- Bilateral contract-based alliances: Considering both partners are the knowledge-based resource in an alliance, joint production, joint R&D, and joint marketing are the choices for this type of alliance. Because of the tastiness and complexity knowledge-based resources, the barriers of resources' imitability will not prevent the partners from these secretly resources, and the learning race of the partners believing in their ability to be leader will lead to intentionally alliance termination (Nawaz, Afzal, & Shehzadi, 2013).

Adopting the research from past studies, this study will divide the coopetition relationship of alliance member to cooperative type and competitive type

- The cooperative type is that the firms cooperating in the value activity or in different product market are far from the customer
- The competitive type is that firms are closer to customer when competing in the value activity or in same product markets.

In defining today's firms' environment, the critical success factors most aptly describes core skills and resource that is used by firms to sustain the competitive advantage and the limited number of areas in which results, if they are satisfying, will ensure the competitive performance of the organization (Nawaz, Azam, & Bhatti, 2019). The influence of the critical success factors (CSFs) to the strategic alliances is one of the objectives of this study. Past studies introduced the critical

success factors as a few factors which are decisive for the success of the company, and that these factors can be ascertained. Past studies coined the term critical success factors that link to management information system, argued that such systems must be structured according to the information needs of the managers. Past studies defined critical success factors as follow: "Critical success factors thus are, for any business, the limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department or organization. Critical success factors are the few key areas where 'things must go right' for the business to flourish and for the manager's goals to be attained (Nawaz & Hassan, 2016)."

Past studies defined the critical success factors as the "events, conditions, circumstances or activities. Specifically, that is the limited number of areas in which results, if they are satisfactory will ensure the successful competitive performance of the organization". In early 1960', past studies applied the concept of strategic factors in his dynamic strategy for the organization success. He deemed that the essential strategic attributes of resource are that they represent action potential. Critical resources are the bundle of chips that the company has to play with in the serious game of business. Resources are the critical factors limiting the achievement of corporate goals and the basis of strategy (Sambasivan, Siew-Phaik, Mohamed, & Leong, 2013). Past studies suggested the term critical success factors to define those satisfactory performance measures will ensure successful competitive performance for the organization. Past studies describing Key success factors (KFS), stated that "when the company has in effect no more management resources than its competitors in the same business or trade, it can often achieve resounding competitive success if it is effective in bringing those resources to bear on the one crucial point". Past studies believed critical success factors are the criteria for the firm to hold competitive advantage, and only the firm that is able to identify the critical success factors of the market can establish the sustained competitive advantage. The critical success factors must come from the identifying strength and weakness of the business, and strength and weakness of competitor with respect to the critical success factors (Zakuan, Yusof, Laosirihongthong, & Shaharoun, 2010).

III. Research Methods

The purpose of this paper is embarking from resource-based view to discuss characteristics of firm resources, type of strategic alliances, cooperation, critical success factors and the relationships with alliance performance as the figure 1 showed the structure of this research.

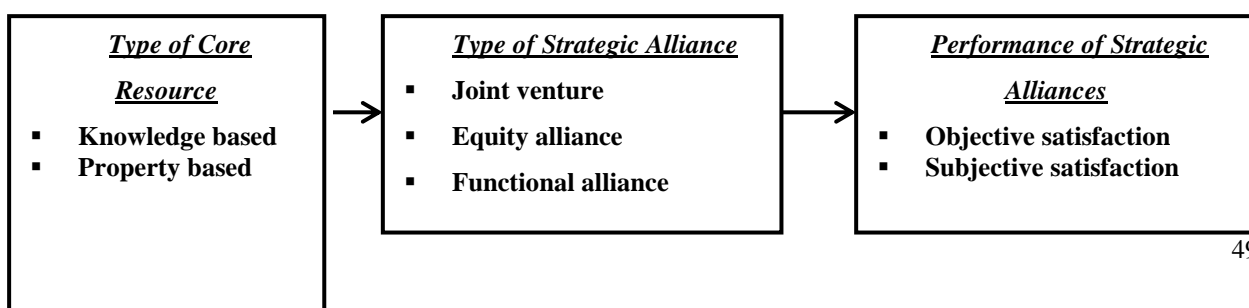


Figure 1: Theoretical Framework

The relationship between type of strategic alliance and type of core resources

Past studies deemed that the type of resource contributed by the firm is able to predict the form of strategic alliance to be formed. Therefore the first hypothesis is:

H₁: The type strategic alliances are conspicuously related to type of core resources.

The relationship between alliance performance and the type of strategic alliances

From the discussion of literature review past studies, we understand that the form of strategic alliance will affect alliance performance. Therefore, the second hypothesis is:

H₂: The alliance performance is associated with the different type of strategic alliances.

A survey questionnaire was used to gather data for this study. The Survey questionnaire contains 6 sections: 1. The type of core resources, 2. The type of strategic alliances, 3. The strength of coopetition relationship, 4. The critical success factors, 5. The performance of strategic alliance, 6. The data of the firm.

According to above criteria, the Cronbach's value of each variable is calculated and listed in the following table 1: The alpha of the type of strategic alliance have been adjusted to $\alpha=0.559$ after deleting. Overall the high reliability ($\alpha=0.905$) of measurement indicated that the items are positively correlated with one another.

Table 1: Cronbach's alpha of variables.

Variables	Cronbach's Alpha Based on Standardized Items	Question items	Cronbach's Alpha Based on Standardized Items (Adjusted)
The type of core resource	0.862	23	0.862
The type of strategic alliances	0.396	10	0.559
The performance of strategic alliances	0.879	8	0.879

IV. Findings

From the analysis of the period of the firm establishment, the sample revealed that 77% of the firms have been established for more than 10 years (Table 2).

Table 2: Year of establishment

Year Established	Firm	%
1) < 2 years	1	2.6
2) 2 ~ 6 years	1	2.6

3) 7 ~ 10 years	7	17.9
4) 11 ~ 15 years	13	33.3
5) 16 ~ 20 years	3	7.7
6) > 20 years	14	35.9
Total	39	100.0

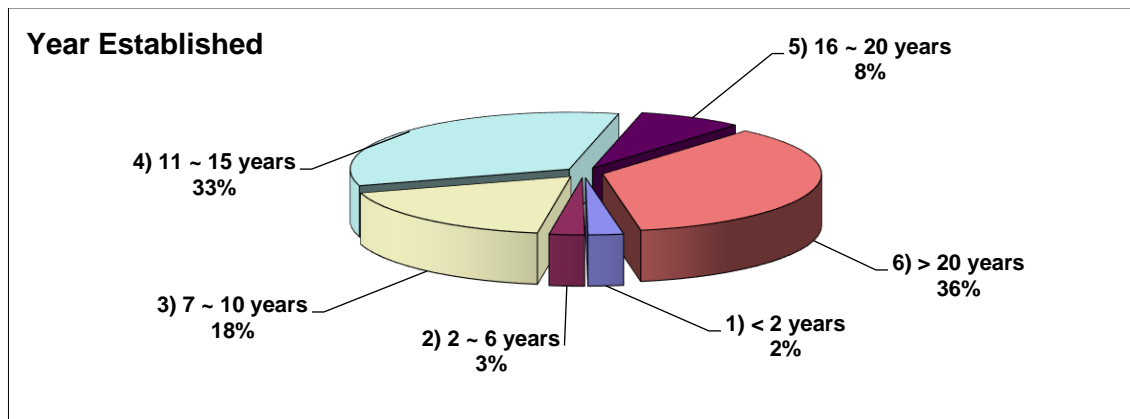


Figure 2: Year of establishment

Analysis of employees

Total 31% of the firms have more than 1000 of employees. (Table 3).

Table 3: Analysis of employees.

Employee	Firm	%	Industry
1) < 10	2	5.1	Small medium industry
2) 11 ~ 50	4	10.3	
3) 51 ~ 150	7	17.9	
4) 151 ~ 300	2	5.1	Large Industry
5) 301 ~ 500	6	15.4	
6) 501 ~1000	6	15.4	
7) > 1000	12	30.8	
Total	39	100.0	

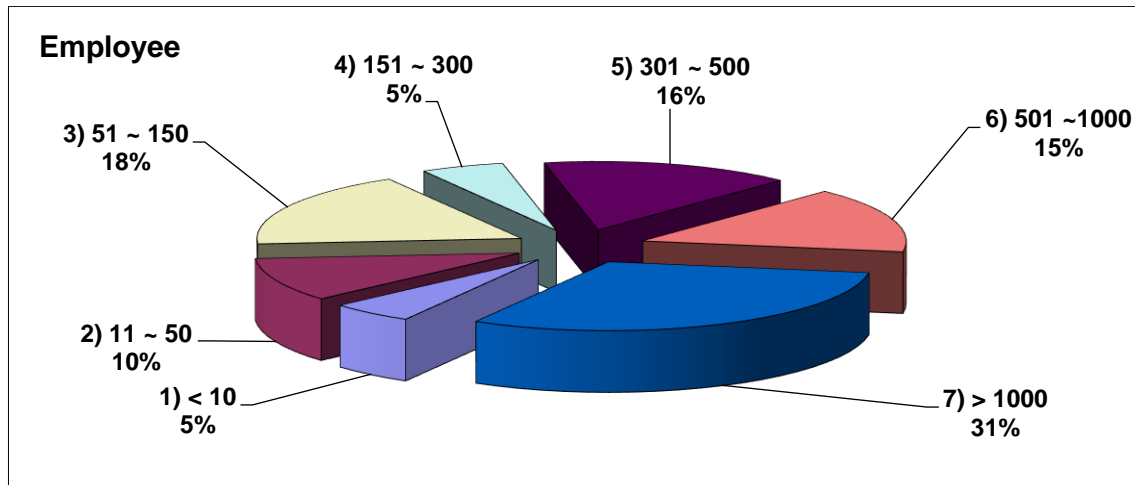


Figure 3: Analysis of employees

Cluster analysis was performed based on measurement indicator of knowledge-based and property based. The analysis reported that 32 firms are in cluster 1, and 7 firms belong to cluster 2 (Table 4). Comparing the mean value of two clusters, cluster 1 has higher means value (3.85) than cluster 2 (mean: 2.67) in the category of knowledge-based resource; therefore, we name the firms in cluster 1 as the knowledge-based resource firm, and the firms in cluster 2 as the property-based resource firm. The cluster analysis result illustrated that 32 firms are not only the knowledge-based but also high in property based. Pearson correlation was performed between two clusters, and it indicated a significant influence of knowledge based and property based (Table 5).

Table 4: Cluster analysis of core resource.

	Cluster	
	1	2
Property-based resource firm	3.59	3.14
Knowledge-based resource firm	3.85	2.67
No of Firms	32	7
Type of Resource	Knowledge-based	Property-based

Table 5: Correlation of core resource.

		Property-based resource firm	Knowledge-based resource firm
Property-based resource firm	Pearson Correlation	1	.619(**)
	Sig. (2-tailed)		.000
Knowledge-based resource firm	Pearson Correlation	.619(**)	1
	Sig. (2-tailed)	.000	

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

Cluster analysis was performed and reported that 32 firms involves in functional alliance, 4 firms belongs to joint venture type and 3 firms are in the nature of equity alliance. The cluster analysis result is closed to the survey as reported that 35 firms are involved in functional alliance, 2 firms are involved in joint venture, and the other 2 firms are involved in equity alliances (Table 4.8). The table also reveals that most of the Malaysian companies are involved in functional alliances. Pearson correlation indicated no significant influence among the type of strategic alliance (Table 6).

Table 6: Cluster analysis of type of alliance.

	Cluster		
	1	2	3
Joint Venture	3.07	1.17	1.78
Equity Alliance	3.09	1.88	4.33
Functional Alliance	3.16	3.19	3.83
No of Firms	32	4	3
Type of Alliance	Fonctionnel Alliance	Joint-Venture	Equity Alliance
By Survey-No of firms	35	2	2

Table 7: Correlation of type of alliance.

		Joint Venture	Equity Alliance	Functional Alliance
Joint Venture	Pearson Correlation	1	.053	.012
	Sig. (2-tailed)		.746	.940
Equity Alliance	Pearson Correlation	.053	1	.164
	Sig. (2-tailed)	.746		.319
Functional Alliance	Pearson Correlation	.012	.164	1
	Sig. (2-tailed)	.940	.319	

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

Analysis of alliance performance

The analysis of the alliance performance is based on the application of objective and or subjective measure. From Table 8, the majority of the firms hold positive manner and satisfied with their alliance performance either in subjective or objective

satisfaction. Overall, the firms are satisfied with their objective degree of performance. Pearson correlation indicated a significant influence among the type of alliance performance (Table 9).

Table 8: Mean value of alliance performance.

Type of Variables	Variables	Mean
Subjective Satisfaction	Satisfied with alliance organization's operation.	3.56
	Satisfied with the achievement of the goals of the alliance.	3.44
	Satisfied with the whole alliance's operation.	3.49
	Average- Subjective	3.49
Objective Satisfaction	Satisfied with the experience of learning from the alliance operation.	3.72
	After participating in the alliance, your firm's sales are growing compared to its competitors.	3.59
	After participating in the alliance, your firm's market share has increased compared to its competitors.	3.46
	Satisfied with the overall alliance's performance.	3.59
	Satisfied with the achievement of the goal of alliance.	3.59
	Average-Objective	3.59
Performance	Average -Total	3.55

Table 9: Correlation of alliance performance.

		Subjective-satisfaction Performance	Objective-satisfaction Performance
Subjective-satisfaction Performance	Pearson Correlation	1	.562(**)
	Sig. (2-tailed)		.000
	Pearson Correlation	.562(**)	1

Objective-satisfaction Performance	Sig. (2-tailed)	.000	
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** Correlation is significant at the 0.01 level (2-tailed).

▪ Core Resource

In this study, the result indicated that those knowledge-based firms are also property-intensive type of business. Compared to the resource-based firm, they are also knowledge intensive. Pas studies mentioned that the firm with high degree of resource dependency often needs to access and control external complementary assets in order to generate profit. Pas studies emphasized there is the need for firms to access the external complementary assets because the firms need to succeed in commercializing their products and services.

▪ Type of strategic alliance

In this study, there are 35 firms involved in functional alliance activity. To add to that, even the joint venture and equity alliance types of firms are also highly involved in functional alliance activity. The hybrid function of alliance for the firm is to have competitive advantage in the business. Pas studies provided a resource-based motivation for alliance formation by new, technology-based firms, stating that alliance formation offers a number of advantages such as learning, creation of legitimacy and fast market entry.

▪ Alliance performance

Either in subjective satisfaction or objective satisfaction, the 39 firms merely satisfied with their performance of alliance. This could be no financial indicator or profitability-related factor to be measured as traditionally included. What really constitutes a suitable measure has been a subject of intense debate.

Correlation analysis of variables

This section is using Pearson correlation to examine the relationship between the variables understudied and reported only if the correlation is significant at the 0.01 level. Correlation analysis of variables of type of alliance and alliance performance. Marketing and after-sale service alliance is correlated with satisfaction in the learning experience and satisfaction in the alliance performance.

Table 10: Correlation of variable - Marketing and after-sale service alliance vs. satisfaction in the learning experience and satisfaction in the alliance performance.

		E3-Your firm is satisfied with the experience of learning from the alliance operation.	E7-Your firm is satisfied with the overall alliance's performance.
B5-Your firm has many alliance partners in marketing and after-sale service aspects.	Pearson Correlation	.413(**)	.426(**)
	Sig. (2-tailed)	.009	.007

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

Exchange of personnel is correlated with satisfaction in the alliance operation, achievement of alliance goal and whole alliance operation (Table 11).

Table 11: Correlation of variable - Exchange of personnel vs. satisfaction in the alliance operation, achievement of alliance goal and whole alliance operation.

		E1-Your firm is satisfied with alliance organization's operation.	E2-Your firm is satisfied with the achievement of the goals of the alliance.	E6-Your firm is satisfied with the whole alliance's operation.
B6-Your firm frequently carries on exchange or personnel with other companies.	Pearson Correlation	.457(**)	.470(**)	.441(**)
	Sig. (2-tailed)	.003	.003	.005

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

Correlation analysis of variables of coopetition and alliance performance. Helping partners when having problems is correlated with satisfaction in the whole alliance's operation (Table 12).

Table 12: Correlation of variable - Helping partners when having problems vs. satisfaction in the whole alliance's operation.

		E6-Your firm is satisfied with the whole alliance's operation.
C6-Your firm always has taken the initiative to help its partners when they are having problems.	Pearson Correlation	.429(**)
	Sig. (2-tailed)	.006

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

Adjustment of contract is correlated with learning experience from alliance operation (Table 13).

Table 13: Correlation of variable – Adjustment of contract vs. learning experience from alliance operation.

		E3-Your firm is satisfied with the experience of learning from the alliance operation.
C7-Your firm is willing to adjust the contract with its partner in accordance to the change in environment.	Pearson Correlation	.451(**)
	Sig. (2-tailed)	.004

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

V. Discussions and Conclusions

The empirical investigation is based on a survey on Malaysian firms in various industries. The survey questions contain the variables of resources, type of alliance, competition, critical success factors and alliance performance. Two types of test have been applied in this study: 1. Pearson correlation applied to explore the information of the relationship between any two variables. 2. The test of multivariate analysis of variance (MANOVA) and partial correlation was applied to rectify the hypothesis of this research.

From the empirical findings, many conclusions can be made. Firstly, there is a weak relationship between type of strategic alliances (strategic partners) and core resources. Secondly, the type of alliance has weak significance to alliance performance. Thirdly, there is no evidence to support the relationships between alliance performance and the type of competition. Next, the relationship between alliance performance and the key success factors is not supported. Besides that, the type of alliance has weak influence in the alliance performance while the relationship is controlled by competition. In addition, the weak effect of the relationships of alliance performance and type of alliance is controlled by the key success factors.

The relationship of type of core resources and type of alliance

The empirical test result indicated that there is a very weak relationship between core resources and type of alliance. Firstly, the knowledge-based resource is associated with the functional alliance and joint venture. Secondly, the two dimensions of resources that are knowledge-based and property-based resource are associated with functional alliance.

The result could be explained by past studies research that said that resource-based theory is appropriate for examining strategic alliances because firms essentially use alliances to gain access to other firms' valuable resources. Strategic alliances are preferred when different parties own the critical resources required to pursue an opportunity, and these resources cannot be efficiently obtained through market exchanges or mergers and acquisitions.

However, there is no significant influence of the type of resource and equity alliance that could be due to the formation motive of alliance. The firms may consider other factors when forming alliance rather than based on the resource itself. Another possible reason could be the firm's strategy choice. Past studies mentioned that the alliance is a complementary to the new venture's core competence. Alliances can allow firms to capitalize on their functional expertise and contract for other needed functions. The choice of a governance structure is influenced by the strategic importance of the business strategy, and it is often represented by functional expertise and expenditures.

The relationship of the type of alliance and alliance performance

The hypothesis test result indicated that only joint venture is associated with the subjective-satisfaction of performance. The resource-based theory viewed that the resource of firms can optimize and maximize the value in creating a favorable position. However, the resources alone in the alliance may not be sufficient to achieve competitive advantage and above-normal returns for alliance partners because of complex market conditions. Resources in alliance relationships can be combined, shared, transferred, and exchanged between alliance partners to create integrated and coordinated resources in order to achieve alliance objectives and bring higher performance to alliances. In view of above reasons, this survey test showed only the firms that are involved in joint venture, as a strategic partner, showed positive result in their performance although most of the Malaysian firms favor the formation of functional alliance with their partners.

The other possible reasons of rejecting the significant of alliance performance with equity alliance and functional alliance could be due to:

1. The too widespread classification of alliance performance.

2. The financial indicators that were not considered in this survey
3. The other factors such as commitment, culture factor, trust, value creation, cooperative behaviour and etc. that may need to be considered in the future research.

VI. Limitation of research

- It is difficult to select samples and gather the information from government agency, private organization, and Medias when they do not have much report about the alliance activities.
- The respondent may not understand the concept of coopetition that is rather new to most of the Malaysian firms. This may create some kind of errors when they respond to the survey.
- The measurement of performance is based on the subjective and objective manners. If the firms carry out the alliance activities in a short term, the sales volume or market share as a measurement unit may not be able to reflect the answer truly in the survey. Besides, the firm may reply satisfactory answer subjectively in survey in order to maintain their corporate image or other factors. All these factors can create the distortion to this research.

VII. Suggestion for future research

- Find out the reasons for the functional alliance of Malaysia firms not to be able to reflect the results on their alliance performance
- The future researcher may use the financial data in the times series of cross section analysis to measure the alliance performance instead of the subjective and objective.
- The future researcher may consider analyzing the coopetition factor on the basis of inter-industry instead of the firm itself. This type of analysis may be able to understand the effect of coopetition behavior to the industry or particular industry.

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