

Development of Agricultural Production and Marketing Models in Taiwan – Sustainable Agricultural Business Operations

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ABSTRACT

Taiwan is a small island with limited arable land. Agricultural production is invariably intensive farming. In some successful cases, there were exports to fetch premium prices. This study discusses some agricultural production models in Taiwan, especially Agricultural Production and Marketing Teams and Farm Associations which are ever-present in peri-urban areas. The purpose of this study is, through in-depth interviews, to understand the success factors of some selected APMTs, Agricultural Associations and some religion-based marketing such as the Lee-Zen organic chain. It is observed that successful APMTs achieved their individual *raison d'être*: value adding through further processing, shorten the supply chain, reliability of supply and product grading, and eventually better returns for all. Successful local Agricultural Associations run the so called 'Big Tenant Small Landlords' program. The program encourages the older generation to lease out their small blocks of land and younger generation to cultivate them with modern farm management equipment and principles. The program has resulted in 'stray-birds' returning to the peri-urban areas. The rise of religion-based marketing, shows that many consumers have withdrawn their trust for secular organic claims, but reserved their trust for groups associated with religion.

Keywords: Agricultural Association, Agricultural Production and Marketing Team, Lee-Zen organic chain, Big Tenant Small Landlords' program

BACKGROUND

Taiwan is a small island (36,000 square kilometers) with about three-fifth of the land being covered by mountains and hills. While this means less arable land, it also gives the island the opportunity to grow not only tropical, sub-tropical, but also temperate products on areas with higher altitudes, albeit a small amount. Growing various fruit and vegetables is facilitated by good rainfall in general. As Taiwan is a small island with limited arable land, Agricultural production is invariably intensive farming. In some successful cases, there are exports, such as banana and mango to Japan, papaya to Europe, floricultural products to the U.S. and Europe, and farmed barramundi to Australia. It is thus worth noting its production models in practice.

There are three major production and marketing models in Taiwan that are worth noting: Agricultural Production and Marketing Team at the village level, Agricultural Association at the town level, and non-profit based chain stores for organic or safe products. Today Agricultural Production and Marketing Teams and Farm Associations are ever-present in peri-urban areas.

The development of Agriculture Production and Marketing Teams (APMTs) and Agricultural Associations can be dated back 60 years ago in the early 1950s when Taiwan was returned to the Nationalist Government from Japanese occupation in the wake of WWII. Being aware of the political and social significance of having sufficient food supply and the support of peasants, the Nationalist Government embarked a series of land and agricultural reforms. It was a period when war between Taiwan and China was conceivable, and hence an agricultural policy of self-sufficiency through increase in production was advocated. Among many other aid recipients from U.S. economic aid programs following the end of the WWII, Taiwan is one of such beneficiary. The Agricultural Reconstruction Committee then was under extensive support from U.S. capital and expertise. In the 1960s, some

kind of rice Production Teams were first developed in rural areas since rice is the staple food for the population. The success of rice production teams spread to other crops in the 1970s although they were called different names, such as Joint Marketing Team, Joint Plant Protection Team, or Joint Shipment Team. In 1992, the name Agriculture Production and Marketing Team was first adopted until today (Lin, 2002). Currently, there are about 6,200 APMTs across 22 agricultural industries in Taiwan for various food, agricultural products and floricultural crops (Lu, 2011). Among them, nearly one-third had GAP accreditation.

While at its early stage, the development of APMTs and Farm Associations was socially and politically induced, the continuation and evolvement of them is under more rather than less influence by the current economic or trade climate. China accessed to the WTO in December 2001, and a month later in January 2002, Taiwan accessed to the WTO. In terms of agricultural industries, this move could be loss rather gain if major reforms in the industries are not done in time. Hence, there is a sense of urgency to strengthen and broaden the functions and activities of these farm organizations.

There are many forms of APMTs depending on how the members want it to be. Despite the fact that they are all called APMTs, one APMT can be for members to share equipment, another one can be for joint selling, a third type can be for joint production and marketing or even resemble the structure of a company. Nevertheless, APMTs have no legal status like company. It is merely an entity organized voluntarily by between 5-30 farmers who share similar needs to work together with a view to achieving group goals. One incentive for farmers to organize into teams is that the government provide seed money (about USD70 per member), subsidy for equipment (half of the cost), and others depending on policies of the time.

In terms of Agricultural Associations, nearly all farmers belong to one such association in their neighborhood. An Agricultural Association performs various functions depending on how the executive committee decides how to run it. It can have its own bank and grocery store in addition to the standard functions expected of an agricultural association, such as consolidation of products, quality control, supply of farm inputs and joint marketing. Most farmers think of their respective farm association when they encounter farm, financial or other everyday problems. Most of the APMTs and Agricultural Associations in Taiwan are considered successes.

One Agricultural Association usually has many APMTs in its town level jurisdiction. The managers and members of the board of directors of Agricultural Associations are often powerful local figures. They possess good sources of information not only in areas of agriculture but also finance and are often intermediaries between governments and farmers.

Research has shown the usefulness of group marketing in improving product quality and profitability (O'Dell, et al., 1990; Hsu, 2007), in reducing the levels of marketing channels (PROFIL, 2005), and in developing a brand image (Shirai, 2010). Many success stories of joint marketing come from developed countries, such as the famous New Zealand Kiwifruit model comprised of around 2,700 growers having 20% of the world market, and the well-known Japanese and Korean farm co-ops for various products. APMTs have increased the bargaining power of smallholders, expanded their information sources, and most importantly, getting farmers to know each other better through meeting their common needs. Anecdotal evidence shows that the APMTs have been resilient after Taiwan's accession into the WTO in 2002. Some APMTs form alliances to expand production lines, to improve economies of scale, or to offer a suite of products to customers. The purpose of this study is to, through in-depth interviews, understand the success factors of some selected APMTs, Agricultural Associations and the Lee-Zen organic chain and to appreciate the mechanisms of their operation.

METHODOLOGY

This study uses in-depth interviews with some APMT team members and leaders, managers of Agricultural Associations and Lee-Zen chain store to understand the success factors of them. Teams and Associations selected for interview were based on personal relationship, either direct or indirect relationship; i.e., convenience sample, so that the interviewees were more willing to talk. Interviews were conducted in 2011 with 10 APMTs, a few Agricultural Associations and store managers of Lee-Zen. APMTs are mostly vegetable, fruit, floricultural, and rice teams. Most

of the teams have some 10 members. Some have gained ISO accreditation. Some were able to export themselves. While they are all called APMTs, there are vastly different organizational structures to be understood.

AGRICULTURAL PRODUCTION MODELS IN TAIWAN

The model of Big Tenants Small Landlords of Some Agricultural Associations

One interesting model is the so called Big Tenants Small Landlords for carrot growers in Dounan Agricultural Associations, which consists of several APMTs, in the middle region of Taiwan. Contrary to the common phenomenon of big landlords and small tenants, Dounan Agricultural Association did the opposite. Mr. Z, the champion of the initiative, had been puzzled by the escalating problem of younger population leaving rural property. What happened was that rural property owners are getting smaller and smaller blocks of land inherited from the previous generations. With small blocks of land, farm households cannot achieve economies of scale for mechanization. Farm property owners were also observed to be ageing, with average age around 62, which is significantly higher than those in other industries. On the other hand, there were younger people in rural areas who cannot get properly paid jobs and were leaving their rural properties. Some of these young people have properly trained agronomic knowledge and skills. Mr. Z saw the prospect for small landlords to succumb their land to the younger people who need jobs and have agronomic skills. The matching of needs between the two generations was made possible by the local Agricultural Association. When many small landholders leased out their land jointly, a bigger block of land was created, which could be farmed with modern machines and management.

The “tenants”, i.e., the younger growers with modern agronomic knowledge and skills, are running the farms but pay rent to the landlords who are usually the older generation. Each tenant, by negotiation, is assigned a section of the block of field. One of the tenants is the manager of the farm, who distributes and monitors and use of pesticides and fertilizers. Distribution of profits for the tenants is based on yields and size of the field that the tenants are cultivating. The Association used radio frequency identification (RFID) system to track down who the tenant growers are, amount of farm inputs used, yield and quality. Because of its product traceability feature and well managed production system, the Association gets premium prices in the domestic market. They also export to Japan, whose buyers have visited the farm and convinced of its claim of safe products being credible.

With the assistance from central and local governments, some variants of the model have spread to other Agricultural Associations which try to attract young graduates, generally aged between 18 and 36, from agriculture related areas and to encourage older farmers to retire and lease out their land. Activities sponsored by the government, more precisely by the seven government-owned Agricultural Improvement Farms under Council of Agriculture (the equivalent of Ministry of Agriculture in other countries), include making of compost, hands-on farming skills and extension techniques of farm tourism and eco-tourism. Training activities also include management topics, like the procedure for applying for traceable products and farm loans. These activities are abundant and tenant growers enjoy attending, not only for professional skills but also for social networking. In some cases, the land is provided or leased out by the government. The undertaking is aptly termed ‘the Stray-birds Movement’ alluding that the next generation of farm households is returning home, who had previously been strayed in large cities without proper jobs (Ni, 2007; Wang et al., 2010). Scores of industries are covered under the Stray-bird Movement, such as organic tea and other organic products, potted plants, pick-own-fruit, bamboo shoots, winery, aquaculture, animal husbandry and farm tourism.

Success factors for Agricultural Production and Marketing Teams

In terms of APMTs, our observations show that the organizational structures varied. Some are proprietary limited, others are partnership and a few are co-ops. Each APMT has its own background of coming into existence. One success factor is to form a team with those who can work well each other in the first instance. In one fruit APMT, the leader is a 67 year old retired high school teacher, Mr. H, who is very concerned about misuse of pesticides in conventional farming practice. Through his social network with some government officers, he was swayed into forming an APMT with his friends who were already growing fruit, and became the leader of the group. He then started acquiring production skills by attending workshops sponsored by government Agricultural Improvement Farms and some non-profit organizations.

Each year since 2005, 30 successful APMTs were nominated for recognition from 6,200 APMTs across 22 agricultural industries in the areas of horticulture, livestock, fishery and farm tourism. This practice encourages sharing of experiences and motivates more APMTs to explore business models suitable for them and to stretch their capabilities through working as a team.

While on the surface successful APMTs demonstrated good quality of products, observations from interviews point toward other underlying factors. Common threads among successful APMTs, as found through interviews, include group cohesiveness and trust between team members, equitable sharing of profits and effective leadership by the respective APMT leaders. The capability of the leader to win over members and the experiences of the APMT leader appears crucial to unite members working together. Effective APMT leaders are able to provoke themes that engage members to work in the same direction, such as 'Quality is the life blood of our team!', or 'Safe guard our brand name!'. Other success factors are sticking to the principle of sharing of profits and losses based on the size of farm land and being in touch with government guidelines, rules and strategies.

It is observed that successful APMTs achieved their individual *raison d'être*: value adding through further processing, shorten the supply chain, reliability of supply and product grading, and eventually better returns for all. Underperforming APMTs are observed that members lack interconnectedness among members, an unambiguous sense of what constitutes rights and obligations in compliance with contracts, jealousy and suspicion among each other.

The involvement of non-profit organizations in retailing

The largest non-profit organization engaging in production, organic accreditation and chain retailing is Lee-Zen Corporation Limited, which is associated with a Buddhist denomination. Taiwan is a society displaying all characteristics of competition, some of them being disappointing when it comes to business ethics. Reports of unsafe products come up every so often in the media. This pulls many consumers toward the option of organic products, but many cannot trust the authenticity of its organic claim. Odd it may sound, the non-profit Lee-Zen brand quickly cashes on this phenomenon as many people believe in the integrity of their products given that the corporation is associated with Buddhism.

Seeing the success of Lee-Zen from one denomination of Buddhism, another Buddhist related organization, Ci-Ji, also started marketing manufactured 'healthy' products, such as cereal and soy powder in the hospitals run by the organization. Not surprisingly, there are a few Christian organizations emerged marketing 'healthy' food products, capsules, detergents and cosmetics. It seems that consumers have withdrawn their trust for secular organic claims, but reserved their trust for groups associated with religion.

CONCLUSION AND DISCUSSION

The success of the Taiwan APMTs and Agricultural Associations has exported to some parts of China, where the same level of success has been observed. Chinese local authorities have invited some Taiwanese managers of Agricultural Associations to show case their experiences in China. It would be interesting to see whether the models can be replicated in other settings where cultural backgrounds are similar. It should be pointed out that the success of APMTs in Taiwan can partly be attributed government assistance, guidance and tangible support in terms of equipment and seed money. It would be challenging to see whether the models are sustainable when all such supports are gone. One note on the rise of religion-based marketing of organic products, is that many consumers, in an environment of bursting mercantilism, cannot easily trust organic claims.

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台灣農業生產與市場行銷發展模式探索 – 永續農業產銷經營模式

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摘要

台灣可耕農地面積非常有限，農業生產無可避免地需採用精耕方式。在此方式下，有些農產品也成功外銷獲得合理的售價與利潤。本研究針對普遍存在於台灣各鄉鎮中的農會及農業產銷班進行產銷模式的探討。透過與相關人士與業者深度訪談，本研究分析地方農會、農業產銷班以及具有宗教色彩的里仁有機產品組織等在產銷整合上成功的關鍵因素。研究發現農業產銷班經營成功的主因來自於它們掌握住增加產品價值的農產品加工與分級作業，並且縮短了產品供應鏈的長度，避過中間商的剝削，致使成組織員的獲利大幅增加。部分地區的農會成功地推動「小地主大佃農計畫」，鼓勵傳統老農將面積小且零碎的農地集體租予新一代年輕的「佃農」，再由這些回農青年運用現代化農耕設備與管理技術來經營整合完成的大面積農地。這類計畫有效地吸引為數不少的「漂鳥」歸鄉，積極投入農業產銷的行列，創造就業機會與更高產值。而里仁有機產品的銷售迅速成長，則顯示了台灣大多數消費者對於宗教性組織所標榜的有機產品的信任度勝過於一般市場的商業性宣傳。

關鍵字: 農會，農業產銷班，里仁有機產品，小地主大佃農計畫