Abstract
Interfirm collaborations are an important source of resources and competitive advantage. Few enterprises have all of the crucial resources to compete effectively with competitors in the current dynamic landscape. Hence, enterprises seek access to the resources needed through joint ventures. Since joint venture as one of the equity alliances, this paper is to examine the relationships between joint venture and competitive advantage of the alliance management employing the theoretical framework transaction costs and strategic behavior.

Effective alliance management begins with partnership selecting. Hence, to look further insight into the joint venture as a source of competitive advantage for enterprises, this paper utilize a case study of the Taiwanese fastener enterprises that secure for interfirm collaboration through joint ventures and formed an international marketing company, U-WIN FASTENERS CO., LTD in July 7, 2001. Due to its well-established industrial system and industrial cluster, Taiwanese fastener industry is capable exerting itself production-based competitive advantage. Thus, it has enjoyed an outstanding reputation around the worldwide for “The Kingdom of Fastener” in the total exporting supplies since 1984.

Specifically, in the resulting we can see the fastener enterprises adopt joint ventures it indeed not only minimizes the sum of production and transaction costs but also maximizes profits through improving an enterprise’s competitive position.

Keywords: interfirm collaborations; competitive advantage; joint ventures; equity alliances; fastener enterprise

Introduction
Long before Joint Ventures and other cooperative strategies caught the attention of academic literatures and
organizational scholars in the strategy field. They have studied by industrial economists because of their potential impact on competition (Kogut, 1988; Hennart, 1988; Dyer, Kale and Singh, 2001). Since the global economy is becoming integrated over countries and the rapid shifts in the globalization of markets, interfirm collaboration have increasingly seen alliances as attractive vehicles through which they can grow and expand their scope, and the rate at which alliances have been formed in the last decades (Gulati, 1995; Kogut, 1988; Gulati, 1998; Dyer and Singh, 1998).

Such alliances have been observed encompassing almost any business function and across two or many firms, which agrees to pool their resources to pursue specific market opportunities (Gulati, 1995; Kogut, 1988; Gulati, 1998; Dyer and Singh, 1998). As the joint venture is a formal arrangement of the alliances and a source of competitive advantage for enterprises which not only can’t be easily reach through licensing or market transactions but also the most traditional form of setting up interfirm cooperation, where a new corporate entity is created and the partners share in the equity structure of the new entity in some agreed proportion (Gulati, 1995; Kogut, 1988).

To illustrate our argument, this paper studies five Taiwanese fastener enterprises --chosen because of the availability of data and their joint ventures will probably provide the effective alliance management is fair important for sustainable competitive advantage.

This research is divided into four sections. The first section develops two theories on joint ventures from the perspectives of transaction costs and strategic behavior. The subsequent section views the literature on the concepts, motivations for joint ventures and the relationships between the joint ventures and sustainable competitive advantage. The third section is briefly introducing the case of enterprises and the alliance managements. Finally, this article reveals the alliance outcome of the case enterprise.

The Theoretical Background

Defining the Joint Venture

A joint venture occurs when two or more firms pool a portion of their resources within a common legal firm to pursue specific market opportunity. Consequently, a theory of joint venture must explain why this particular mode of transacting is chosen over such alternatives as acquisition, supply contract, licensing, or arms-length market (Kogut, 1988; Dyer and Singh, 1998).

After interviewing with the executives of the case enterprise, there are two theoretical approaches especially relevant in explaining the motivations and choice of this joint venture. The first approach is derived from the theory of transaction cost economics developed by Williamson (1975, 1985). The second approach focuses on strategic motivations. The former arguments are driven by cost-minimization considerations, whereas, the latter are driven by competitive positioning and the impacts of such positioning on profitability.

Transaction Costs

A transaction cost economics explanation for joint ventures involves the question of how a firm should
organize its boundary activities with other firms. Williamson (1975, 1985) proposes that firms transact by the mode which minimizes the sum of production and transaction costs, he also posits that the principal feature of high transaction costs between arms-length parties is small numbers bargaining in a situation of bilateral governance. Because a joint venture straddles the border of two firms, it differs from contract insofar as collaboration is administered within an organizational hierarchy, that is, it differs from a vertically integrated activity in so far as two firms claim ownership to the residual value and control rights over the use of the assets (Kogut, 1988). Thus, a necessary condition is that the production cost achieved through internal development or acquisition is significantly higher than external sourcing for at least on of the partners.

A transaction cost theory must explain what discriminates a joint venture from a contract and in what transactional situations a joint venture is best suited. Two properties are particularly distinctive: joint ownership (and control) rights and the mutual commitment of resources. The situational characteristics best suited for a joint venture are high uncertainty over specifying and monitoring performance.

**Strategic Behavior**

An alternative explanation for the use of joint ventures stems from theories on how strategic behavior influence the competitive positioning of the firm. Strategic behavior posits firms both transact by the mode that maximizes profits through improving a firm’s competitive position and addresses how competitive positioning influences the asset value of the firm (Kogut, 1988).

Many joint ventures are motivated by strategic behavior to deter entry or erode competitors’ positions (Dyer and Singh, 1998). Thus, a strategic behavior perspective of joint venture choice implies that the selection of partners is made in the context of competitive positioning. Although transaction cost and strategic behavior theories share several commonalities, they differ fundamentally in the objectives attributed to firms as mentioned above. Hence, two important differences in the implications of transaction costs and strategic behavior analysis are the identification of the motives to cooperate and the selection of partners.

**Competitive Advantage Through Joint Venture**

In contemporary strategic management literature, discussions on “hybrid organizational arrangements” include joint ventures, technology licensing and marketing alliance (Contractor & Lorange, 1988). Harrigan (1988) considers joint venture formation to be an important move that potentially provides a firm with a significant source of competitive advantage. Therefore, this paper begins this section by highlighting the competitive advantage potential embedded in interfirm cooperation, and then focuses on value chain analysis of the firm.

Porter’s (1985) value chain framework analyzes value creation at the firm level that identifies the activities of the firm and then studies the economic implications of those activities. The main questions that the value chain framework addresses are as follows: (1) what activities should a firm perform and how? (2)
What is the configuration of the firm’s activities that would enable it to add value to the product and to compete in its industry? Porter defines value as ‘the amount buyers are willing to pay for what a firm provides them.

Value is measured by total revenue ... A firm is profitable if the value it commands exceeds the costs involved in creating the product’ (Porter, 1985). Value can be created by differentiation along every step of the value chain, through activities resulting in products and services which lower buyers’ costs or raise buyers’ performance (Porter, 1985).

Drivers of product differentiation, and hence sources of competitive advantage, are policy choices (what activities to perform and how), linkages (within the value chain or with suppliers and channels), timing (of activities), sharing of activities among business units, learning, and integration (Porter, 1985). Thus, we can fully understand strategic partnerships are the norm in today’s fast-changing global markets, and “No corporation can go it alone” to create value for corporations. Therefore, we concluded that managing alliance is crucial for corporations to create value with interfirm cooperation.

Since joint venture can be viewed as structurally between a market transaction and a hierarchical relationship, it can, therefore, reduce the costs associated negotiating, coordinating, and monitoring interfirm transactions and corporate governance (Williamson, 1979). An alliance that is valuable in the long run need not have a short-term net benefit. The strategic behavior theory of Kogut (1988) and Jarillo (1989) suggests that firms enter cooperative alliance arrangements because of long-term strategic considerations, regardless of immediate cost-benefit considerations.

Alliances’ value-creating potential makes them an important source of competitive advantage (Das & Teng, 2001; Larsson et al., 1998). Currently, effective alliance management begins with selecting the right partner (Ireland, Hitt and Vaidynath, 2002). Thus, the management literature recognizes the potential for organizations to realize competitive advantage through cooperation. Indeed, interfirm collaboration in business has become a cornerstone of global competitiveness, one that all executives must understand and manage with skill.

Methodology

Research Design

This research design uses qualitative approach. The Key purpose of the qualitative approach is to search and research for meaning—why and how they formed an equity alliance. The qualitative research uses a case study strategy. In this case, it allowed the researchers to capture the personal and professional experiences of managers as well as to uncover the key success factors inherent in the alliance process.

To develop an in-depth understanding of the alliance management, this paper not only reviews, summarizes related issue on industry report, customs statistics and literatures gathered from government sectors and academy respectively but also utilizes in depth interviews and conducts an open-ended questionnaire with executives whom indirectly involve the alliance project. In addition, all interviews were
Interview Protocol

The first in-depth interview with the executives of alliance enterprise was conducted on April 14; the second interview occurred three days right after the participant response the questionnaire of April 22. Each interview was conducted over the phone, and it lasted between 60 minutes and 90 minutes. Besides, interviewees were sent a customized, open-ended questionnaire to collect data about the alliance process on April 22. The ten questions were designed by the researchers providing opportunities to prove and elaborate on the executives’ experiences and their ability to provide a comprehensive view of the alliance formation process.

Additional data, including financial records, memoranda and alliance contract between the alliance partners were obtained from archival documents to supplement and confirm the information obtained from the interviews. Meanwhile, after all the interviews were completed, they were transcribed and the forwarded to the respective respondents for interview and approval.

The Characteristics of Taiwan’s Fastener Industry

The Kingdom of Fasteners around the Worldwide

The product of fasteners we also call it “anchor” in Taiwan and Mainland China as well. It most applied to industrial products such as architectures, automobiles and aerodynes. Though it not belongs to sophisticated technology merchandise its usage is the indicator for level of industrial developed.

Taiwan’s fastener industry has developing for over forty years in Taiwan since the first fastener factory – Tsun-Yu was founded in Kangshan area, Kaohsiung in 1949. The significant contributions of fastener industry have created so-called “Economic Miracle” in island-wide Taiwan, and as well enjoyed outstanding reputation around worldwide for “The Kingdom of Fasteners” in total export volume since 1984.

Admittedly, Taiwan has an outstanding performance in fastener industry, this paper inevitably illustrate his marvelous developments, Nevertheless, the rapid shifts in global environment and the increasing trends of globalization recently, most fastener corporations solid recognize no one can secure for supernormal returns with his own under the uncertainty, thus, they align with each other by mutual agreement to improve their competitive position.

Case Study of The Joint Venture

Joint Venture Formation

As the Taiwanese fastener industry was ever formed by Small-Medium-Enterprise, it is severe competition around the island-wide. Specifically most corporations are suffering from the pricing strategy. According to the statistics from government’s report, The United States of America (especially the North
America) is all along being a number one country imports Taiwanese fastener products around the worldwide.

However, Taiwanese fastener corporations make every effort to compete with competitors severely. Indeed, there is no excess profit among the cruel battle of existence. The fastener enterprises fairly recognize alignment to response to foreign customers effectively is the best strategy to maintain theirs competitive advantage. Ultimately, the first alliances of fastener industry come out successfully.

**Alliance Partnership Selection**
The foremost reason that the big five fastener corporations in Taiwan align together for they hold 80% market shares in the item of to the United States. Thus, they make a mutual agreement to form an equity alliance—joint ventures with strategic considerations in 2001. (Table 1) The five shareholders (corporations) comply with the mutual agreement they made in July 2001.

**Alliance Management and Contents of the Agreement**
Alliances’ value-creating potential makes them an important source of competitive advantage (Das & Teng, 2001; Larsson et al., 1998). To look further insight to the alliance agreement, the first prime cooperative strategy is to challenge to the traders align at local America recently. Due to the best item, the mass-market product in North America, five shareholders choose it for their both co-production and co-marketing category. Furthermore, they expect the alignment maintains entirely leading position and concurrently domains both pricing advantage and increases the exporting volume about eighty percentages respectively in island-wide Taiwan. (Table 1)

According to the original agreement, the partners were to share both ownership and work equally. Therefore, regarding the distribution of the orders received, five shareholders (alliance corporations) should comply with the agreements, that is, the ratios of order manufacturing they receiving from the customers of North America, it depends either on the initial equity they invest or by their co-decision making once a year.

As to the selling price, five shareholders are prohibited by themselves to quote customers from the North America as agreement as arranged. In addition, since we can see the agreement they made, we could see, the more co-procurement and bargain power has been arranged, the less will transaction cost occurred.

**Competitive Advantage and Joint Venture**
To examine the competitive advantage through these big five alliances, we look further some statistics which are from internal of the case corporations as the author interviews to the executives responsible for the alliances project (Table 2).

In additions, while the price of steel in the global market is booming this whole year, alliance corporations authentically make marvelous profits in price competitive and net enhance their market competition position through cooperative alignment activities.
They cooperate with partners within the alliance partners the alliance, which they utilize the “U-Win” to seek the business opportunity from North America. Furthermore, they use the mass-production advantage to increase the selling prices and bargain power to reduce the transaction costs and operation risks as well.

### Table 1  An Overview of Case Corporations

<table>
<thead>
<tr>
<th></th>
<th>Sanshin</th>
<th>Chunyu</th>
<th>Jinher</th>
<th>Thread</th>
<th>Shy</th>
<th>U-Win</th>
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</thead>
<tbody>
<tr>
<td>Core Items</td>
<td>Nuts, Bolts</td>
<td>Nuts, Bolts</td>
<td>Screws, Nuts</td>
<td>Square Nuts</td>
<td>Bolts, Nuts</td>
<td>Nuts</td>
</tr>
<tr>
<td>Capital *</td>
<td>59.32</td>
<td>8.95</td>
<td>14.06</td>
<td>4.38</td>
<td>4.69</td>
<td>0.16</td>
</tr>
<tr>
<td>Workforce**</td>
<td>920</td>
<td>450</td>
<td>250</td>
<td>145</td>
<td>150</td>
<td>20</td>
</tr>
<tr>
<td>Equity (to U-Win)</td>
<td>37%</td>
<td>11%</td>
<td>22%</td>
<td>18%</td>
<td>12%</td>
<td>100%</td>
</tr>
<tr>
<td>Sales to North America***</td>
<td>2,154.2</td>
<td>1,057</td>
<td>14,330.6</td>
<td>1,445.3</td>
<td>2,331</td>
<td>2,866.5('02)</td>
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<td></td>
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<td>2,019.1('03)</td>
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Excellence in Performance

**Sanshin**: (1) Supplies 1/3 of the nuts export of Taiwan  
(2) Supplies 1/6 nuts import volume of the USA  
(3) Supplies 1/10 of the world nuts consumption volume

**Chunyu**: (1) "lion brand" products are widely used and accepted throughout Taiwan and the rest of the world.  
(2) Passes certification by the United States' A2LA laboratory and is formally registered as a NIST-approved laboratory.

**Jinher**: (1) Successful fund in the subsidiary of Mainland China.

**U-Win**: (1) Decrease the transaction costs, unit price through joint venture  
(2) Avoid competing with rivals in price, alliance corporations adopt strategic alliance and being a price –leading advantage in the market competition positing.


* Million U.S. dollars  
** Employee (persons)  
*** Ton/year

### Table 2  Value Creation of Case Corporation

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<th>Total Revenue</th>
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<tr>
<td>2001 7/1~12/21</td>
<td>USD 225,746</td>
</tr>
<tr>
<td>2002 1/1~12/31</td>
<td>USD 1,682,846</td>
</tr>
<tr>
<td>2003 1/1~09/30</td>
<td>USD 1,509,378</td>
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Discussion
As using interfirm collaboration as a source of competitive advantage for corporations, alliance management becomes more increasingly important in the dynamic competition landscape. Particular in the alliance partners selection. Once the executives will like to gain an insight “What is the advantage for corporations decide to engage in strategic alliances”? This article attempts to utilize both transaction costs and strategic behavior perspectives to illustrate the relationships between the competitive advantage and joint venture in Taiwanese fastener industry.

As a result, alliance corporations tried to decrease the transaction costs by alignment bargain power to avoid interfirms’ sever competitions in pricing war. Meantime, to maintain their competition positioning and hold the market shares against the rivals, alliance corporations seek the partners by their core competences in production-specific advantages and made a mutual agreement with trust and commitment in value-creating and value appropriation respectively.

Conclusion and Implication
Currently, cooperative agreement is an inevitable and effective strategy for corporations. From a strategic standpoint, while joint venture is a voluntary arrangement between corporations involving equity, exchange, sharing, or co-development of products and service. Admittedly, It not only reduces the operation risks, costs under the complexity and uncertainty but also indeed benefits the alliance corporations to achieve value creating and competitive advantage in industry positioning.

This paper contributes to both academics and practitioners by revealing the facts that joint venture as one of the co-opetition and a crucial role against rival constantly. Practitioners should recognize an effective coordination of partnership selecting and alliance management will be the key successful factor in joint venture.

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