ภาคีความร่วมมือระหว่างภาครัฐและภาคเอกชนในการส่งเสริมการพัฒนาของอุตสาหกรรมอาหารไทย

Public-Private Partnership in Sustaining Thailand's Food Industry Development

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บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อศึกษาภาคีความร่วมมือระหว่างภาครัฐและภาคเอกชน (Public-Private Partnership: PPP) ในแผนพัฒนาและนโยบายการส่งเสริมการพัฒนาอุตสาหกรรมอาหารของประเทศไทย ลักษณะของภาคีความร่วมมือในปัจจุบันและบทบาทของภาครัฐและภาคเอกชนในภาคีความร่วมมือดังกล่าว โดยเฉพาะภาคีความร่วมมือระหว่างภาครัฐและภาคเอกชนภายใต้โครงการเมืองนวัตกรรมอาหาร หรือ Food Innopolis ซึ่งเป็นโครงการนำร่องที่ริเริ่มโดยรัฐบาลในการใช้กลไกภาคีความร่วมมือระหว่างภาครัฐและภาคเอกชน (PPP) เพื่อส่งเสริมการพัฒนาของอุตสาหกรรมอาหารของประเทศภายใต้ยุทธศาสตร์ชาติ 20 ปีและประเทศไทย 4.0 การศึกษาครั้งนี้ใช้วิธีการวิจัยเชิงคุณภาพ โดยการวิเคราะห์เอกสาร การเข้าร่วมสัมมนาและประชุมเชิงวิชาการ และการสัมภาษณ์แบบมีโครงสร้างกับกลุ่มผู้ให้ข้อมูลสำคัญทั้งหมด 14 คน ได้แก่ เจ้าหน้าที่บริหารโครงการของภาครัฐ 5 คน และตัวแทนจากบริษัทเอกชนที่เข้าร่วมโครงการเมืองนวัตกรรมอาหารจำนวน 9 คน ผลการศึกษาพบข้อมูลเชิงลึกบางประการเกี่ยวกับพลวัตรของความแตกต่างระหว่างภาครัฐและภาคเอกชน

ที่เข้าร่วมโครงการ โดยเฉพาะในด้านบทบาท ความรับผิดชอบ และขั้นตอนการดำเนินงานในการเข้าร่วมโครงการ อันเป็นผลโดยตรงจากลักษณะโครงสร้างและวัตถุประสงค์การจัดตั้งที่แตกต่างกันระหว่างองค์กรที่อยู่ในภาครัฐและองค์กรที่อยู่ในภาคเอกชน

คำสำคัญ: ภาคีความร่วมมือระหว่างภาครัฐและภาคเอกชน, อุตสาหกรรมอาหาร, เมืองนวัตกรรมอาหาร

Abstract

This study aims to study public-private partnership (PPP) in Thailand's food industry i.e. how PPP was emphasized in recent development plans and policy statement, what are the existing patterns of the partnership, and how public and private sector play their roles in the process. However, the scope of this study only focuses on formal public-private partnerships that endorsed by national government under Food Innopolis project, which is a nation's pilot project initiated by the government to support food industry development under the 20-year National Strategy and Thailand 4.0. In this study, Qualitative research methodology was applied; data was primarily obtained through documents analysis, seminar and conference attendance, and structured interviews. The total 14 interviews i.e. 5 interviews from government officials with administrative positions and 9 interviews from the private businesses participating in Food Innopolis project were conducted. The findings offer some insights into the dynamics of the differences between the private and public sectors pertaining and operating to their partnership arrangements and given tasks due to the different structures and organizational objectives that exist between public and private organizations.

Keyword: Public-Private Partnership, Food Industry, Food Innopolis

Introduction

As twenty-first century proceeds, nation states are increasingly challenged by their responsibilities to provide public services and infrastructures that are more complex and thus surge to collaborate with each other as well as with their business partners to fulfill such high expectations. For its part, the private sector is an important source of information, assets, and capabilities that the government does not possess. These initiatives are commonly referred to as public–private partnerships (PPPs).

PPPs have been defined as collaboration between a public sector (government) and private sector (for-profit) entities to achieve a specific goal or set of objectives. This collaboration results in government-business relationships that range from service contracts, supply chains, ad hoc partnerships, information sharing system, resource dissemination partnerships, to concessions or joint venture in large projects. Over the past decade, the number of public-private partnerships has risen significantly and today one can find them in almost all policy areas, including being promoted as a mechanism for improving productivity and driving growth in the agriculture and food sectors around the world. And although PPPs are most common in such sectors as infrastructure, health and education, their applications in the food and agriculture sector is relatively new. However, the recognition of PPPs as a tool for food and agricultural development is clearly increased over the past few years, especially for developing countries and emerging economic nations, as it is reflected in many national food and agricultural development strategies and the design of PPP policies and laws (e.g. Government of Uganda; Government of Peru, Government of Pakistan; Government of Kenya; Government of Indonesia; Government of Ghana; Government of the Philippines; and Government of China) (FAO, 2016).

For Thailand, due to the rapid growth of economy over the last two decades, the country has transformed into a middle-income nation with fast growing agribusiness and food industries. Thailand's food industry became one of the most developed in Asia as the country became the world's top exporter of rice, cassava/tapioca, chicken, canned and frozen seafood, canned pineapples, as well as sugar cane and sugar. (FAO, 2013). The popularity of Thai food products among international customers also have helped to dub Thailand as "The kitchen of the World". Nevertheless, as a result of such economic growth and recent development, new challenges for Thailand's food processing have emerged. Increased incomes and living standards of Thai farmers which led to the increasing of the costs of food and agriculture production, along with growing competition from neighboring countries e.g. Vietnam, Cambodia, Laos and Myanmar, has made it more difficult for Thailand to offer low prices on the global marketplace. In response, Thai government has been trying to shift the food production towards a higher value chain to stay competitive. The recent development plans from the government (Thailand 4.0 and Food Innopolis) underline the need for food industry to advance on a foundation of science and technology rather than on cheap labor, and primary or resource intensive production.

Thailand 4.0 and Food Innopolis are among recent development strategies from the government that emphasize the importance of science and technology development in food industry. These development plans also highlight the use of PPPs as a means to modernize the nation's food processing industries, for instance, by sharing in large financial outlays and by managing or providing expertise for research and development projects. In essence, Thailand 4.0 underlines the establishment of PPPs to promote value-based supply chain, technology transfer, and the creation of Special Economic Zone

within the country. Food Innopolis, the Thai government project focusing on research, development, and innovation for food industry which aims to promote Thailand as a world class hub for food innovation, highlights the importance of private sector by offers privileges and incentives for businesses that willing to invest in the project. These incentives including income tax exemption, tax deduction for research expenditures, special permit to own land, advanced technology training, and other public-private resource sharing (NESDB, 2016; NESDB, 2017).

With these development goals and ongoing trend in Thailand development policies, food related PPPs have become a crucial discussion for practitioners in food processing businesses. However, Thailand's academic literature has not yet caught up to the practitioner understanding of PPPs prominence in food industry. This topic has received much less interests and only has been discussed in narrow ways in the scholarly literature in Public Policy or Public Administration arena. Concrete contributions from other related disciplines such as Management Sciences and Economics also appeared to be limited. This is surprising, as PPPs are perhaps the most dynamic and important subjects for national and global development agenda today. Given the evolving policy framework and ongoing organizational change within Thailand and the so-called government reforms, it is even more important to note where we are in our efforts to establish effective PPPs in our food industry. This study, therefore, would try to fill a gap in PPPs scholarship by discussing essential role that public-private partnerships are now taking in Thailand food industry so that necessary policy to support them can be identified.

Scope of the Study

This study aims to study public-private partnership in Thailand's food industry i.e. how public-private partnership was emphasized in Thailand's recent development plans and policy statements; what are the patterns of the ongoing partnerships; and how public and private sector play their roles in the process. However, this study aims to study only formal public-private partnerships that endorsed by national government under Food Innopolis project, which is a nation's pilot project initiated by the government to support food industry development under the 20-year National Strategy and Thailand 4.0.

In the study, Qualitative Method research methodology was applied. Data was primarily obtained through documents analysis, seminar and conference attendance, and structured interviews. The total 14 interviews i.e. 5 interviews from government officials with administrative positions and 9 interviews from the private businesses from small, medium, and large companies participating in Food Innopolis project were conducted.

Research Design

For the purpose of this research, after examining the objectives of the study and realizing the absence of past review and distributed literature on public-private partnership in Thailand's food industry, an exploratory descriptive research design had been chosen since it would decisively portray the qualities and experiences of the population under study. Exploratory descriptive research would suits best because according to Uma Sekaran (2000) an exploratory study research was performed when a researcher had little knowledge about the circumstance or had no data on how comparable issues or research issues had been previously understood. It embarks on investigating and discovering the real nature or characteristics of the problem. Moreover, solutions, new ideas,

and groundbreaking findings could derive from this type of research (Richardson, 1996), providing a inclusive answer of who, what, when, where, why, and way (6 Ws) of the problem under the study, usually through a questionnaire survey, interviews or observations (L. R. Gay, 1992)

Prior to the development of questionnaires for the structured interviews, the researcher had explored the literature on the subject from related studies, news articles, press releases, journals articles, as well as field works i.e. visiting Food Innopolis site and discussing with the public officials overseeing the project. The respondents were also made to understand that some of their verbatim statements would be reported and utilized as a part of the research when it would be necessary. They were also given the confirmation that the data gathered would be treated with confidentiality and privacy. Ethical procedures such as informed and voluntary consent, confidentiality of information shared, anonymity of interviewees, no harm done to the interviewees and reciprocity were carried out.

Public-Private Partnership Overview

Public-private partnerships are not new. The term public-private partnership or PPP was emerged and popularized in the 1970s when neo-liberal scholars began to question the predominantly Keynesian economic paradigm and the role government in the context of economic downfall. The neo-liberalism then started to blame state incompetency in dealing with public debt instead of ascribing to the market failures (DESA, 2016). Modern PPPs evolved in the UK in 1980s, initially employed for government's projects for urban constructions or infrastructure development while adhering to control the rate of public debt (Budäus and Grüning, 2004; as cited in DESA, 2016).

By the end of the twentieth century the market-oriented system of public service provisions was compelling and governments around the world were all realized that provision of public goods and services required more than a hierarchical command system of management. Under neoliberal regimes and global-spread economic reforms, many governments seek to reduce their direct involvement in service provisions through privatization, a mechanism of transferring ownership of a public function to private sector hands. During this process, private firms will be encouraged to participate in infrastructure and institutions reforms to make them more appealing for private investment. Governments in various countries then thus search for a creative ways in which public and private sector can collaborate to effectively provide quality public goods and services. Attentions have been paid to the use of private firms' business resources and skills through an establishment of partnership between public and private sectors.

With a premise of market-oriented system, governments, with only limited resources and flexibility, alone cannot effectively manage in today's competitive economy. It requires private sector's dynamism, technologies, capital, managerial skills, entrepreneurship, and other resources to grow in the competitive market. Therefore, the partnership between public and private sector were accepted as a mechanism that more appropriate than the traditional hierarchical system management and that public-private partnership can be seen as a middle ground where the best features of each partner are integrated (Faulkner, 1997). Several functions of government including social responsibility, equitable distribution of goods and services, job creations, environmental protection, and public accountability has to be sustained, while integrating with private's firms managing skills and access to finance to provide better quality services. In this sense, public-private partnership is a management

tool that can be used to protect public interest while not having to jeopardize public finance under market incentives.

Consequently, more and more governments are becoming more aware that coping with today's economy requires giving greater role to a more dynamic and flexible private sector and reducing the size of government involvement. This trend and the growth of private sector reflected in higher inflows of private capital and increasing private sector investment in public service provisions. This cross-boundaries relationship between public and private organizations proved to be a success case in developed countries in the West where government-business transactions are more defined with sound legal frameworks and contracts. On the other hand, the collaborations between public and private sector in developing countries indicated to a different story. In developing countries, where government-business relations is hindered by discrimination, asymmetric information, imperfect competition, and corruptions, disputes are likely to occur and projects will be delayed or terminated (Pongsiri, 2003). This suggest that successful implementation of a public-private partnership requires a large extent on a well-established legal framework, clearly defined agreements and contracts with a proper risk sharing, responsibilities and benefits allocation, and professionalism among officers from both sides.

Public-Private Partnership as Tools to Sustain Thailand's Food Industry Development

Public Private Partnership in the Food Industry was prominently emphasized in the recent development plans and policy statements i.e. National Economic and Social Development Plan (NESDP), The Ministry of Agriculture and Cooperatives Policy Framework, The National Science and

Technology Development Agency (NSTDA) and the National Center for Generic Engineering and Biotechnology (BIOTEC) policy statements, the 20-year National Strategy, and Thailand 4.0 policy. From 2012-2016, the 11th edition of NESDP addressed several aims and goals to make agriculture "the main source of the country's income and food security" and included as one of the six dimensions of resilience economy that "based on knowledge and technological advancement". Among several key measures, the 11th NESDP has referred to cooperating between agriculture, food, and service sectors to increase the relative share of the overall economic output as one of the targets for national development strategies.

The current edition of NESDP (the 12th, for 2017-2021) is continuing to highlight the importance of PPPs as a driver to achieve several development goals. PPPs are underscored as guidelines to: Improve agricultural productivity and value chain development; Promote collaborations between medium and large private companies and small holder farmers to enhance income and supply chain stability; Develop a national standard for food and agricultural product quality and safety; Improve the post-harvest management, as well as packaging design and final product quality control; Promote the transferring of farm certification and licensing procedures to government approved private organization; Develop market infrastructures and logistics systems via private partnership; Promote cross-sector investments within the frame of responsible agricultural investment; Promote E-Commerce market for food and agricultural products and; Encourage cooperation between government and private firms, at local and at international level, for knowledge and technology transfers in water and other natural resource management.

The increased awareness of utilizing cross-sector technology, knowledge, and risk sharing between private and government entities are also recognized in other nation's key development plans such as the policy framework of the Ministry of Agriculture and Cooperatives (MOAC), as well as in the organization goals of the National Science and Technology Development Agency (NSTDA).

According to MOAC, PPPs are also suggested as a management tool, particularly in R&D steps, to ensure the success of its policy goals. After NCPO took the legislative powers in 2014, the MOAC has push forward the "Single Command" policy as a booster for agricultural sector reform. Under the Single Command policy, the Minister of Agriculture Coopertives Gen.Chatchai Sarikulya declared measures such as the implementation of Agri Map for a proper usage of different resources to suit cultivation and marketing, and the implementation of technology for farm management and market access improvement have to be put into place. In addition, private firms doing business in food and agricultural sectors were also encouraged to collaborate with public agencies to achieve national sector reforms. Mutual understanding in terms of development goals between public and private parties must be made. And PPPs, especially in R&D, technology transfers, and improving market access and facility are being promoted.

To support this operational format, government has also set up public agencies to support R&D and production management for Thai farmers and enterprises in food and agro-industry. Two of the most important agencies providing these services are the National Science and Technology Development Agency (NSTDA) and the National Center for Genetic Engineering and Biotechnology (BIOTEC).

NSTDA and BOITEC are government agencies that are founded to support R&D in Thai food and agricultural sectors as a one-stop solution center with services such as technology and technical services, financial services, human resource development and training services, and business support consulting for production, marketing, and licensing services. Under NSTDA, BIOTEC is one of four technology centers that operate as a research institute for food and agricultural development. With more than 30 laboratories, 7 research centers in major universities, and over 150 scientists, BIOTEC is known as a leading research institution in Thailand and among Southeast Asian Nations (ASEAN). With tasks covering a wide spectrum, BIOTEC requires large amount of funding. In addition to government funding, BIOTEC's income comes from revenue from providing services, and non-governmental funding such as from private foundations' contributions and international funding agencies.

To support NSTDA and BIOTEC, In 2002 Thai government also established the country's R&D hub known as Thailand Science Park (TSP). To promote innovation development and R&D activities in Thailand's major industries, TSP was designed as ecosystem to encourage and support R&D linkage between government and private sector. With four national research centers and over 70 corporate tenants, of which 30 percent are international companies, and 2,000 full time researchers, TSP is now the largest fully-integrated research and development hub in Thailand, where private tenants can gain access to government's highly-skills personal and lab facility. In addition, to promote R&D trough public and private partnership, private companies in food related industries, who wish to collaborate with NSTDA, BOI, and TSP, will receive various privilege and incentives, such as exemption of income tax and permission to own land and facilitation on granting work permits and visa.

Cross-sector Public-Private partnership is also highlighted in the concept of "Pracha Rath" or "Civil State" indicated in Thailand 4.0 Strategy. Under Civil State approach, the Thai government has combined Public-Private Partnership and Thailand 4.0 strategy to support industrial development, whether for productivity improvement, global market entering, or research for innovation. With help from government on facilitating legal framework, infrastructure development, and global market access, private sector can provides their expertise on R&D, investments, and human capital development, while academic institutions and research agencies may contribute on knowledge enhancement, labor re-skilling, and technology transfers (Government Public Relations Department, 2016).

Under these policies enforcement, there were several success PPP projects between government and private companies in the past ten years. However, the most concrete applications of such concept was the initiating of Food Innopolis project

Public-Private Partnership under Food Innopolis project

Food Innopolis is the first government funded one-stop solution center for research, development, and Innovation (RD&I) service to private investors. It was established to create a linkage between public and private sectors, from large, international companies, to SMEs and startups companies in the country, in order to support innovations and value added in food supply chain, as well as to support other industry reform measures indicated in Thailand 4.0 policy.

Operating under NSTDA, and located within TSP, Food Innopolis is government funded one-stop solution center for research, development, and Innovation (RD&I) service to private investors. With approximately USD 283.8 million in funds, Ministry of Science and Technology has prompted Food

Innopolis with resources availability comprise of 3,000 researchers, 10,000 students in Food Science and Technology, 9,000 food factories, 150 food research laboratories, 20 pilot plants, and 70 universities as partners (TIR, 2016).

As stated by the Business Development Manager for Food Innopolis, the project emphasizes on 3 key areas: healthy food, value added food, and food innovation. In fostering development and competitiveness in Thailand's food industry, the scopes of the project's mission are:

1. To support food innovation and technology in the development of food products and processing, packaging and logistics system, food production and auto-engineering manufacturing, and the research consulting and human resource;

2. To support food safety standards and inspection systems development by setting up a one stop service for food safety information; providing inspection service for food quality and safety in accordance with global standard; building service network with international food inspection agencies; and facilitating food safety licensing and patent granting

3. To provide infrastructure for research laboratories and innovation centers

4. To provide business consulting and marketing services such as startup business incubation service, human resource training, marketing survey, and intellectual property protection.

Moreover, as Food Innopolis belongs to one of the BOI's super cluster (as stated in Thailand 4.0 policy statements), BOI thus also offers wide range of tax and non tax incentives for private partner in food industry. Tax-based incentives include the exemption of corporate income tax for up to 8 years, with additional 50% reduction for 5 years, special accelerate depreciation rate for R&D machineries and equipments, and 300% tax deduction for R&D expense.

While non-tax based incentives include of legal privileges for international companies to own land, as well as special facilitation on visas application and work permits procurement.

As of June 2017, Food Innopolis has a total of 35 organizations from various sectors in its R&D network which were initiated under a memorandum of understanding or MOU since May 2016. The MOU was signed between public agencies, private companies, and academic institutions to provide research infrastructure, facility and human resource services, along with food innovation experts and specialty to drive Food Innopolis as *"an investment zone for research, development and innovations of private sector in order to increase competitiveness of the food industry"* (Food Innopolis, 2017).

Partnership Typology

Under Food Innopolis project, the cases of PPP can be identified into three types of partnership:

1. *Partnerships for research collaboration*: Partnerships for research and development collaboration were aiming to support the development of new technology and innovation to improve productivity. They also include partnerships for technology transfer and talent mobility program to improve production techniques.

2. *Partnerships to develop food production value chain*: these partnerships were designed to develop a specific value-added product, primarily to support quality certification to gain access to domestic and international market.

3. *Partnership for business consulting*: This type of partnership may involved in business service and counseling to help upgrade business and management skills including to support private partners in the conducting of a

business plan, market analysis and financial analysis, human resource training, information provision, business networking, as well as for the preparation to obtain the IP ownership, certificates, business license, work permit/visa, etc.

Roles and Functions of Partners in the Partnership

From in-depth interviews, the most common roles of the public and private partners under Food Innopolis project are described below.

Public Sector Roles

Creating a supportive regulatory environment with appropriate incentives in alignment with national strategy: Public sector e.g. Ministry of Science and Technology and NSTDA ensured that legal and regulatory environment must be suitable for the partnership process to support the establishment of success public and private partnership. Public sectors were also responsible for the designation of appropriate incentives in order to incite private sectors participation in alignment with national priorities and development strategy.

Leading the preparatory phase of partnership: Public partners were responsible for the PPP concepts designs. For partnerships under Food Innopolis project, once the concept of the project has been developed, the public sector begins to establish the set of criteria for the eligibility of private partner, designs the program and partnership guidelines, and secures partnership with relevant institutions through the MOUs.

Conducting feasibility studies for the partnership: This role of public sector is most common in partnerships for technology transfers and innovation. The feasibility studies may include the analysis of market demand for new technologies, the input resources for production, end markets capacity for an

output product, environmental impact assessment, technology dissemination assessment, economic benefits analysis, financial risk analysis, ensuring regulatory compliance, and an estimation of possible investment in new technologies for each parties, etc.

Identifying risk sharing/mitigation in partnership process: Public sector will ensure that risk allocation between public and private parties is included in the production process. The risk transferring or mitigations may includes bank guarantees or subsidize interests on loans, purchasing contract security, business management training to help decrease the possibility of default risks, agricultural insurance and the available contingency funds for private partners.

Coordinating and facilitating negotiations: This role of public sector involves coordinating meetings and discussion between partners to ensure the clarification of partnership terms and agreements, monitoring and evaluation process, implementation of activities, an agreement on risk allocation, responsibility of each partner in case of *force majeure*, third-party contracting eligibility, terms of sale and minimum price ceiling for new technologies, as well as agreement on an ownership for the IP rights.

Providing Funding: The public partners are usually responsible for determine funding levels and schedule the time of fund releasing to ensure timely delivery of funds and avoid delay of activities. In some cases, public partner also help private partner with bank loans guarantee. Tax and nontax incentives for private partner were also offered under the project to facilitate the initiation fund for innovation and new technology.

Acting as project coordinator: The public partners may act as coordinators by overseeing project management at all stages, from concept development to end markets, supervising the flow of funds and selecting third party contractors. Public partners' responsibility usually includes coordinating

private partners with public institutions, networks, and services to provide private partners with necessary resources such as production infrastructure, research organizations, academic institutions, potential markets and extension services.

Acting as project facilitators: Food Innopolis itself was founded to primarily support the access of private company to necessary public infrastructure and equipments. The public partners in all cases under the project thus have a key role to facilitate the implementation of partnership, which includes providing support for technology development, access to public expertise, incubation for business development and startups, as well as access to government funds and special land permit for international partners.

Providing assistance and training: This role may involve technical and managerial assistance to support technology development, human resource development, and the commercialization of the output. By working with private partners in various stages of partnership, public partners may provide access to technology under license, potential areas for field trials and offer guidelines to visa application (for international partners) and IP procedures. Public partners were also accountable for private partners' access to talent mobility program, human resources and experts, and assistance for commercialization and multiplication or replication production process.

Leading research: In the cases of Food Innopolis, researchers, laboratories, infrastructures, and equipments were mainly provided by NSTDA. Linking to research networks, academic institutions, and other research facility can also be provided upon request. In most cases, public partner may lead the first phase of research for product development, then, private partner will be responsible for the second phase of field tested or production trials. Public partner may help private partner in latter phase by providing assistance for commercialization and conducting market research for instance.

Fostering and developing incubation services for SMEs and start-ups business: Public partners were tasked with SMEs and start-ups business capacity building services. Such services involve with raising awareness of the available facilities, support, and possible benefits of joining Food Innopolis project among smallholder farmers, farmer groups/cooperatives, SMEs, and start-ups business owners. The public partners were also responsible for fostering incubation for SMEs and start-ups business by providing access to credit facilities and government grants for investment, facilitating licensing process, providing business and technical training, bulking requirement to minimize transaction cost, and granting business privileges and special incentives.

Monitoring and evaluating the partnership: The public partners are often tasked with monitoring and evaluating activities. These activities usually include tracking progress of the project, monitoring the execution of business plan as agreed, approving fund release in designed timeframe of, ensuring that private partner are following the agreed guidelines, tracking certification status for private partners, and monitoring the overall relationship within the partnership. When the public partners retain ownership of IP rights, they will also be responsible for the private partners' sales record evaluation; as the basis for calculating royalty payments greatly involved with the sales volume of the ends products.

Private Sector's Roles

Complementarily to public partner's activities, the main roles that private partners commonly played in partnerships under Food Innopolis project are: Developing a business plan as guided by the public partners, preferably with thorough financial and market analysis; Contributing funding, in-kind

contributions, resources, or other kind of investment as agreed in the negotiation/preparatory phase; Preparing a market analysis for highly marketable new products or to determine the demand for new technologies/ innovation; Identifying a sound source of raw materials for the production phase; Implementing business activities as agreed and delivering results; Leading production and day-to-day operations of the facilities; Participating in the testing/pilot production or field trials of new technology prior to commercialization; Participating in commercializing and dissemination of phase; Supporting the monitoring and evaluating activities by preparing a report for a submission to the public partners; Negotiating IP ownership agreement and other licensing issues; and in some cases, the private partners were also responsible for providing an after-sale support services to the adopters of new technologies or innovations.

Conclusion and Recommendation

Despite the increasing interest in PPP among policy makers and Thai entrepreneurs, the study of how PPP has benefited and impacted food and other related industry is still lacking. Essentially, Thailand's academic literature has not yet caught up to the practitioner understanding of PPPs prominence in food industry. This topic has received much less interests and only has been discussed in narrow ways in the scholarly literature in Public Policy or Public Administration arena. Concrete contributions from other related disciplines such as Management Sciences and Economics also appeared to be limited. Given the evolving policy framework and ongoing organizational change within Thailand and the so-called government reforms, academic contribution must be further made to foster PPP in Thailand's food industry so that they can prosper over the country's long term political and social environment.

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