The International Marketing Operation of Agricultural Cooperatives in Taiwan

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ABSTRACT

This paper attempts to explore into the predicament of the agriculture in Taiwan and the challenging the operation of the agricultural cooperatives, and propose the development strategies for the agriculture and orientations of future international marketing operation. Furthermore, issues related to strategic planning for the operation and management of the framing cooperatives are addressed with recommendations of feasible solutions and strategies for the problems identified.

Keywords: international marketing operation

INTRODUCTION

Being confined to small scale, production cost of agriculture in Taiwan lacks competitiveness due to comparatively higher cost of land acquisition and labor cost, and the agriculture is subject to significant impacts from imports because of small farming scale and the absence of economies of scale. To export its agricultural products, Taiwan has no other alternatives but to focus on those competitive ones while seeking to readjust operation, management, and organizational structure of agricultural organizations to cope with the transition and competition. When examining the modernized operation and management of agriculture in Taiwan at the strategic aspect, the economic environment in general confronting the agriculture in Taiwan should be the start aspect to cut in for investigation of the market place, competitiveness, and the prospect of domestic development of agriculture within the configuration of international trade organization followed by the review of the operation and predicament of the local agricultural cooperatives caught in the current agricultural environment. This paper attempts to explore into the predicament of the agriculture in Taiwan and the bottleneck challenging the operation of the local agricultural cooperatives, and propose the development strategies for the agriculture and orientations of future operation and management for reference by the local agricultural cooperatives. Furthermore, issues related to strategic planning for the operation and management of the framing cooperatives are addressed with recommendations of feasible solutions and strategies for the problems identified.

AGRICULTURAL MARKETING OPERATION & AGRICULTURAL COOPERATIVES IN TAIWAN TSATUS QUO

Predicaments Confronting the Small-scale Agriculture

The arable area of farm lands in Taiwan is comparatively small, and approximately one hectare per farm. The small scale essentially suffers problems of limited operation scale of farming and difficulties in realizing benefits of economies of scale. Therefore, the efficiency either in operation or production is not significant resulting in comparatively lower rewards of farming resources for a long time and the relatively lower income of the agriculture sector than that of the non-agriculture sectors. Accordingly, the agricultural sector falls far behind in the process of economic development. Meanwhile, the migration of the younger farming population to urban areas becomes very serious to force farmers have to rely upon non-agricultural incomes to maintain the basic living expenses. As a result, there are the problems of insufficiency in labor, aged population in the rural area, and comparatively high percentage of part time farmers.
The ratio of gross agricultural production as a share of GNP in Taiwan has dropped below 2% during recent years. The import of agricultural products in terms of value has increased from US$ 7.1 billion in 2002 to US$ 8.9 billion in 2004 while that of the export has increased from US$ 3.1 billion in 2002 to US$ 3.6 billion in 2004 since Taiwan has been admitted to WTO. The trade deficit has expanded from US$ 3.9 billion to US$ 5.3 billion. Admission to WTO introduces at the same time impacts to the operation environment of agriculture in Taiwan including reducing tariff, opening market, and reducing net subsidies for domestic agriculture.

The tariff in general after the tariff reduction compromised by Taiwan maintains a position somewhere between that of Japan and South Korea. The nominal tariff for agricultural products in Taiwan before joining WTO was 20.02%, followed by a drop to 15.2% in the first year, and further down to 12.9% in 2004. The local market was forced to open according to the WTO agreement so there is a tremendous increase of imported agricultural products. The net subsidies for agriculture have been sharply reduced since a commitment of a reduction of 20% from a total amount over NT$ 17.7 billion (convert to USD 536 million, the exchange rate on August, 2007 is 1USD = 32.9690 TWD) included for agriculture. In general, agriculture in Taiwan is now confronted by problems of aging farming population, lacking in economies of scale, decreased income by year per farming house, and the competition from invading imports.

Bottlenecks to the Operation of Agricultural Cooperatives

In facing the possible conflicts of collaboration compliance and practice, agricultural cooperatives in Taiwan are caught in dilemma. While enjoying associate favors granted by cooperative laws on one hand, farmers in Taiwan having participating in agricultural cooperatives develop a state of mind to fight against the compliance with cooperative principles on the other hand. The sense of cooperation among framers is very weak. Capital sources and operation scale constitute primary problems in the organization and management of the agricultural cooperatives. The capital source for a cooperative is limited to the contributions from members of the cooperative or the accumulation of reserves for legal surplus appropriated from operation surplus. The limited capital source however prevents immediate acquisition of the capital needed to cope with changes in external competition. Failure to immediately acquire the capital makes it difficult for the development of the cooperative. In addition, pursuing economic equality subjects the cooperative to limited efficiency improvement and frustrates the willingness of having up-scaling transportation and distribution of their products through the cooperative.

In carrying out its marketing functions of transportation and distribution as expected, agricultural cooperatives in Taiwan face the capital and human resources problems. It is very difficult for local cooperatives with limited operation scale, and inputs of production and labor, to acquire capital and recruit top talents. One of those causes discouraging the development of the cooperative is that most of the employees in a cooperative are member farmers or their relatives.

In providing guidance and assistance as well as incentives to the agricultural cooperative by the Taiwan government, there are too many regulating agencies existing at the same time so that much of the efforts are consumed by liaison and coordination among these regulating agencies. According to the analysis given above, operation predicaments confronting the agricultural cooperatives in Taiwan include the dilemma of equity and efficiency, failure in having corrective action for the cooperative principles to keep up with the times, poor efficiency in the organization and operation management, lacking in human resources, insufficient capital, frustrated channels for raising funds, and lacking in, if not absence of strategic resources.

Future Development Strategies for Agricultural Cooperatives in Taiwan

Agricultural cooperatives in Taiwan shall readjust their operation strategies for market and consumer oriented, and the value-added of their products and the diversified needs of the consumer in the products. In external trade, they shall place importance on production strategy, marketing strategy and promotion activities in build up the “brand of agricultural cooperative” and integrated international marketing operation. Strategies of expanding the scale of the cooperative included vertical and horizontal integration among cooperatives and searching for strategic partner to achieve the purpose of vertical and horizontal integration objectives.

Meanwhile, agricultural cooperatives in Taiwan shall consider the feasibility of “cooperative enterprise”. Introduce the ideas of agricultural enterprise will help transition and development of domestic agriculture.
Development of international cooperative with import and export oriented, plus enterprising operation and contracted production will be helpful in solving the production and marketing problems challenging the domestic agriculture.

To sum up, strategic concept of the international marketing agriculture cooperation may be derived for the domestic agricultural cooperatives to achieve their purposes of joint marketing, brand development, economies of scale, enterprising management efficiency, and development of export strength and international competitiveness. By taking advantage of the vehicle of the international agricultural marketing cooperation, a consistent planning and operation to integral the chains of value of the upper, the mid, and the lower streams of the agriculture and cover the operation of cropping, transportation, distribution, process, marketing, and export to the international market can be realized.

THE FUNCTIONAL STRUCTURE OF THE INTERNATIONAL AGRICULTURAL MARKETING COOPERATIVE IN TAIWAN

In terms of marketing function, the international marketing agriculture cooperation is comprised of vertical integration of six aspects from the upper stream down to the lower stream. The integration efforts must cover that for the aspects of production control, cropping and transportation, product grading and process operation, and marketing and service functions including international food safety and ID certification, brand planning of exports, sales promotion, and market development and services to foreign consumers (Figure 1).

Production Control in International Marketing

Firstly, the types of agricultural product for export must be selected in terms of competitiveness. During the stage of selection, foreign experience may be borrowed such as the Whomori model from South Korea in the planning of a common brand for all agricultural products to be exported, or the Zespri model from New Zealand in planning external market of monopoly for a single type of fruit. However, there is not a single type of product with high value-added and sufficient production scale to support the demand of the international market. Taking banana and rice ranking at the top of yield in Taiwan for example, quotations of rice from SE Asia, China, and even USA all have the pricing advantage; and export of banana has to face the competition from the Philippines and Central Southern America. Single product exclusively for external marketing certainly is not an option for Taiwan. Therefore, the Korean model is preferred to firstly identify agricultural, marine, and livestock products that are provided with the advantage of high value-added, and followed with strategic planning for international marketing and operation under a common brand.

Secondly, the selection of target market, type of product, international market strategy, product strategy, pricing strategy, international passage strategy and international sales promotion strategy shall be defined and planned to serve the basis for the construction of a chain of marketing value for the upper, mid, and lower streams of agriculture in Taiwan.

All farming operation and activities related to the process of production including acquisition of production assets and materials, soil improvement, fertilizer control, blight control, pesticide and spray control, irrigation control, florescent rushing operation, pruning operation, and cropping period shall fall within the scope of the filed management to facilitate the access to production resume of international specification and compliance with the certification of international food safety of the most strict international specification.

Finally, cooperation with academic institutes including agricultural colleges of technology, agriculture research institutes, and experiment farms and forestry centers in the form of cooperative alliance for the R&D of product innovation to reinforce the core competence of local agricultural products presents another option for the agricultural cooperatives to continue upgrading the agricultural products with innovative technology and shake loose cost advantage competitors from China, SE Asia or the South Central America.
International Marketing Operation Management

1. Professional transportation know-how and facilities

   The operation of having crops collected from the farms and transported to the distributions center for grading as well as the transportation before further process requires low temperature storage facilities and knowledge related to cold storage temperature, optimal temperature to keep product fresh, and the space for storage of finished products to deliver products pending export in their optimal conditions to the distribution center for grading, packaging and process.

2. Incorporation with hi-tech distribution and information flow systems

   There shall be the solid control over the updated status about product in transit. For example, each truck should be equipped with wireless satellite tracking sensor to transmit the current location of the truck, and information on the type, quantity, temperature, water containment, and freshness of the product in transit to the data control center at the cooperative to facilitate control of the updated status at any time.
Strict Grading & Process Level

In the strict grading control, product specification and product grading system shall be clearly defined to warrant that only the best products are selected. The control includes the process and manufacturing of various extents. For example, the fresh fruits and vegetables are only giving the regular process to maintain their fresh status. Further process is provided for fruit juice, dehydrated fruit, and fruit jams while in-depth value-added process is given to the making of ice cream from milk, or soft cake from glutinous rice.

International Food Safety & ID Certification

The planning and practice of Producer Traceability System allow international consumers to realize the production, process and manufacturing for each type of product and the food safety rules and inspection and quarantine specifications of compliance. Each export carton shall be labeled with a production resume ID showing product ID code, basic information, year of planting, description of product, area of growing, name of the farmer, process/manufacturing place, and the company name of the exporter. The consumer wherever he is on this planet could simply by clicking the website of the agricultural cooperative and entering the product code for the linkage to the Producer Traceability System maintained by the cooperative to access to all the detailed information about the product including the profile of the producer (name of the farming house, contact telephone number, introduction of the producer and the farm with photos); product information (including description, species, grade, process, packaging, export, and sales of the product); planting information (including seeding, growing process, cropping, water quality test, chemical fertilizer test, and freshness); and food safety information (including the food safety certification and inspection and quarantine certification).

International Brand & International Marketing Strategies

The process of development and management of a brand includes designation, design of ID systems, brand audit, design of enterprise slogans, continuous sponsorship of image consistent production and public events, maintaining brand communication with international media and consumers, and publicity and advertising activities via graphics, TV or Internet. The international marketing operation also includes penetration models, product strategy, pricing strategy, passage strategy and sales promotion strategy for the international market according to the type of product.

International Consumer Service

Producer Traceability System incorporated with the information system allows consumer for on-line enquiries about the information of the product the consumer is concerned. The information system is further adapted with various video records and provide real-time information to the international buyers by the gross for them to check out the updated information about their orders on one hand, and the association may accept on-line purchase contracts from major accounts and provide reservation services on the other hand.

THE STRUCTURE OF INTERNATIONAL AGRICULTURAL MARKETING COOPERATIVE IN TAIWAN

Fig. 2 Organizational Flow Chart of the International Agricultural Marketing Cooperative

I. Operational Sectors
   -The Northern Region Sector
   -The Central Region Sector
   -The Southern Region Sector
   -The Eastern Region Sector

II. Functional Sector
   -Product R&D Innovation Department
   -International Food Safety Department
Organizational Structure & Departmental Function

The headquarter (HQ) is the control center for the Taiwan International Agricultural Marketing Cooperative and charged with the general operation and strategy planning. There are ten departments created for the organization by function and operation. The operation sector is comprised of four departments respectively the northern, the central, the southern, and the eastern regions in charge of production control, transportation and distribution control, grading and process control, food safety control, and product packaging and creating operation within their regions. Meanwhile, the operation sector must carry out inter-departmental cooperation and information integration with other departments. For example, the operation of production control must cooperate with the Producer Traceability System Department for joint efforts of creating and maintaining production information, and further cooperate with product R&D department for innovation of production technology. The transportation & distribution control activities must work together with the information system department for the HQ to always control the transportation and distribution status. The Food Safety Department shall cooperate with the International Food Safety Department to complete food safety inspection and quarantine screening in advance so to make sure of the compliance with food safety certification of the strictest international specification. Finally, the packaging activities for export must be done together with the Brand Planning and Marketing Department. The operation center for the cooperative actually covers most of the operation undertaken by the International Agricultural Marketing Cooperative.

The functional sector includes six departments to be respectively described as follows:

1. Product R&D Innovation Department: maintaining cooperative programs with agricultural research institutes, and retaining research crews and experts with hands-on experience in agriculture for the innovation and R&D of local agricultural products and creating the cash crop with high value-added and transformation know-how with differential product strategy so to contend with competitors who enjoy cost, price, and wide land advantages.

2. International Food Safety Department: providing guarantee of food safety of the products for export with the food inspection system and quarantine measures of the strictest specification while cooperating with the domestic control and quarantine authorities to perform sampling test at the local operation control department of the cooperative for providing the official guarantee of food safety.

3. Information System and Producer Traceability System Department: providing information system configuration and information integration for all production unit, transportation unit, process & manufacturing unit, overseas transportation and distribution unit, and overseas market passage for the cooperative to keep updated with the domestic production, transportation, and manufacturing status or the distribution and consumption status of the overseas end-users at any time. The Producer Traceability System department works together with the operation management department for information integration for the configuration of each and all process flows including production, transportation, process, manufacturing, inspection, and packaging of all products in the database. The database is open to consumers around the world. The consumer simply enters the product ID code to access to all detailed information about the particular product.

4. International Brand Planning & International Marketing Department: building up and planning the brand image to lead agricultural products from Taiwan to penetrate into the international market under the logo of “Made in Taiwan”; efforts include brand positioning, brand title selection, brand mark and corporate ID system, brand strategy planning and international marketing activities; for example, the entering mode into the international market for new brand, strategies to cope with policies and laws by country in the global market, product positioning and pricing strategies, passage, transportation, and distribution strategies, advertisement, and service strategies, etc.

5. Overseas Sales Department relates to the business unit in action to execute international marketing activities in foreign market. The association may set up and maintain overseas sales units in the countries where the major accounts are located so to collect information about the local market, consumer, product, and competitors; come up with feasible
marketing and service strategies for exchanges of information with the HQ at home for the HQ to map out the strategies to be executed by the overseas sales department. The Overseas Sales Department will further approach business partners for the transportation, distribution, marketing, and passage on foreign soil for domestic agricultural products to ensure of the products are delivered sound and safe to the ultimate end-users.

6. Consumer Service Department works together with Producer Traceability System to respond to any question about and needs of the products by consumer while keeping on line with overseas sales department around the clock for providing information supports in time.

Incorporation of the Organization and Configuration of SW/HW Systems

The Taiwan government will contribute for the incorporation of the International Agricultural Marketing Cooperative and integrate the agricultural production cooperatives and contracted farming houses in the lower stream. Members of the cooperative subscribe their shares according to the amount of transaction and those shares subscribed are related to treasury stocks. The Farmers’ Bank will be contacted for financing in case of any insufficiency in the working capital or loans will be made through the ordinary financial system with the guarantee from the government. The Legislative Yuan will adopt an act to govern the International Marketing Agricultural Cooperative to give the legal status to the Taiwan International Marketing Agricultural Cooperative. Referring to the successful and highly praised experience of the incorporation of the similar cooperatives in USA, Canada, Australia, and New Zealand, all the cooperatives are backed up by powerful policies from the government and conferred with the legal status. Their approaches may serve as references to plan a bright prospect for the agriculture in Taiwan.

Creating Commodity Distribution, Information and Capital Flow Systems

1. Commodity distribution system: related to a consistent operation management system, wherein (1) Consistent operation in the phase of production – assuming that five different types of fruit, respectively, wax apple, mango, litchi, banana, and guava, are selected for international marketing and an SOP for each fruit has been concluded, all the contracted farming houses and cooperatives must follow the SOP for the International Agricultural Marketing Cooperative to carry on standardized production resume, grading, cost computation, and solving the unified buying price. A filed real-time monitor system is also created to document the use and input of fertilizers in each process of field management as well as to document and taking pictures of the growing history of each crop. (2) Consistent operation during the phase of transportation and distribution – the International Agricultural Marketing Cooperative must introduce, other than the existing facilities for transportation and distribution, standardized transportation and distribution know-how, cold storage and low temperature storage facilities and truck-laden satellite sensor information facilities. Standardized transportation process flow, transportation knowledge and cautions must be created depending on the product for export. Each truck shall be equipped with proper cold storage and satellite sensor information system for the HQ of the International Agricultural Marketing Cooperative to secure real-time control of the product in transit. (3) Distribution control in foreign market – the International Agricultural Marketing Cooperative shall cooperate with or help foreign distributors to make sure that their trucks are equipped with the same satellite sensor information system and cold storage facilities for the HQ in Taiwan to control the real-time information of deliveries to the end-users. (4) Set up distribution centers, process plant, food safety inspection center, and packaging center for each of all four regional operation control departments. Additional to the associate hardware facilities, software facilities and real-time monitor system shall be also provided for the International Agricultural Marketing Cooperative to monitor the post process, and upload process and records to the resume system of the producer.

2. Capital Flow System: The operation of the International Agricultural Marketing Cooperative will heavily depend on the contributions by the government with any insufficiency in capital needed for the initial operation to be made up by financial facilities offered by the agricultural monetary system. Products will be purchased from the contracted associations and farming houses at a price of the production cost of then current year plus a fixed profit (say, 10%) for the International Agricultural Marketing Cooperative to handle the transportation and distribution. Any surplus surviving the reduction of operation costs of the International Agricultural Marketing Cooperative and the repayments of principle and interest incurred from then current year from the sales revenues of the external trade will be reserved
for future business expansion, or distributed in pro rata to the members of the International Agricultural Marketing Cooperative as may be resolved by the International Agricultural Marketing Cooperative.

3. Information Flow System: (1) production control information system and field real-time monitor system, (2) transportation control information system and truck satellite sensor facilities, (3) grading and process control information system and real-time monitor system, (4) food safety inspection information system; (5) production resume database system, (6) customer service control information system, and (7) overseas transportation and distribution control information system. It is to be noted that all the systems referred in Items (1) through (4) must be linked to the database referred in Item (5), and that all the systems mentioned in Items (1) through (7) must be created and maintained by the Information Department of the International Agricultural Marketing Cooperative.

CONCLUSION & RECOMMENDATIONS

Agriculture in Taiwan is confronted by more competitiveness in the environment of the international trade since Taiwan has been admitted to WTO. How the agricultural products from Taiwan could possibly compete with the imported products in the domestic market and how to upgrade the competitiveness for the agricultural products from Taiwan in fighting for their market profile in the global market have become serious issues of survival. Excellent quality products, brand publicity, marketing strategies, global operation control and product differential strategies are all critical factors. To improve the international competitiveness for agricultural products made in Taiwan, it is a must to develop an International Marketing Agricultural Cooperative. The Taiwan government shall provide the capital for the International Agricultural Marketing Cooperative with financial facilities provided by the agricultural monetary system followed by the selection of products to bear the brand for export, and then the integration of the production, transportation, and distribution cooperatives in the lower stream to develop the consistent operation management process flow including controls of production, transportation, distribution, grading, process, food safety, production resume, packaging, international marketing, brand planning, overseas distribution and marketing, and international consumer service. In general, the conventional small-scale operation by the family type business is outdated and must be changed to keep up with the international trading style of agricultural products. Agriculture in Taiwan just has not only to go ahead with the horizontal integration at home for expanding the operation scale, promote the function to execute marketing, but also export the competitive products through the up-scaling International Marketing Agricultural Cooperative.

REFERENCES

