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THE MARKETING ROLE OF INTERNATIONAL JOINT VENTURES IN THE DEVELOPMENT OF PACIFIC ISLAND INDUSTRIAL TUNA FISHERIES

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ABSTRACT

International joint ventures have played a significant role in the recent development of commercial tuna fisheries in the southwest Pacific. This report describes the tuna export marketing activities of Japanese joint venture partners in three enduring joint venture companies in Fiji, the Solomon Islands, and Vanuatu. Tuna export development trends in these island nations suggest that affiliation with Japanese firms has led to dramatic expansion in tuna exports and increased value-added due to additional local processing. Japanese partners have tended to dominate production and marketing management in the joint venture companies and have devoted little attention to training local staff in tuna export marketing skills. Profitability of the ventures has also been less than anticipated.

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INTRODUCTION

Tuna harvesting and processing are becoming increasingly more prominent commercial activities in the southwest Pacific. As a result of unilateral declarations of 200-mile exclusive economic zones, Pacific island nations have acquired a wealth of tuna resources previously exploited largely on an open-access basis by the distant-water fleets of Japan, Korea, Taiwan, and the United States. This resource enclosure is recognized as a mechanism which could likely result in a significant redistribution of resource use rents in favor of island nations (Kent, 1980). The extent to which Pacific island communities actually profit from their new source of wealth depends heavily on whether economically viable arrangements can be forged to harvest and market the fish and fishery products. In this report the contributions that international joint ventures can make to assist island nations in selling tuna in competitive world markets are explored. The focus is on joint venture activities in the southwest Pacific where exports of tuna and tuna products have expanded rapidly over the past two decades.

The organization of this report is as follows. First, the tuna export marketing problems facing small island nations are illuminated. Joint venture arrangements are then identified as a possible means of facilitating large-scale tuna exportation. Because joint ventures are somewhat of an enigma, descriptions are given of alternative ways that joint ventures can be structured. Tuna marketing activities of three different joint venture companies located in Fiji, the Solomon Islands, and Vanuatu, respectively, are then described. Finally, based on the three case studies, conclusions are drawn about the advantages and disadvantages of using joint venture arrangements to stimulate the development of commercial tuna harvesting and processing industries.

TUNA MARKETING BOTTLENECKS AND JOINT VENTURE OPPORTUNITIES

Challenges associated with marketing tuna begin with the nature of the raw material itself. Tuna are warmblooded animals which tend to spoil easily after being landed. Consequently, tuna must generally be sold within a week of capture if they are destined for fresh-fish markets, or they must be otherwise stored and processed in some manner to inhibit product degradation. This is usually accomplished either by storage in ice or iced brine or by blast freezing. Three basic processing methods are employed to further extend shelf life: canning, drying, and smoking.

As a result of relatively expensive preservation requirements, combined with typically limited spoilage prevention capabilities of Pacific island households, regional demand for locally landed albacore (Thunnus alalunga), yellowfin (T. albacores), bluefin (T. maccoyii), bigeye (T. obesus), and skipjack

(Katsuwonus pelamis) tunas is extremely limited. An exacerbating factor is the strong consumer preference for stronger-tasting canned fish such as mackerel. Historically, therefore, per capita tuna consumption in Pacific island nations has been a fraction of that observed for the major tuna-consuming nations of the world. This in part accounts for the fact that Pacific island nations consumed less than 0.04 percent of world tuna supplies in 1979, despite the fact that the combined landings in the region contributed nearly 5 percent to the world total (FAO, 1980). Surplus regional tuna products, amounting to approximately 54,000 metric tons, was exported to markets in Japan, the United States, and the European Economic Community where 90 percent of the world's tuna consumption occurs (Kitson and Hostis, 1983).

Aside from somewhat obvious difficulties of overcoming great trading distances, marketing tuna in the major consuming nations requires expertise in tuna processing. Considerable variation exists in the types of tuna products demanded worldwide. Consumers in the United States and the European Economic Community prefer canned tuna. A selection of can sizes and a variety of different quality tuna packs are demanded. Tuna packed in oil is the market leader in the United States, accounting for 80 percent of annual sales (U.S. Department of Commerce, 1983). The remainder of the U.S. market demand is for water-packed tuna. European consumers, on the other hand, prefer tuna canned with tomato, olive oil, mustard, or brine sauces. The Japanese consume tuna primarily in a raw form (sashimi) or as smoked and spiced dried products (arabushi and katsuobushi). Canned tuna in Japan accounted for less than 10 percent of tuna sales by volume in 1975 (FAO, 1976), but the market demand is growing.

Assuming tuna products can be processed into forms suitable for export, a host of difficulties remains in penetrating foreign markets. In the United States and Japan, elaborate quality control restrictions are imposed on imported tuna products. Ignorance of import regulations can result in delayed deliveries, unplanned handling and storage costs, and rejected shipments. Also relevant to consider are import quotas and tariffs. In the United States, for example, imports of tuna packed in oil are assessed a duty of 35 percent. Water-packed tuna is taxed at a 6 percent rate up to a quota limit of 47.4 metric tons, after which the ad valorem duty becomes 12.5 percent (U.S. Department of Commerce, 1983).

Other barriers arise from the structure and practices of major international corporations involved in world tuna marketing. In the United States tuna marketing is strongly influenced by the practices of H.J. Heinz (Starkist), Ralston Purina (Chicken-of-the-Sea), and Castle and Cooke (Bumble Bee). Together, these three companies accounted for 71 percent of the $1.1 billion canned tuna market in 1980 (Kitson and Hostis, 1983). Similarly, the Japanese tuna market is dominated by a handful of firms which are closely affiliated with economically

powerful trading and fishing companies. The four largest tuna marketing firms reportedly control an estimated 78 percent of the Japanese fresh and processed tuna markets (Kitson and Hostis, 1983).

In light of the challenges of selling tuna in distant markets, Pacific island nations have explored different types of arrangements to overcome marketing constraints. One avenue, typically called licensing or "fee fishing," effectively places all marketing responsibilities (and therefore marketing margins) in the hands of distant-water fishing companies. Although licensing arrangements may be convenient and relatively risk-free from the point of view of island communities, their effectiveness in accomplishing a host nation's long-term fisheries development objectives has been called into question (Kent, 1980; Aprieto, 1981; Martin et al., 1981). Nevertheless, fee fishing arrangements are routinely adopted (Ridings, 1983).

An alternative solution is to establish joint ventures with specialized tuna marketing firms. The joint venture option has been scrutinized from many angles and defined in different ways throughout the literature (Martin et al., 1981; Kaczynski and LeVieil, 1980; Hamlisch, 1974; Friedman and Kalmanoff, 1961). Unfortunately, because the concept is a vague and broad one, there has been no agreement on a general definition. Nevertheless, a consensus exists that a joint venture constitutes a formalized collaborative effort by any number of contributing members in a mutually beneficial, risk-sharing business partnership. Such associations arise out of disparities in the capacities of the various partners. In the case of Pacific tuna fishing, obvious disparities in endowments exist between resource-owning nations, on the one hand, and transnational corporations that wish to harvest and sell tuna in international markets, on the other hand. Joint ventures therefore arise as a means of exchanging access to tuna resources in return for access to export markets.

It is generally agreed that, to be an international joint venture, at least two of the collaborating parties must be of different nationalities. A taxonomy of various joint venture arrangements is depicted in Figure 1, following a scheme outlined by Tomlinson and Vertinsky (1975). Initially, ventures can be broadly classified according to the residency of partners. A national joint venture is an association between two or more partners from the same country. Foreign international joint venture entails an association between partners of different nationalities, with neither partner representing the host nation. International joint venture is a partnership between foreign and local interests. A fourth family is host government-foreign joint venture, common to Oceania, where a host government is involved as an active participant in the venture.

Each of the four basic joint venture families can be divided into two sub-classes: equity and contractual joint ventures. In

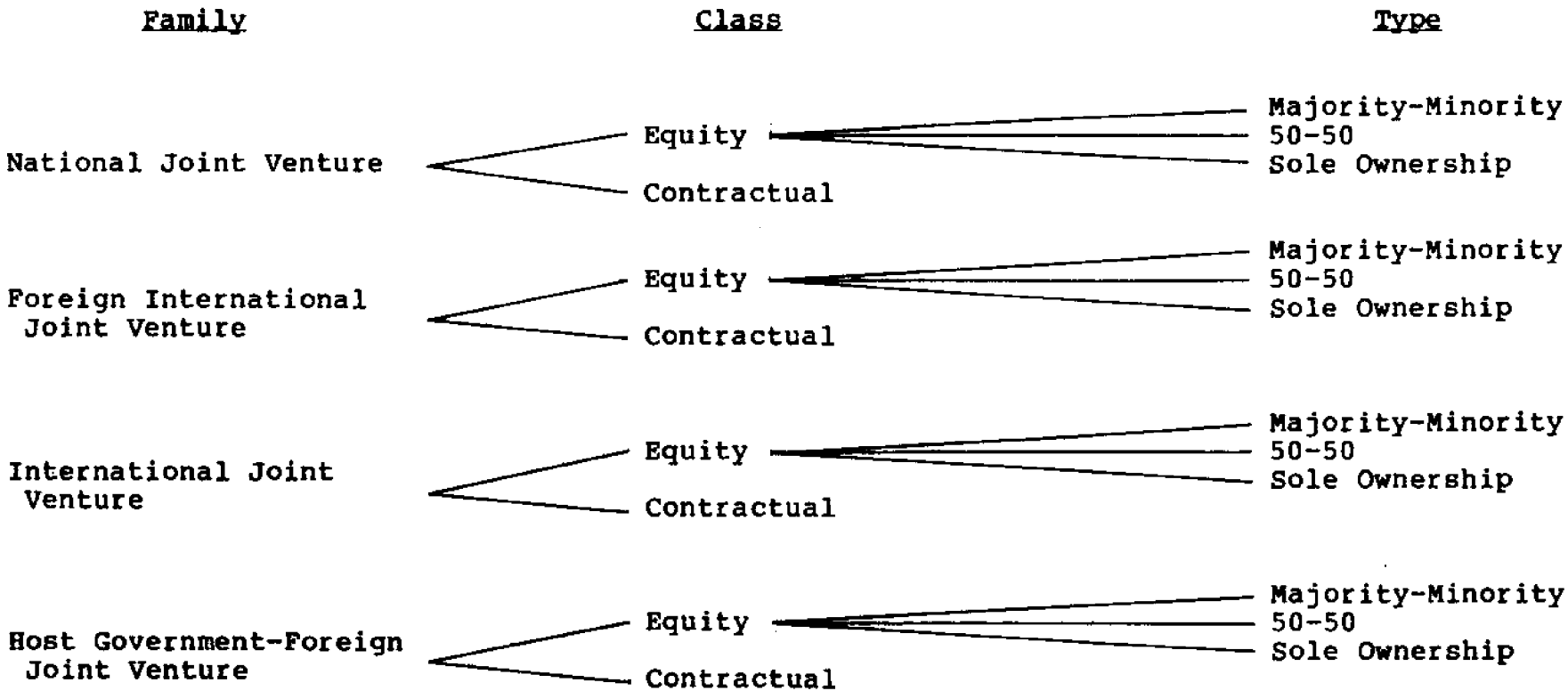

Figure 1. A taxonomy of joint ventures

an equity venture, each participating party possesses a share in a corporation or partnership which is established as a medium through which the joint venture operates. There is generally joint management and sharing of profits and risks by partners. The newly formed joint venture company has a separate legal identity. A contractual joint venture is usually a short-term, single objective association between partners governed by a contract and involves neither investment nor profit sharing by participants.

The taxonomy of joint ventures is further extended to include extent of equity ownership by various partners. Joint ventures with a majority-minority arrangement require one partner, whether it be domestic or foreign, to own over 50 percent of the business equity. A 50-50 joint venture entails equal equity participation. Sole ownership ventures are associations in which one partner owns 100 percent of the equity, with the other partner possibly contributing specialized skills, patents, or "goodwill" in return for an agreed upon share of the profits.

The rapid expansion of joint venture activity by coastal nations since the establishment of exclusive economic zones has been reported by Kaczynski (1981), Kaczynski and LeVieil (1980), and Crutchfield et al. (1975), among others. Reportedly, at least a doubling of the number of fishing joint ventures to over 500 occurred worldwide between 1970 and 1980 (Kaczynski, 1981). Today, the ventures are globally distributed and include harvesting, processing, storage, transshipment, and distribution activities for numerous fish and fishery products.

Acquiring access to marketing skills of experienced transnational corporations is an incentive factor for host nations contemplating joint venture involvement. As Walmsley (1982) put it, a joint venture is "a deliberate alliance of resources of two independent organizations in order to mutually improve their market growth potential" (p. 4). This view of joint ventures as exporting marketing institutions is commonly shared (Helleiner, 1973; Committee for Economic Development, 1981). For example, in arguing for increased Canadian involvement in joint ventures, Tomlinson and Brown (1979) stated that joint ventures "provide virtually guaranteed access to markets -- and with costs which permit competitive price levels" (p. 258). Similarly, mention is made of the fact that joint ventures in the United States have created opportunities to harvest pollack, squid, and other underutilized species where domestic markets are weak and/or domestic processing costs are excessively high (Kaczynski, 1979, 1984). The existence of export market potential is an incentive to both parties. Crutchfield et al. (1975) pointed out that the establishment of joint ventures is facilitated when a common shared goal is to exploit promising export markets.

CHARACTERISTICS OF INTERNATIONAL JOINT VENTURES IN PACIFIC TUNA FISHERIES

Ridings (1983) identified 17 tuna joint ventures active in the southwest Pacific. Out of this group, only eight are international joint ventures following the taxonomy given in Figure 1. The other nine are locally registered companies wholly owned by foreign interests. Included in the latter group, for example, are the two canneries in American Samoa which are owned entirely by Van Camp and Starkist. Of the eight international joint ventures, all involve equity participation by Japanese firms and half involve local governments as active participants (Table 1).

TABLE 1. INTERNATIONAL TUNA JOINT VENTURES OPERATING IN PACIFIC ISLAND LOCALITIES*

Host Locality	Foreign Involvement	Activities	Local Government Partner
Fiji	Japan	Freezing Canning	Yes
French Polynesia	Japan	Fishing	No
Federated States of Micronesia (2 ventures)	Japan	Freezing Transshipment	No
Nauru	Japan	Freezing Processing	Yes
Papua New Guinea	Japan	Fishing Freezing Transshipment	No
Solomon Islands	Japan	Fishing Freezing Canning Smoking	Yes
Vanuatu	Japan United States	Freezing Transshipment	Yes

Sources: Ridings (1983); Kaczynski and LeVieil (1980)

*Does not include Australia and New Zealand hosted ventures or ventures wholly owned by foreign interests

Following Kotler (1984), if one takes a broad view of marketing to encompass product processing, pricing, promotion, and distribution, then it can be said that all of the joint ventures listed on Table 1 are engaged in tuna marketing. Activities range from collection and freezing of fish (in the round) for transshipment to U.S. or Japanese buyers to the operation of smoking plants and tuna canneries. Heavy dependence is placed on Japanese firms to provide processing and marketing management skills. In the cases of freezing and transshipment ventures, Japanese firms assume responsibility for (1) purchasing and maintaining freezing equipment, (2) determining fish purchase and delivery schedules, and (3) contracting for export sales. Input of Japanese expertise is even more evident in the ventures which include shore-based processing. A summary description of the marketing responsibilities undertaken by Japanese firms in these ventures is given in Table 2.

Principal Japanese Joint Venture Participants

Only a handful of Japanese firms have formally participated in tuna-related joint ventures in the southwest Pacific. More prominent ones include C. Itoh and Co., Ltd. (Itohchu Shoji), Mitsui and Co., Ltd. (Mitsui Bussan Kaisha), Taiyo Fishing Co., Ltd. (Taiyo Gyogyo), and Nichiro Fishing Co., Ltd. (Nichiro Gyogyo). These firms also happen to be involved in most of the Japanese-U.S. joint ventures in fisheries (Sullivan and Huggelund, 1979).

At present only C. Itoh and Co., Ltd., Mitsui and Co., Ltd., and Taiyo Fishing Co., Ltd. are engaged in Pacific island international joint ventures. Nichiro Fishing Co., Ltd. sold its stock in a Fiji joint venture in 1981. As shown in Table 3, all are very large firms in terms of gross annual turnover, assets, and number of employees. Furthermore, all are publicly owned corporations, with diversified equity holdings in subsidiaries both in Japan and abroad. All maintain at least a rudimentary global network of branch or subsidiary offices. Apart from these similarities, however, a basic distinction can be made between those that are trading companies and those that are fishing companies.

In Japanese industrial organization parlance, C. Itoh and Co., Ltd. and Mitsui and Co., Ltd. (hereinafter referred to as C. Itoh and Mitsui, respectively) are called general trading companies, or "sogo shosha." Japanese general trading companies are very much involved with the establishment and promotion of fishery joint ventures around the world (Emori, 1973; Sullivan and Huggelund, 1979).

In most cases the general trading companies are corporate reincarnations of family holding companies, or "zaibatsu," which together held a tight rein on internal and external trade in pre-World War II Japan. Mitsui's origins, for example, date back 300

TABLE 2. TUNA MARKETING RESPONSIBILITIES UNDERTAKEN BY JAPANESE FIRMS INVOLVED IN INTERNATIONAL JOINT VENTURE

Determination of Product Characteristics	Product Pricing	Product Sales	Physical Distribution
Select tuna species to buy or harvest	Monitor market prices	Identify buyers	Arrange transportation, insurance, storage
Control quality	Set prices for product line	Contract for sales deliveries	Coordinate deliveries with buyers
Choose sizes, grade of canned or smoked tuna products	Review and adjust prices as needed	Arrange for payments and credit terms	Optimize inventory quantities
Select processing alternative (frozen vs canned vs smoked)			

TABLE 3. CHARACTERISTICS OF SELECTED JAPANESE FIRMS WITH JOINT VENTURE INTERESTS IN PACIFIC ISLAND FISHERIES

Company	Annual Sales* (US$ millions)	Assets* (US$ millions)	Percent of Assets Overseas	Number of Branch Offices Outside of Japan	Number of Employees	Profit Rate on Sales+ (%)
C. Itoh and Co., Ltd.	56,773	12,815	11	85	7,778	4.1
Mitsui and Co., Ltd.	64,306	19,669	14	150	9,735	5.2
Taiyo Fishing Co., Ltd	2,730	1,375	—§	25#	4,911	1.8
Nichiro Fishing Co., Ltd	1,035	557	—§	17#	2,526	2.5

Source: The Oriental Economist (1984) and Dodwell Marketing Consultant (1982)

*Sales as of March 31, 1983; assets as of November 1982. Exchange rate used is Y220=$US1
+Ratio of Annual Operating Profits to Annual Sales
§Data not available
#Subsidiaries located abroad

years with its initial business in retailing and finance. Under their present corporate structure with public stockholders, the general trading companies are still characterized by their promotion and creation of trade flows (JETRO, 1976). The primary functions the companies perform are as follows: (1) act as trade intermediaries and develop new trading opportunities; (2) provide financial assistance to businesses in the form of trade credits, equity investment, and direct loans; (3) create trade incentives by absorbing investment risk to client firms; and (4) participate in the development of natural resources.

Performance of these services is facilitated by the trading companies' massive size and their ability to achieve both economies of scale and economies of scope (Panzar and Willig, 1981) in product distribution. Mention is often made of the fact that general trading companies maintain extensive international networks of foreign branches worldwide. Such networks serve as intelligence-gathering communication systems, relaying vital economic and other market information to corporate centers, where it is in turn interpreted and disseminated back to trade outposts. In addition, the trading companies have access to huge financial reserves, both internal and external, that are used to lubricate trade flows by credit extension. Routinely, trading companies pay suppliers in advance for manufactured goods and then accept promissary notes from buyers who are short on cash (Emori, 1973).

As a result of this specialization in trade, the Japanese import-export flow is largely controlled by 6,000 trading companies (JETRO, 1976). The largest nine firms (which include C. Itoh and Mitsui) handle about 55 percent of Japan's external trade. In 1981, this amounted to $66 billion in exports and $80 billion in imports (Dodwell Marketing Consultants, 1982).

Competition from vertically integrated manufacturing conglomerates has stimulated increased direct investment by trading companies in diversified subsidiaries, both in Japan and abroad (Emori, 1973). Today, therefore, general trading companies not only trade other firms' goods, but are affiliated with a family of smaller chemical, manufacturing, transportation, petroleum, and other companies through equity or loan participation. In return for guaranteed supplies and purchase quantities, the trading companies provide complete marketing services and managerial consultation (Yoshino, 1971).

In large part, this vertical integration and diversification strategy explains why direct loans and equity participation in foreign firms by Japanese trading companies reached its highest historic level in the 1980s. In 1981, Mitsui had a total of $1.1 billion invested in 280 overseas affiliates, and C. Itoh had an investment of $539 million in 222 foreign affiliates (The Oriental Economist, 1984).

According to Tsurumi (1976), a pattern exists in foreign investment strategies followed by trading companies. Typically,

trading companies join with small- to medium-sized Japanese manufacturing companies as partners in overseas ventures. In 1972, 50 percent of the Japanese foreign subsidiaries came into existence as a result of a joint venture between a manufacturing company and at least one trading company (Tsurumi, 1976). In this arrangement, the manufacturing company relegates distribution responsibilities to the trading company. The manufacturer can thereby operate more competitively, even with small production runs. The trading company in turn provides capital backing from internal sources or through its banking connection. It also contracts for sales, arranges for transportation, and makes agreements with the host nation. An arrangement such as this prevailed in Fiji where C. Itoh cooperated with Nichiro Fishing Co., Ltd. to establish the Pacific Fishing Company, Ltd. (PAFCO) in 1963.

Large fishing companies in Japan, such as Taiyo Fishing Co., Ltd. and Nichiro Fishing Co., Ltd. (hereinafter referred to as Taiyo and Nichiro, respectively), are fully diversified in all aspects of fishing from product harvesting to processing, transportation, storage, and wholesaling. Most handle a wide range of fresh (crab, salmon, tuna, trout, etc.) and processed (dried, canned, and smoked) fish and shellfish products for human consumption and industrial uses. Japanese fishing companies have historically taken a keen interest in direct investment in Pacific tuna fisheries development. As early as 1917, Japanese tuna fishing companies operated out of Singapore (Kent, 1980).

Japanese fishing companies have been highly effective in establishing joint venture fishing arrangements. The Japanese are credited with establishing one of the first fisheries joint ventures in 1954. The venture was located in what was then Burma, and Taiyo (today the world's largest fishing company in terms of annual sales) was the Japanese partner. In 1981, Taiyo had 25 affiliates worldwide and Nichiro had 17 foreign subsidiaries (The Oriental Economist, 1984). Increasingly, the large fishing companies have assumed marketing responsibilities for their overseas affiliates (Sullivan and Huggelund, 1979). The need, therefore, to be in partnership with a trading company has declined. Increased marketing sophistication and an interest in manufacturing under a company brand label ("Taiyo" fish products, for example) have resulted in large fishing companies operating something like trading companies specializing in fish products.

Three Case Studies of Joint Ventures Involving Japanese Participants

Case studies of three different joint venture companies are presented below. Tuna marketing activities are described for (1) the Pacific Fishing Company, Ltd. in Fiji; (2) the Solomon-Taiyo, Ltd. in the Solomon Islands; and (3) the South Pacific Fishing Co. in Vanuatu. All dollar amounts are expressed in current U.S. dollars.

Case I: The Pacific Fishing Company, Ltd., Fiji

Fiji's experience with joint ventures began in 1963 with the licensing of a fish-freezing and transshipment company. The firm, Pacific Fishing Company, Ltd., was organized as a joint venture between several Japanese firms and a small group of Fijian private investors. Equity ownership was largely subscribed to by three Japanese transnational firms. The major shareholder, C. Itoh, owned 33.3 percent of the newly formed PAFCO, whereas Nichiro and Banno of Osaka both subscribed to 25 percent equity ownership each. The remaining 16.7 percent equity ownership was subscribed to locally.

PAFCO operations commenced in 1964, serving as a freezing and cold-storage facility for chartered Japanese, Korean, and Taiwanese longlining tuna vessels. The major tuna species unloaded at PAFCO were albacore, yellowfin, and bigeye. Under contract, the catch was sold to PAFCO, frozen or chilled, and then consigned to C. Itoh. Final destinations were markets in the United States and Japan. The impact of PAFCO operations on Fiji's export trade in fish products was phenomenal. In 1963, Fiji exported $18,000 in fish products. Within one year, the volume increased to $214,000 (Table 4). Between 1964 and 1972, PAFCO exports grew, reaching over $8 million in the latter year.

In November of 1974, the government of Fiji and C. Itoh signed a 10-year agreement that restructured the ownership of PAFCO. The government became part-owner in recognition of its granting PAFCO sole rights to process and export tuna caught in Fiji waters. The agreement stipulated that PAFCO would build a 60-metric-ton-per-day tuna processing cannery and a fish meal plant according to a phased construction schedule. Since 1974, PAFCO has largely confined its activities to satisfying the following objectives: (1) to process and can tuna for local and overseas markets; (2) to purchase and sell raw fish; and (3) to sell supplies and equipment to fishing boats.

By far, the bulk (90 percent) of the cannery output is sold as solid-packed light meat to export markets in Commonwealth nations, including the United Kingdom, Australia, New Zealand, and Canada. Special trade concessions granted to Fiji in the form of import tariff reductions have favored exportation to these markets as opposed to U.S. markets. PAFCO also sold approximately 6,000 cases of flake tuna in local markets under its Sunbell label in 1982. A small fraction of the total landings (albacore, billfish, and mahimahi) are sold in frozen form to markets in Tokyo where it is eventually canned for export and for consumption by Japanese households (Kitson and Hostis, 1983). In addition, PAFCO sells dried fins from sharks landed incidentally by chartered vessels.

Gross turnover by PAFCO rose dramatically since large-scale cannery operations commenced in 1976. Even with recent depressed tuna market conditions, sales were 730 percent higher in 1982

TABLE 4. FIJI'S EXPORTS OF FISH AND FISHERY PRODUCTS, 1958-81

Year	Fresh and Frozen		Smoked, Dried, or Salted		Canned or Otherwise Preserved	
	(MT)	(US$)	(MT)	(US$)	(MT)	(US$)
1958	--*	3,000	--	--	--	--
1959	--	--	--	--	--	--
1960	--	--	--	--	--	--
1961	--	11,000	--	--	--	9,000
1962	--	13,000	--	--	--	12,000
1963	--	13,000	--	--	--	5,000
1964	--	207,000	--	--	--	7,000
1965	3,700	1,031,000	--	--	--	5,000
1966	6,200	1,955,000	--	--	--	5,000
1967	6,000	2,603,000	--	--	--	--
1968	5,500	2,140,000	--	--	--	--
1969	8,600	3,948,000	--	2,000	100	55,000
1970	7,900	4,791,000	--	20,000	400	324,000
1971	8,600	5,791,000	--	--	100	164,000
1972	10,800	8,280,000	--	--	--	12,000
1973	6,800	6,042,000	--	3,000	300	285,000
1974	3,600	3,172,000	100	184,000	600	600,000
1975	2,362	1,622,000	3	6,000	395	407,000
1976	2,362	1,479,000	17	53,000	456	1,117,000
1977	3,104	4,203,000	243	991,000	2,380	4,624,000
1978	4,297	6,285,000	76	432,000	4,075	10,424,000
1979	1,349	1,583,000	47	337,000	5,734	14,124,000
1980	3,583	7,282,000	57	441,000	3,561	10,741,000
1981+	3,583	7,282,000	57	441,000	5,440	16,328,000

Sources: United Nations Food and Agriculture Organization (FAO), 1963 Yearbook of Fisheries Statistics, Vol. 17; FAO 1964 Yearbook of Fisheries Statistics, Vol. 19; FAO 1965 Yearbook of Fisheries Statistics, Vol. 21; FAO 1969 Yearbook of Fisheries Statistics, Vol. 29; FAO 1972 Yearbook of Fisheries Statistics, Vol. 35; FAO 1974 Yearbook of Fisheries Statistics, Vol. 39; FAO 1977 Yearbook of Fisheries Statistics, Vol. 44; FAO 1978 Yearbook of Fisheries Statistics, Vol. 47; FAO 1981 Yearbook of Fisheries Statistics, Vol. 53

*Zero, nil, or none reported
+Preliminary data

than during the pre-cannery days prior to 1974. Steady sales hikes are largely the result of successful market penetration and product positioning efforts by C. Itoh staff working for PAFCO. In 1980, PAFCO controlled an estimated 9 percent (2,566 metric tons) of the United Kingdom canned tuna import market. In 1981, it supplied 16 percent (1,599 metric tons) of the Canadian canned tuna imports (Kitson and Hostis, 1983).

C. Itoh has assumed almost fully the management, export, domestic marketing, and transshipment responsibilities of the PAFCO operation. This is a result of its expertise, provisions of the PAFCO agreement, and its majority stockholder position. In terms of management, four out of six members of the PAFCO Board of Directors are C. Itoh employees. Sales management is entrusted to the managing director, who resides in Japan and operates out of C. Itoh headquarters in Tokyo. Day-to-day management of PAFCO operations is the responsibility of a handful C. Itoh employees who are positioned in top- and middle-level management niches. Aside from providing key organizational and personnel management skills relating to raw material procurement and canning production, C. Itoh is largely responsible for marketing management. This includes making all decisions on product mix, production timing, markets to be penetrated, and product distribution.

C. Itoh distributes PAFCO products in several ways. For private-labeled canned tuna, it usually acts as a consignee, arranging transportation, insurance, and storage. For this service, it recieves a 2.5 to 3 percent commission. Often products consigned to C. Itoh are sold to its subsidiaries, such as C. Itoh of America, Inc. or C. Itoh of Vancouver, Ltd. Occasionally, when PAFCO cannot supply enough volume on its own to meet an order, C. Itoh will purchase additional supplies from several other producers to assemble a large enough quantity to fill the order. Frozen albacore tuna, bigeye tuna, black marlin, white marlin, swordfish, and Pacific marlin are often bought directly by C. Itoh and transported to Japan where they are either canned in C. Itoh's own cannery or distributed to other processors. A similar trade occurs in dried shark fins and skipjack loins.

Case II: Solomon-Taiyo, Ltd., Solomon Islands

The Solomon-Taiyo, Ltd. (STL) joint venture was licensed to operate in 1972, following 15 months of tuna stock assessment by Taiyo. STL was structured as a joint venture between the government of what was then the British Protectorate of the Solomon Islands and Taiyo. The company was formed with $784,000 in authorized share capital, of which Taiyo eventually subscribed to 75 percent. The government was allocated 25 percent in consideration of its granting STL exclusive rights to fish in Solomon Island territorial seas and to export tuna and tuna products. The duration of the joint venture agreement was set at 10 years, subject to renewal. In 1981, the contract was revised to give

the government 50 percent equity and then extended for 10 years (Meltzoff and LiPuma, 1983).

Under the guidelines of the 1972 agreement, STL built a 600-metric ton cold-storage facility, ice plant, brine freezer, 600-cases-per-day cannery, and an arabushi plant at Tulugi. Taiyo provided long-term loans to finance these shore-based facilities which were completed in 1973. Skipjack tuna, harvested by chartered vessels, was the target species for processing and export. In 1976, a freezing plant and cold-storage plant began operations at Noro. Together with the Tulugi station, nearly 18,000 metric tons of skipjack were processed annually by 1978. This represented a dramatic increase from the zero catch levels which existed 6 years previously.

Under terms of the 1972 and 1981 agreements, Taiyo is granted exclusive rights to export tuna and tuna-like species, in all forms, from the Solomon Islands. The bulk of the fresh and frozen tuna exports shown in Table 5 is shipped to the Van Camp cannery in American Samoa. Canned light meat tuna is shipped to Great Britain, where STL tuna accounted for 7.5 percent of the total canned tuna market in 1980 (Kitson and Hostis, 1983). The

TABLE 5. SOLOMON ISLANDS' EXPORTS OF FISH AND FISHERY PRODUCTS, 1971-81

Year	Fresh and Frozen		Smoked, Dried, or Salted		Canned or Otherwise Preserved	
	(MT)	(US$)	(MT)	(US$)	(MT)	(US$)
1971	4,165	1,238,000	--*	--	--	--
1972	12,138	3,584,000	--	--	--	--
1973	5,091	1,539,000	--	--	--	--
1974	8,297	2,834,000	69	116,000	829	767,000
1975	3,647	1,271,000	162	319,000	891	1,188,000
1976	12,098	5,965,000	140	225,000	671	1,195,000
1977	9,773	6,375,000	106	388,000	670	1,520,000
1978	14,518	10,262,142	223	736,000	666	1,581,000
1979	21,918	15,255,601	142	438,000	761	1,906,000
1980	19,000	13,224,000	918	4,526,181	2,162	8,734,804
1981	23,246	16,179,216	848	4,179,427	2,060	7,048,290

Sources: United Nations Food and Agriculture Organization (FAO), 1974 Yearbook of Fisheries Statistics, Vol. 39; FAO 1977 Yearbook of Fisheries Statistics, Vol. 44; FAO 1978 Yearbook of Fisheries Statistics, Vol. 47; FAO 1981 Yearbook of Fisheries Statistics, Vol. 53

*Zero, nil, or none reported

bulk is sold under private labels. Small amounts are also shipped to Japan where they are presumably re-exported to the United States and markets in Europe. Dark meat tuna, which is not exported, is marketed locally under a separate label. Arabushi is marketed exclusively in Japan.

Taiyo is largely responsible for the sizable growth in exports discussed previously. As in the case of PAFCO, all line executives of STL are Japanese expatriates. Before the revised 1981 agreement, Taiyo also controlled the board of directors through its majority voting strength. This has since changed. Currently, there are six board members, of which the government appoints three, including the chairman. In the day-to-day operations, however, Taiyo employees make binding decisions concerning product quality, product mix, product shipping, and production timing (Meltzoff and LiPuma, 1983). By contract, Taiyo is the sole exporting agent for STL products. For this basic marketing service, Taiyo receives a sales commission of 5 percent on canned tuna and 3 percent on frozen tuna.

Case III: South Pacific Fishing Co., Vanuatu

The South Pacific Fishing Co. (SPFC) was licensed to operate as a fishing, freezing, and transshipment base for a fleet of about 20 tuna longliners back in 1954. Construction of a 1,300-metric ton freezing plant and a 20-metric-ton-per-day ice plant began 2 years later, and actual operations commenced in 1957. The objectives of SPFC were: (1) to buy and sell frozen tuna; (2) to supply chartered fishing boats with fuel, oil, food, and fishing gear; and (3) to inspect and repair fishing boats. A detailed discussion of SPFC early operations is found in Leaney and Lea (1967) and Wilson (1966).

The company was structured as a joint venture between four companies, including two Japanese companies (Mitsui and Taiheyo Suisan Daisha), a U.S. firm (Washington Fish and Oyster Company), and a local firm. Mitsui was, and continues to be, the major stockholder. Sometime around 1981, the government of Vanuatu was granted 10 percent ownership of the company in return for unspecified export tariff reductions.

Fishing and freezing activities expanded briskly. Within one year of commencing actual operations, Vanuatu (formally New Hebrides) had a million dollar export trade in fishery products. By 1968, exports of frozen yellowfin and albacore tunas had doubled (Table 6). Tuna exports reached a high during the tuna longline heydays of the early 1970s. During that time, the New Hebrides government was earning an estimated $400,000 annually in tuna export tariffs, a significant amount of public revenue. However, a drop in exports occurred during 1981 because of an extended boycott. The bulk of tuna exports has historically been sold to buyers in the United States. Wilson (1966) reported that Washington Fish and Oyster Company (the U.S. partner) was a regular buyer of frozen tuna. It is uncertain which U.S. canneries

TABLE 6. VANUATU'S EXPORTS OF FISH AND FISHERY PRODUCTS, 1958-81

Year	Fresh and Frozen		Smoked, Dried, or Salted		Canned or Otherwise Preserved	
	(MT)	(US$)*	(MT)	(US$)	(MT)	(US$)
1958	3,509	1,225,266	---+	--	--	--
1959	3,710	1,153,417	--	--	--	--
1960	4,133	1,180,366	--	--	--	--
1961	3,673	1,195,756	--	--	--	--
1962	4,289	1,501,110	--	--	--	--
1963	2,975	987,910	--	--	--	--
1964	2,873	984,061	--	--	--	--
1965	3,366	1,259,906	--	--	--	--
1966	6,564	3,068,936	--	--	--	--
1967	5,977	2,616,037	--	--	--	--
1968	6,627	3,075,351	--	--	--	--
1969	7,988	3,981,149	--	--	--	--
1970	9,216	5,986,478	--	--	--	--
1971	13,346	8,354,896	--	--	--	--
1972	15,598	11,527,755	--	--	--	--
1973	15,131	11,403,304	--	--	--	--
1974	9,824	8,175,276	--	--	--	--
1975	5,218	3,310,140	--	--	--	--
1976	6,091	6,663,132	--	--	--	--
1977	9,997	13,260,000	--	--	--	--
1978	9,182	13,161,692	--	--	--	--
1979	7,724	12,020,742	--	--	--	--
1980	8,300	15,255,715	--	--	--	--
1981	4,840	9,559,597	--	--	--	--

Source: Government of Vanuatu, Office of National Planning and Statistics, Vanuatu Statistical Bulletin, 1982

*Exchange rates used to calculate values in US$ are as follows: 1958-1976 ($1.283 = 100 vatu); 1977 ($1.250 = 100 vatu); 1978 ($1.354 = 100 vatu); 1979 ($1.446 = 100 vatu); 1980 ($1.157 = 100 vatu); 1981 ($1.052 = 100 vatu)
+Zero, nil, or none reported

are currently purchasing Vanuatu tuna. A likely destination is Mitsui's Neptune cannery in Puerto Rico. Also, lesser quality tuna, along with dried shark fins, is marketed by Mitsui in Japan.

Mitsui plays a similar export marketing management role for SPFC as C. Itoh does for PAFCO in Fiji. An estimated 40 Mitsui

employees reside in Vanuatu. In the marketing area, their responsibility is to schedule tuna purchases and sales, monitor prices, and provide technical guidance on freezing technology and product quality. Although SPFC is geared to produce a frozen tuna product, Mitsui has in the past experimented with fish smoking and drying. In the early 1960s, a small tuna smoking plant was built and 67 metric tons of the smoked product were exported to Japan (Wilson, 1966). This operation probably would have continued, but the factory was destroyed by fire.

Mitsui has also recently been investigating the feasibility of using SPFC freezing facilities to export frozen beef that is produced locally.

CONCLUSIONS

There is probably little disagreement that joint ventures have augmented Pacific island tuna export earnings. This is clearly evident for Fiji, the Solomon Islands, and Vanuatu where formalized agreements with Japanese transnationals over the past three decades have created entire export industries where none existed. Two factors have contributed to higher tuna export earnings: additional tuna throughput and increased average value-added per metric ton of tuna landed. In terms of landings, Fiji and the Solomon Islands have experienced significant increases since joint venture canning operations began. Whether canned or not, increased physical tuna throughput entails additional marketing responsibility. Either new export and domestic markets must be tapped, or existing markets such as U.S. canneries in American Samoa must be further developed. Aside from simply selling more tuna and tuna products, joint ventures have tended to raise the value-added per metric ton of tuna landed. More sophisticated local processing is a key factor. Fiji's experience is illustrative. As a result of C. Itoh's marketing efforts to expand export product forms and export destinations, Fiji experienced a near doubling of the unit value of tuna landed locally. In 1973, about 12,000 metric tons of tuna were exported in frozen form at a value of $708 per metric ton. By comparison, in 1981, approximately 8,000 metric tons were exported at a value of $1,169 per metric ton in canned form. This represents a nominal increase of 165 percent per metric ton, or an inflation-adjusted increase of approximately 90 percent per metric ton.

To what extent are Japanese transnational corporations responsible for higher tuna export volume and increased average value-added per metric ton of tuna landed? For Fiji, C. Itoh is largely responsible because it retains almost complete control of marketing management decisionmaking. A similar situation reportedly exists in the Solomon-Taiyo joint venture in the Solomon Islands (Meltzoff and LiPuma, 1983). Historically, it has been C. Itoh's and Taiyo's responsibility to select what type and how much canned and frozen tuna to produce and where to distribute the product. Through affiliates in Japan, they have opened the

smoked and frozen tuna markets to Pacific island imports. With their business connections in Europe, they have assisted Fiji and the Solomon Islands in obtaining preferential trade access to European Economic Community member countries. They have also managed to produce canned products of consistent quality and in sufficient quantity to satisfy the stringent import requirements of large wholesale food distributors.

Despite these apparent successes, criticism can perhaps be leveled against the Japanese joint venture participants on the lack of attention paid to training local marketing managers. As noted in the case study of Fiji, Japanese expatriates occupy all senior-level management posts. A similar situation prevails in the Solomon Islands where Japanese managers from Taiyo occupy all upper- and middle-level management positions (Meltzoff and LiPuma, 1983). Since marketing decisionmaking in these ventures is conducted entirely by Japanese employees, there is little expectation that, in the short term, island nations can assume significant marketing responsibilities.

In those instances where joint venture marketing activities have not fully yielded desired outcomes, a review of contract terms and marketing practices may be called for. Without delving into the specifics of contracting terms and conditions, some concluding comments can be offered about joint venture marketing management policy issues.

The first issue relates to the tradeoff between marketing control and local value-added to tuna landings. Evidence assembled here suggests that tuna can be marketed in a variety of processed and unprocessed forms. Incentives to export fully processed tuna products are great due to local income and employment generation benefits. However, selling processed tuna requires additional, and often costly, marketing tasks to be performed, including product processing. Performance of complex marketing tasks is currently beyond the capabilities of island nations, which is the motivation for joint venture involvement in the first place. As more marketing tasks are undertaken by foreign firms, a host nation's ability to control the marketing process and monitor sales performance diminishes. As least this has been the experience in Fiji and the Solomon Islands. Two reasons for this can be given. First, because the availability of local firms capable of processing and selling large quantities of tuna is limited, foreign partners are in a position of strength to negotiate agreements that provide them with almost complete marketing autonomy. Second, the cost of monitoring day-to-day activities of joint venture overseas partners can be high, and suitably trained local personnel may not be available. Through a combination of these factors, the problem arises of finding a balance between maintaining control over market management, on the one hand, and utilizing the services of expatriate marketing experts to increase tuna harvesting rents, on the other.

If a satisfactory solution to this tradeoff cannot be found, a policy alternative is to pay the cost of achieving more marketing management control. Marketing control can be "bought" in several ways, including (1) purchasing of controlling equity interest in the venture; (2) negotiating contract terms which stipulate that local managers receive full training in marketing management and then employing these individuals as "watchdogs"; (3) conducting routine management audits to measure the marketing performance of transnational corporations (done with the aid of paid consultants); and (4) terminating the joint venture agreement and, instead, contracting for specific marketing services to be performed by foreign firms on a competitive bid basis.

The issue of achieving marketing management control is related to a third policy decision variable: the expected lifetime of the joint venture enterprise as an instrument for fisheries development. Many authors speak of joint ventures as stop-gap measures, to be abandoned when local skills are sufficiently well-developed to permit complete local management. Political incentives to adopt this outlook may be great, especially in the Pacific where tuna is an economically and politically important commodity. However, managerial training programs impose extra personnel costs on the joint venture. Rigid training requirements may also inhibit joint venture cooperation. Often transnational firms are reluctant to divulge marketing techniques and sales contacts to local managerial trainees. A short-term view of joint venture usefulness also ignores the fact that world tuna markets are highly competitive and volatile. Even the Japanese experts (e.g., Nichiro, Taiyo, and C. Itoh) have lost millions of dollars playing the tuna marketing game (Kitson and Hostis, 1983). Whether Pacific island communities care to undertake this risk and develop capabilities to market their own tuna resources in an efficient, competitive manner is not altogether certain. Thus, a policy that treats joint ventures as a long-term partnership deserves serious consideration.

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