

Co-creation and Collaboration Network with “Value Chain from Upstream to Downstream”: A Case Study of Goatherd Group in Phuket Province

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Abstract

This research aims to improve Phuket's Tourism Strategies in order to enhance the ability to generate income and also to strengthen the local economy. In particular, the ability to enable local communities to be part of the tourism industry will contribute to the sustainability of tourism, community, economy and the society. The research team employed the participatory action research method. This is complemented with focused group techniques and learning exchange forums of 30 Phuket goat herders.

This began with techniques of the SIPOC model, supplier, input, process, output and customer analysis. It led to the follow up process of upstream, midstream and downstream to understand the overview picture of the research findings. The TREE scan was employed to analyze production routes. Cost factors, self-reliance factors and external factors were also used to complement the fishbone charts to analyze product development process, data processing and also its logistics. Customer Doll was employed to analyze customer target, distribution channels. Community Flower analyzed community capital and the SWOT analysis was also implemented in order to formulate the strategic development plan. The research found that there were changing situations. After the research implementation, there was an increase in networking partners from the public sector, who will co-create and collaborate in the strategic development plans and activities. There are also revised development strategies that has been improved from the original plans. Most importantly, there is a so-called ‘the goat value chain’ in Phuket, which was synthesized from the available data, tools and the participation of the Goatherd group, leading to significant force into the Phuket integrative plan, in order to realize area-based development that is linked to Phuket Tourism Strategic Plans.

Keywords: Phuket province, Value chain, Goatherd, Community based tourism

Current situation

Phuket is recognized as a major tourist attraction in Thailand. It is a world-class city, known as the Pearl of the Andaman, with an enchantment of decent white sand and uniquely remarkable Sino-Portuguese architecture. There are over 13 million tourists who visit Phuket annually (Ministry of Tourism and Sports, 2016), providing an industry which steadily drives economic growth. Besides the main flow of tourism, both domestic and foreign, who come for the sands and beaches, a number of tourists want to experience an authentic Thai style experience and Thai traditions, which are full of charm; these are highlights that can attract tourism. In the same manner as many world-class tourist destinations, local communities in Phuket have collaboratively developed their own area to become a learning center, enhancing their uniqueness and identity. Moreover, they have also opened their doors to visitors to generate revenue streams from tourism business management in the community, which has been well-accepted by the general public and tourists. It can be said that Community Tourism is a new phenomenon, allowing the option to meet the needs of customers in this century.

Tourists visiting the community usually purchase local products and souvenirs to support local residents, such as pasteurized goat milk, goat milk lotion, and goat milk soap, which are the products that Pracharath Raksamakee Phuket Co., Ltd. has supported, pursuant to the government's public policy (Prab, 2016; The Working Group for Local Economic Development and Pracharath Policy, 2016). Goat milk is rich in nutrition, containing proteins, amino acids, fatty acids, and other important nutrients for infants and elders. It is also an alternative for health-conscious consumers. There are 2 major types of proteins found in goat milk, including Caseins and Whey Proteins. Casein, especially Beta-Casein, is more abundant in goat milk compared with cow milk (Montilla et al., 1995), and has the ability to absorb minerals (Farrell et al., 2004) and to prevent diabetes, together with vascular and heart diseases. In consequence, goat milk has gained more popularity among consumers. The Goatherd Group, the Phuket Provincial Governor's Office, the Phuket Province Livestock Office, and academics from various institutes have participated in discussions to identify the best direction to drive the Goatherd Group in Phuket to become stronger and to grow sustainably

in the future. This is a solution that would urge and develop the grassroots economy, reduce inequality, improve the quality of people, create jobs, and generate income for goat farmers.

Our research team has continuously participated in various forums of the Goatherd Group, acting as academics from an educational institute. The government agencies and organizations in Phuket have brainstormed, and raised funding support for, goat farming activities. We have also been engaged in strategic planning for the development of goat products in Phuket, using 3 strategies: 1) the development of the primary production system, 2) the development of the secondary support system, and 3) the development of the tertiary value-added system. Given the gap of knowledge (Kaewthep, 2016) found from this strategic plan, together with integration of social work associated with research and academic services (Sirisathitkul, 2014), our research team has conducted a study of local goat farming related to economic activities that are linked with goat value-chain tourism, from upstream to downstream. It is expected that these findings will help modify, improve, and support various sub-activities of goat farming, along with local tourism, by the Goatherd Group, who are the true owners of the tourism resources, and who determining the procedures and direction, and are making decisions about, their own tourism form. Moreover, these findings will encourage the learning exchange between people of different cultures and areas, which may have both pros and cons and may deliver fair benefits from tourism to the local community. In particular, the integration of the way of life, custom, culture, history, nature, and conservation of the area will create added value to local tourism for both individuals and groups. Altogether, it will generate revenue, lead to sustainable development in the area, and benefit the grassroots economy throughout the local community, provinces, and nation.

Processes for change and acceptance from target community

By the end of 2016, our research team went into the Goatherd Group's community in Phuket to collect data and to analyze, synthesize, and use budgets from the Strategic Plan for Academic Services under the Development Program for Entrepreneurs and

Community Enterprises, Faculty of Science and Technology, Phuket Rajabhat University. Our team also conducted a brainstorm session and forum, so that we could collectively analyze the strategic plan of goat farming in Phuket and conduct supply-chain and value-chain planning for the Goatherd Group in Phuket. The research team employed the Participatory Action Research method by specifically selecting 30 goat herders from 33 farms across 3 districts in Phuket through the learning exchange forum, a continuous meeting arrangement as a forum for the Goatherd Group, the research team, and personnel from various government institutes to meet, discuss, and brainstorm. This was one of the tools used in quality development through the process of gathering opinions from various perspectives and suggestions. Moreover, it helped in stimulating creativity and group participation. Other tools were also used to summarize the illustration of ideas from the Goatherd Group.

Expertise used

Our team conducted a brainstorming session to host group activities to lead to our goal. We started by hosting a group activity, called “Goat building”, for all 3 groups. The purpose was to involve the Goatherd Group to allow us to jointly consider what good characteristics of goats are. Later on, we integrated the academic theory with an operational approach, together with employing

6 process tools, including: 1) the SIPOC model theory, which was used to collectively share the understandings of the linkage between upstream to downstream; 2) a Tree Scan, which was used to analyze the factors supporting both internal and external production; 3) a Fishbone diagram, which was used to analyze the products from goats and analyze the cause of problems; 4) a Consumer Doll, which was used to analyze consumers’ perceptions of products; 5) a Community Flower, which was used to analyze the cost related to 5 operational approaches, namely, natural resources; traditions, cultures, religions, and beliefs; human resources, local wisdom; and organizations and institutes, and 6) a SWOT analysis, as summarized in Table 1.

Operational procedure

Our research team started with the joint participation of all 3 groups, called “Goat Building” (Figure 1). The team provided 3 types of materials and equipment, which were plastic rope, newspaper, and masking tape, to the operators. After the implementation of this activity, the members collectively concluded that issues such as goat characteristics, quality breed, raising, feed, and amount of milk should be addressed and linked together to create added value for quality goat products that would meet consumer needs.

After the Goat Building was complete, our research team



Figure 1 Joint implementation of Goat Building

Table 1 Academic theory with operational approach and goal

Academic theory / Expertise	Goal
1. SIPOC model	To analyze and to find the value chain linkage; S stands for Supplier, which is an analysis of producer, market deliver, system analysis, production cost, self-reliance and external dependence, and production process; I stands for Input & Information, which is information that creates value or worth; P stands for Process, which means analysis of product development, product processing, information systems, product development, and logistic system; and O stands for Output, which means product processing. Beginning with customer analysis, C (Customer), following by S (Supplier), I (Input), and P (Process), the SIPOC Model helps to see the purpose, work process, and sub-work process in the main process by illustrating a flow chart diagram of the operation
2. Upstream: Tree scan	To analyze factors supporting both internal and external productions by dividing the trees into 2 groups; 1) Left-hand side is to analyze the self-sufficiency of the community without the necessity to purchase, or rely on, external factors, 2) Right-hand side is to be dependent on external factors. The objectives of the Tree Scan are listed as follows: (1) Root is used to analyze the cost of production, necessary things in investing in goat farming, breeders, and shelter, together with source of feed, water, and appropriate amount of grass to feed goats; (2) Stem is used to analyze the parenting period to production period, along with hormones, vitamins, and drugs used to cure diseases and nourish goats, and (3) Fruit is for analysis of the appropriate time to harvest, sales in various patterns, such as amount of milk, goat meat, goat hair, and goat leather, and reasonable price of sales
3. Midstream: Fishbone diagram	To analyze goat products, this tool is used to identify factors related to problems. After collecting the data, it is used to analyze to find the cause of the problem and the solution to it
4. Downstream: Consumer doll	To analyze who is a product consumer of the group, as well as product distribution channels. Consumer Doll is divided into two sides; Left side are the consumers who do not use, or refuse to use, goat products and often give negative feedback to them, while Right side represents consumers who have a desire for goat products. Given that (1) Head represents the consumer's attitude and perception of which should be approached and likely be offered the goat products, (2) Mouth represents the voice reflection of the consumer from those who still do not want the products and the features that the consumer wants, (3) Heart represents the character of consumers with good feeling and relationships, (4) Hand represents knowledge, comprehension, and knowledge in consumption, and (5) Foot represents way of living and consumer status
5. Community flower	To analyze cost of operation
6. SWOT analysis	To analyze the environment and potential of the Goatherd Group

Table 2 Results from the operational analysis

Analysis	Results from the analysis	Requirements and expectations of the Goatherd Group
<p>Production routes</p>	<p>1) To break even, the cost is as high as 140,785 Baht/goat at the beginning of goat farming. It may be necessary to raise a large number of goats, so that while the beginning of goat farming takes time and requires a high investment cost, it can break even in the long run</p> <p>2) The process of goat farming requires the standardization of caretaking; if any farm has a lack of care taken, it may result in a subsequent payout, as breeders are quite expensive and can be considered to be a risk to goat herders</p> <p>3) Reproduction of goats, development of breeds, and goat life cycle; the income from goat farming depends on the goat life cycle to raise baby goats until they can produce milk, in parallel to the development of goat products to continuously improve the quality of milk</p>	<p>Goatherd Group requires the academics to proceed with the analysis of cost factors for breed selection, the sharing of goat farming methods, and the standardization of goat farming, as well as the possibility of establishing a goat milk collecting center and processing center for goat products</p>
<p>Goat products</p>	<p>1) Goat milk can be processed into other drinks, which the Goatherd Group can do by themselves at present; for example, pasteurized goat milk; natural flavor or flavor added with strawberry, vanilla, orange, chocolate, coffee, or cocoa; fermented milk, and ice cream. Moreover, there are other processed products from goat milk for sale, such as bergamot goat milk shampoo, goat milk shower gel, goat milk soap, goat milk lotion, etc.</p> <p>2) Goat meat can be processed and sold as goat chili paste, goat curry, and goat stew</p> <p>3) Goat leather can be made into wallets</p> <p>4) Goat dung is often used as compost and bio-fertilizers</p>	<p>The Goatherd Group requires additional factors to be conducted in order to promote: 1) knowledge, procedure, research, and technology transfer; 2) tools and machines to support work processes or to reduce human labor; 3) milk collecting center, with processing, producing, storing, and selling; 4) education in and understanding of relevant international standards, such as the Bureau of Food and Drug Administration (FDA), Community Product Standards (CPS), permissible food and impurities under Islamic Law (Halal), Good Manufacturing Practices (GMP), etc.; 5) improve and develop proper and quality packaging; 6) develop management and storage systems and distribution, along with transportation; 7) strengthen marketing channels, local public relations, and online media relations, including finding a channel to allow entry into department stores, hotels, or other places that are appropriate and easy to access; and 8) drive to connect with Phuket in term of community tourism</p>

Table 2 (Continue) Results from the operational analysis

Analysis	Results from the analysis	Requirements and expectations of the Goatherd Group
Consumers of goat products	<p>1) Head represents attitudes of consumers who drink goat milk and meat, and often think that milk is smelly, that eating goat meat is fat, that the meat is sticky and expensive, and that there are no standards for food or products</p> <p>2) Mouth represents the voice reflection of the consumer, and is consistent with the attitude which may result from less communication and incorrect recommendations</p> <p>3) Religious beliefs, contributing to better sales and acceptance</p> <p>4) Hand, some consumers have a lack of knowledge of the value of and benefits from consumption of goat products</p> <p>5) Foot, some merchants produce imitation products or sell products without considering the quality, as well as those products which may have poor quality, reducing consumer confidence in the product, together with other external factors, such as consumerism and fast-food consumption. As a result, some consumers do not consider using goat products</p>	<p>Goatherd Group would like customers and goat product consumers to change their attitudes or perceptions of the products, leading to better confidence in goat products and more positive attitudes, including the possibility of increased health or relief from asthma or allergy. Given that goat milk is comparable to breast milk, consuming or using goat products can benefit health and skin and slow down aging. Goat milk is rich in protein, and can be used as a nutritious food, while other parts can be used as fertilizers, quality leather, or high-value house decoration. Therefore, public relations should be promoted to communicate this to the target customer, as well as to make suggestions and communicate to those customers who are reluctant to use goat products. The marketing channels used should be creative and constant and done via multiple avenues, including brochures, magazines, the internet, and exhibition booths, together with a focus on products from the Goatherd Group, which are produced by Goatherd Group to support the grassroots economy to be stable and sustainable</p>
Costs of operation	<p>1) Natural resources: the area of grass taken by goats is relatively small, while natural water resources are rare</p> <p>2) Traditions, cultures, religions, and beliefs: especially, the rituals of the Islamic community, in which goats are used for various ceremonies</p> <p>3) Human resources: most people of Chinese descent in Phuket use pork, duck, chicken, and fruit to make offerings in rituals, instead of goat meat</p> <p>4) Intellect and local knowledge: most operations of goat farming are from experience, along with experimentation, reproduction, and exchange of knowledge with the Goatherd Group</p> <p>5) Organization and institutes: understanding the operation and supporting the Goatherd Group</p>	<p>Sharing of grass for goats from other farms within the group, plus drilling groundwater to use during the dry season and using rain water in the rainy season to fill up water volume</p>

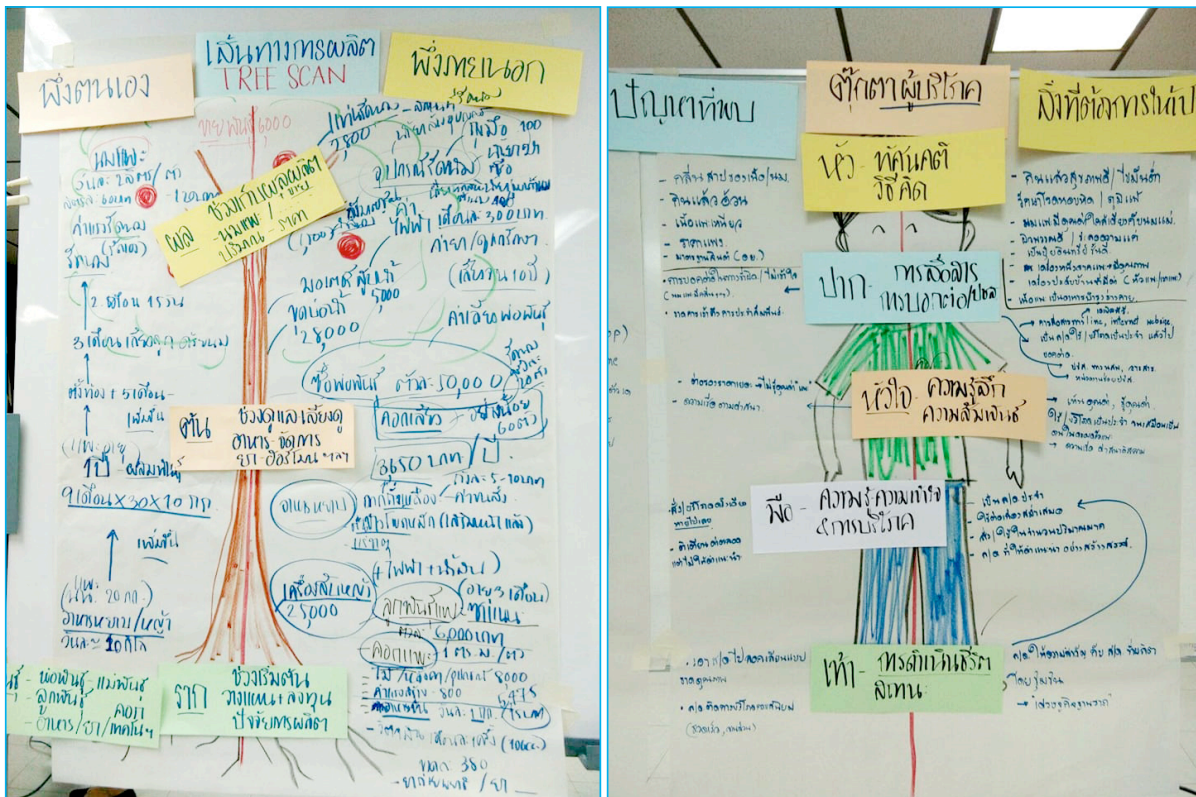


Figure 2 (a) Result from the analysis on production route using Tree Scan (b) Result from the analysis of consumers using Consumer Doll

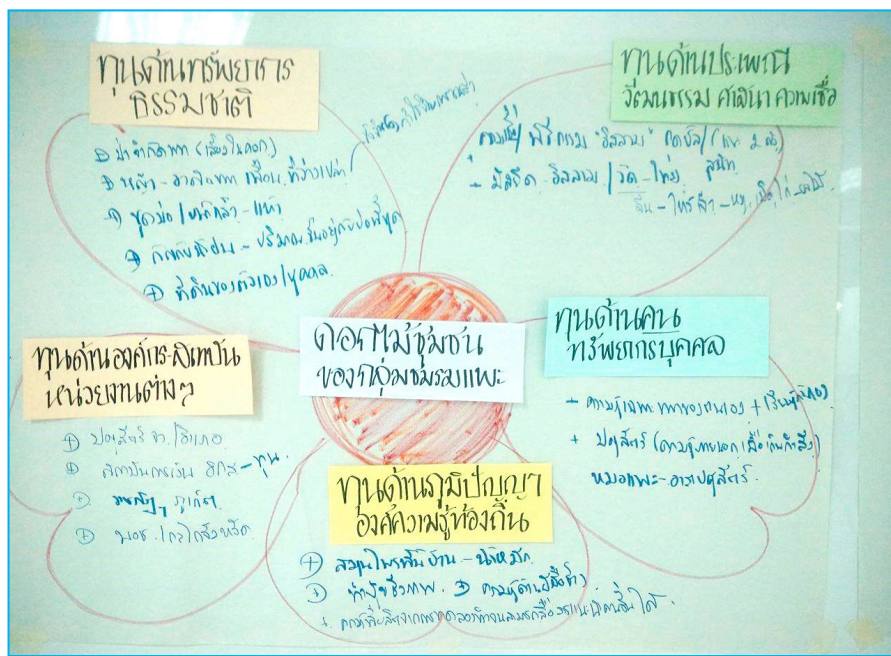


Figure 3 Result from the analysis on cost of operation by Community Flower

connected the results from the activity to understanding of goat production, from the beginning until the end of the process, by linking it to the content of the Supply Chain and Value Chain. Subsequently, our team divided the group and stakeholders into 3 groups for analysis. The results are shown in Table 2, Figure 2, and Figure 3.

After that, the Goatherd Group participated in an analysis of strength, weakness, opportunity, and limitation, illustrated in Table 3. The group collectively summarized the information to conclude the guidelines for the operational development of the overall group, for the present moment and for the future. The conclusion from the implementation, using 6 types of tools by working through the community forum and co-operation, can be summarized as follows.

1) Guidelines for the potential development of production systems: one approach can be implemented so that the Goatherd Group can obtain a standard to support the community tourism which may occur; namely, knowledge transfer, the good development of farm management, development of farm standards, health checks for goats, the feeding of goat breeds for milk and meat, the promotion of goat breed development, quality tests for goat milk, and increasing areas for grass, to save budget and for self-reliance purposes, together with promoting the standards of organic farming and goat farming in the prototype farms for value added purposes, cognitive knowledge, farm technology, feeding, health checks, and breed development.

Table 3 Results from analysis of strength, weakness, opportunity, and constraint

Strength	Weakness
<ul style="list-style-type: none"> - There is love and unity among most of the members - The Goatherd Group has a fundamental knowledge of goat farming - The Goatherd Group participates in group activities to exchange opinions, knowledge, and experiences in the meeting held on the 5th of every month - Each farm is a community enterprise - The channel of communication is the Line application - There is a clear management structure for goat farming - There is a savings group for goat clubs - The work location is at Moo 8, Baan Pru Champa, Thalang district, Phuket - The members regularly participate in group activities with support from external cooperation - When problems occur, the group relies on internal discussion first to find a solution - Giving suggestions, helping, and sharing among the group is encouraged - The members acquire new knowledge consistently - The group is supported by some government units 	<ul style="list-style-type: none"> - The Goatherd Group does not always participate in the meetings - Some of the members do not bring meeting resolutions for further proceedings - There is a lack of accreditation standards for the group - There is a lack of funding and savings due to the recent establishment - Because of time limitations, some members cannot participate in the group activities - There is a lack of continuous academic knowledge and technology transfer sharing - There is a lack of tools for goat farming - There is a lack of regular attention from government agencies, along with the right support to match with the group’s demands - There is a lack of government publicity, especially in terms of funding
Opportunity	Constraint
<ul style="list-style-type: none"> - Development as a community attraction to generate revenue and jobs for the surrounding community can be done - The group is strong and can be formed as a cooperation for operations towards a sustainable approach 	<ul style="list-style-type: none"> - There is a lack of mechanism and operation through the Strategic Plan - There is a lack of skills and experience in business management

2) Guidelines for the potential development of the Goatherd Group: for the group to have an approach toward strength, regular meetings to discuss any issues will be held on the 5th of every month, from 8 pm to 10 pm, which will also help to create unity among the group. The group members should give priority to the meeting, group activities, and all the farms, in order to recognize and solve problems together, which should be done as follows: 1) Gathering information and knowledge of each farm, and identifying what is important knowledge; mapping and prominent features of each farm; collecting and exchanging knowledge to elevate the cognitive knowledge of the group, and preparing a publication to allow people to know and understand more about goats, along with sharing with society; 2) strengthening the group's financial status or fund raising to drive the operation, and 3) enhancing the potential of the group in operations including production, process, market, knowledge, coursework, training, preparation for project proposals and activities, and obtaining budgets from both the private and government sectors.

3) Guidelines for the potential development of products and sales channels: used to become more well-known among

consumers; for example, conducting feasibility studies for the collection and distribution of group products; the possibility of arranging goat product showcases; guidelines for marketing and production development to access to all levels of the market; the development of food preservation of products to allow longer shelf lives; food product development to be more convenient; packaging development to become more interesting; obtaining accredited standards from the Food and Drug Administration, Halal, and OTOP (the One Tambon, One Product initiative); packaging design; and logistic system development of products from farms.

In addition, the results from the synthesis of the 3 guidelines, namely, guidelines for potential development of the production system, guidelines for the potential development of the Goatherd Group, and guidelines for the potential development of products and sales channels, done to enhance the operation in 4 different perspectives, are shown as follows, also illustrated in Figure 4–6.

1) **“Time”** the group should operate by focusing on time. Whenever delivering goat milk to customers, the quantity and place of delivery should also be considered, to reduce delivery problems

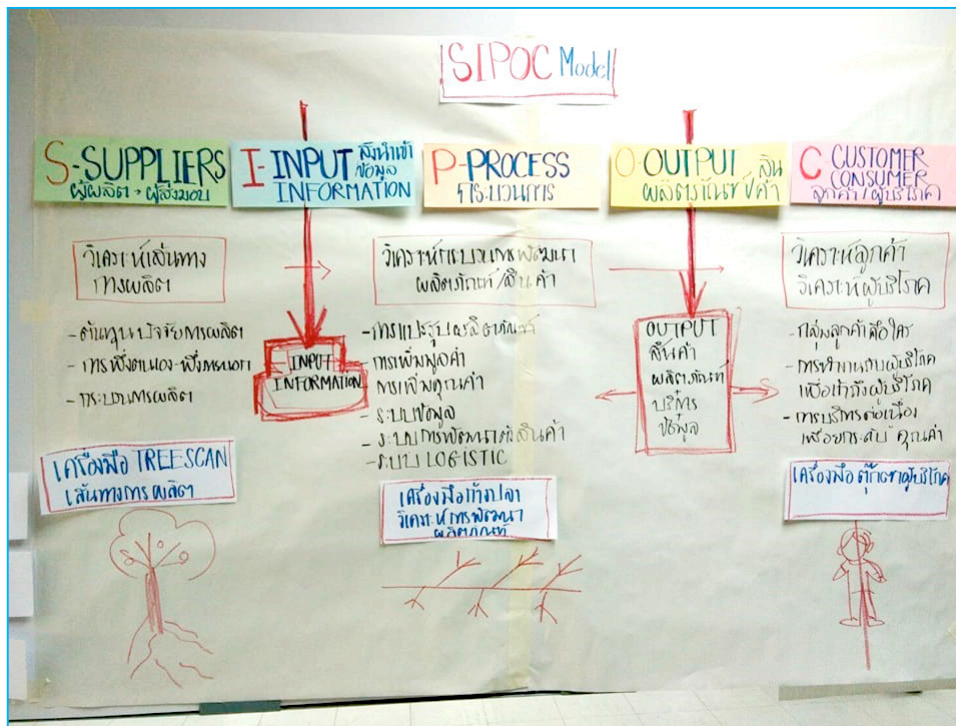


Figure 4 Perspective of value chain correlation

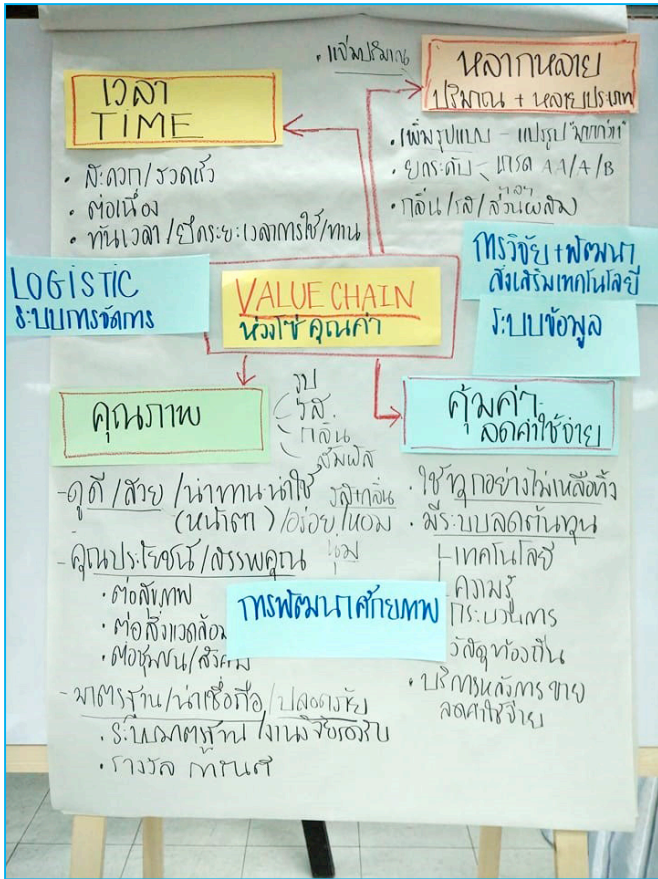


Figure 5 Perspective of quality synthesis

2) “Quantity” regarding the processing, there are things that should take into account, including, look, taste, attractive odor, soft and appetizing texture, and deliciousness, as well as benefits and properties, such as effect to health, the environment, community or society, an obtaining accredited standards to gain credibility from consumers. Moreover, application of innovation can add value to the products, along with the efficiency of the operational management system for group management, production systems, delivery and logistics, etc.

3) “Diversity” the product plan should include both quantity and diversity, increasing the presentation pattern of the Goatherd Group, product processing, the application of innovation to create options for customers, and the development of product processing to create diversity for sales channels and distribution channels

4) “Worthiness” using of or relying mainly on local ingredients can diminish costs. Leftover materials from the production process can be utilized to reduce cost and support the application of innovation and aftersales service.

The analysis is consistent with the research; the paper titled Business Excellence Model for Trading Development of Mango Fruit in Exporter Chachoengsao Province (Mungdech et al, 2016) analyzed



Figure 6 Value chain of goat forum in Phuket

that the value chain is an important factor that can help to achieve an operation goal, along with activity management of the fundamental value chain, the procurement of ingredients, production, product distribution to the market and sales, and customer service which leads to positive relationships with and positive operations of the Goatherd Group (Suwannaput et al, 2016). The result is even more pronounced when applying innovation to it; for example, innovation in product, process, management, or marketing. In addition, process improvement can help achieve the formation of a monitoring system (Khuankaew, 2017) to comply with relevant principles and standards. Some of the research also concludes that, when applying knowledge management to an operation, it will help to improve the efficiency of the management, i.e., applying knowledge management to increase distribution channels; searching for vendors; production planning, and new product development (Noknoi & Langthaehun, 2015), as well as emphasis on leadership, income, and trust, which altogether are the factors to success of knowledge management and community business pursuant to the value chain (Songleknok et al, 2015).

For allow development, the vision to follow is that of the 4–year Strategic Development Plan of Phuket (From 2018 – 2021), to become “The International Hub in Tourism Education and Innovation Value Based Economy” by 2036. The results from the analysis of the forum and activities of the Goatherd Group as stated earlier, to link with the value chain from upstream to downstream for goats in Phuket, suggests that the outcome is correlated, and supports the operation in term of community tourism. However, it is still necessary for both government and private sectors to support the operation, to monitor it, and to conduct evaluations regularly. This is consistent with the recommendations from community tourism research (Jirathamakul, 2016), which suggests that, to ensure the satisfaction of tourists and to create frequent visits, it is important to emphasize physical structure, having clear sight of base activities, time control of routes, activity details, local food, and souvenirs which reflect the uniqueness of the community. Furthermore (Ngampraphasom, 2016), other recommendations include having some support and curriculum to organize a training course for junior employees, to build and to develop facilities for tourist, to have basic communication training in foreign languages, and to link and to coordinate the activities with the surrounding communities.

Changing situation

The conclusions and details of the new situation that has been reached as a result of change to the operation, through monthly meetings and forums and, most importantly, cooperation to create a connection of value chain from upstream to downstream, are listed in Table 4.

Impact and sustainability of the change

1) The Goatherd Group

The Goatherd Group has come to a common conclusion for an operational approach in the upstream process, to adopt a standardized organic livestock by initially selecting 5–6 farms as prototype farms. The key is to adopt the Participatory Guarantee System, or PGS, to manage the group in an approach stressing quality. In addition, the Goatherd Group believes that this approach will build confidence and value in the consumers, creating stability. Other than that, applying the Philosophy of Sufficiency Economy to careers and living, combined with reliance of various factors for local goat farming and use of local wisdom as a substitute for chemical substances and high technology, will help the Goatherd Group to increase satisfaction, create balance in the ecosystem and environment, and allow for their own increased sustainability.

2) Policy: Operation plan

The Research team used all the relevant information from visiting the community area to search for their needs, and from the implementation of the value chain, in their presentation to the management of the Office of the Permanent Secretary, Ministry of Science and Technology, to obtain a supportive approach towards the operation planning of science and technology for the southern region (Fiscal year 2018 – 2021). From 12th–13th June 2017, it was fundamentally that there was the possibility of linking strategic planning for tourism in Phuket with goat farming, especially in terms of the application of science, technology, and innovation. Together with support from technology clinics and the university network in southern Thailand in goat knowledge from upstream to midstream, the value chain approach “Entire management of goat farming for tourism in Phuket” can be advanced.

Table 4 Comparison between the previous situation and the new situation

Previous situation	New situation
<p>Networks consisting of the Goatherd Group for goat meat and milk; the network of grass farmers for goats; veterinary volunteers; community organizations; the Provincial Livestock Office, the Provincial Agricultural Extension Office, and other government institutes; Biz Club Phuket, and Pracharath Rak Samakkee Phuket (Social Enterprise) Company Limited</p>	<p>Additional networks to previous situation include technology clinics; Phuket Rajabhat University; network associations; educational institutes; the Coordination Center, Ministry of Science and Technology for the Southern Region; the Office of Technology Promotion and Transfer; the Office of the Permanent Secretary, and the Ministry of Science and Technology</p>
<p>The Strategic Plan of Goat Product Network Development in Phuket includes 3 strategic plans:</p> <ol style="list-style-type: none"> 1) Development of the primary production system <ul style="list-style-type: none"> – Cost reduction for goat feed – Development of goat breeds – Solving goat disease problems 2) Development of the secondary support system <ul style="list-style-type: none"> – Farm standards – Fund development 3) Development of the tertiary value-added system <ul style="list-style-type: none"> – Value added for milk, dung, leather, hair, and goat meat – Continuous learning exchange process – Public relations – Development of knowledge for the Goatherd Group 	<p>Improving on and applying from the existing Strategic Plan of Goat Product Network Development in Phuket led to collaboration among organizations from various sectors to create the “Value Chain of Goat in Phuket”. This helps the Goatherd Group to understand both internal and external factors in a broader perspective and create interconnection not limited to only one point. In addition, the emphasis on the sourcing of ingredients until the delivery of products sub-activity chain will increase the product value more than the sum of values in each activity. Most importantly, the downstream activity should be emphasized to create value to the customer, which is consistent with the Strategic Development of Phuket</p>
<p>The Strategic Plan of Goat Product Network Development in Phuket only states the activity plan, purpose, procedure, and responsible person for the operation. However, it still lacks important factors, including linkage from upstream, midstream until downstream in the form of value chain, as well as consistency with the Strategic Development of Phuket</p>	<p>“The Value Chain of Goat in Phuket” can be proposed to the Southern Integration Plan (for the mission relates to the ministry and department level) or to the provincial operational development plan, together with presenting the linkage of upstream, midstream to downstream, which is consistent to the Strategic Development of Phuket</p>

3) Network association

A government network association in Phuket has been formed to support the operations of the Goatherd Group, in terms of upstream, midstream, to downstream and the private sector, to be responsible to society and support goat products in department stores

4) Academic matter

Researchers from Phuket Rajabhat University have disseminated knowledge from research, such as technology

transference, product processing from goat milk, and the design and development of packaging. They have also allowed the formation of an approach for new research topics, including the development of a production process for goat meat and milk to create added value towards food safety and tourism, the collective development of organic livestock farming with PGS, the study of the possibility of the establishment of a milk collecting center in Phuket, the design of a processing factory for goat milk, etc.

Acknowledgement

Our research team would like to thank the members of the Goatherd Group (goat herders) in Phuket, and the management team, for budget support for the operation, of the Development Project of Entrepreneur and Community Enterprise, the Faculty of Science and Technology, under the strategic plan of Phuket Rajabhat University. We would like to thank Ms. Waraluck Chaitup and Ms. Nujirat Pewkam as our designers, procedure arrangers and designers of collective analysis tool; Top Management of Phuket; and the Provincial Livestock Office for their understanding, promotion of, and support for the operation of the group to become strong, along with giving opinions, making improvements, and encouraging several activities to happen. We would like to also give special thanks to the management of the Office of Technology Promotion and Transfer;

the management of the Office of the Permanent Secretary, Ministry of Science and Technology; the working team of the Coordination Center, Ministry of Science and Technology for the Southern Region for their support of the value chain of goats that leads to the operation plan of science and technology for the southern region (Fiscal year 2018 – 2021). Our team would like to thank the management team of Central Pattana in Phuket, with the working team of Creative Shared Value (CSV), who saw the importance of goat farming operations, offering space for the trial selling of processed goat products; the Cultural Research and Development Center, for their offering of space and office tools throughout the work; and the government institutes in Phuket, for their cooperative work in well-establishing the strategic plan and value chain of goats, and for allowing the research team to successfully accomplish this research work.

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