

Enhancing Manufacturing Competitiveness for One Tambon One Product Producers Through Value Chain: Case Studies in Chachoengsao

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Abstract

The objectives of this research were to study and enhance manufacturing competitiveness of One Tambon One Product (OTOP) producers, through value chain perspectives. Although OTOP scheme has been supported by the government and many organizations in recent years, most supports were for market opportunities. This research aimed to explore any manufacturing competitiveness OTOP producers might have, and seek to enhance it through value chain perspective. The population of this research were six local OTOP producers based in Chachoengsao; including the ship-model handicraft in Tambon Tha-Kam, the Thai musical instrument maker in Tambon Hom-Sil, the artificial-flower handicraft in Tambon Bang-ka-nark, the herbal-slipper producer in Tambon Namdang, the wooden-and-horn accessories producer in Tambon Nakorn-nueng-khet, and the woven-basket producer in Tambon Lam-pradoo. The methods used in this research were interviews, observation, and participation.

The early results indicated that although these OTOP producers were skilled in their crafts, their other manufacturing practices were still some distance away from international standards. This was most evident in their manufacturing processes, the way most products lacked of standard commercial packaging, and their distribution channels. The researchers sought to enhance these via value chain perspective. In this regard, the manufacturing procedures had been studied and documented as operations standards. Not only these acted as a guideline for assuring product quality, they also helped each producer transfer their skills and knowledge to their operators more effectively. Packaging for each type of products was also designed and implemented. In addition, after business environment of each producer was analyzed, a business plan was then developed based on value chain concept, stressing the values added into products via designs, manufacturing processes, packaging, etc.

Keywords: OTOP, Manufacturing Process, Handicraft

Introduction

One Tambon One Product (OTOP) has been promoted by the royal Thai government in recent years. The objective of the OTOP scheme was to increase local product outputs, thus generating more incomes for local communities. Prior to the scheme, products were often made and sold locally, through local tourisms and other sales channels. OTOP scheme was aimed to improve this by promoting and branding

previously unnamed products. Nevertheless, due to various details and operations of OTOP products, the government could only promote OTOP as a holistic scheme. Therefore, there have been a number of projects undertaken to improve business performance of OTOP. In addition, OTOP could usually be classified in various terms; geographical locations of Thailand, product-type categories, quality levels (stars), and so on.

Chachoengsao is a province located next to the eastern side of Bangkok. It has over one hundred OTOP producers in the area. These producers were categorized by product applications, e.g. foods and snacks, art souvenirs and handicrafts. Initial information indicated that although OTOP producers were skilled and experience in their crafts, they often lacked business plans and approaches that essential for competing in domestic market and beyond. Thus, this required a study to enhance the manufacturing competencies of OTOP producers.

This research project was funded by the Higher Commissioner of Education, in the fiscal year 2004 and 2005, to study and enhance manufacturing competitiveness of OTOP producers particularly in souvenir and handicraft categories in Chachoengsao province.

Research Methodology

The objectives of this research were to study and evaluate current manufacturing processes / procedures of OTOP producers. Secondly, to develop standard manufacturing processes for art handicraft and souvenir producers. This was to ensure product quality and create standards for workplace. Thirdly, to develop business plans / approaches for OTOP producers. Fourthly, to evaluate business understanding of OTOP producers.

As the main objective of this research was to enhance manufacturing competitiveness of OTOP producers, particularly for handicrafts and souvenirs producers in Chachoengsao, a qualitative approach was adopted. The research was divided into two parts, due to limited number of human resources and time. Each part consisted of three OTOP producers, and was funded separately by the Higher Commissioner of Education. The participating OTOP producers were chosen from a list of OTOP producers provided publicly by the Chachoengsao Administration Office. These producers were then approached individually by the researchers, and inquired of their availability and willingness to participate in the project. The research was then undertaken by using observation and participation methods for data regarding the manufacturing processes. Data was subsequently analyzed for developing business plans and approaches (that contribute / consistent with manufacturing competitiveness (competencies) that had been improved). Value chain was the key principle for the approach / perspective

Results

By using the methods mentioned above, the results could be discussed according to the products as follows:

Ship-model handicraft in Tambon Tha-Kam

The handicraft in Tha-Kam produced ship models that were made from woods. Product range consisted of olden-day yachts, passenger ships, small boats, etc. In terms

of the number of employees, the ship-model handicraft was easily the smallest OTOP producer taking part in this research with the total number of one employee. The owner / producer of ship-models was a retiree, who started this business ten years ago following his retirement. The owner learned woodwork skills by himself, combined with his experience from working with boats and ships. Tools and equipment were simple and basic woodworking. Raw materials consisted of blocks of solid woods, fabric sheets, glue, paint, etc. Manufacturing processes began with drawing rough outlines on a piece of solid wood, rough cutting, sanding, polishing, painting, and finishing.

The problems of this OTOP producer were as follows. First, product distribution, having no employee, the owner accumulated his works and sold them at a selling place. Any advertisement or information available to public had been provided by the local administration. Secondly, manufacturing knowledge: the owner had no conventional ways to pass on the knowledge of manufacturing ship models. Thirdly, the products did not have packaging. The fact that they were consisted of small and fragile parts, without proper packaging, these could be easily broken.

Thai musical instrument maker in Tambon Hom-Sil

Similar to the ship-model handicraft, Thai musical instrument producer was a group of six retirees. Began with the love for Thai musical instrument, they had been producing fiddles and zithers since 1992. Main materials were solid wood, coconut shells, and leather, which could be sourced locally. The leader of this OTOP group had accumulated small wood-working machines, such as circular saw, band saw, a small lathe machine, etc.

Based on the observation, the problems of this OTOP producer were the lack of product distributing channels. They relied mainly on personal contacts with schools and occasionally on events associated with local administration. In respect of their products, they lacked measures to ensure the quality of their products, nor did their products have any standard packaging.

Artificial-flower handicraft in Tambon Bang-ka-nark

The producer of artificial flowers was a group of housewives, who undertook works in their spare time. Because of their non-business nature, the leader of the group was in charge of taking customer orders, assigning jobs to members, arranging product distribution. The leader was also responsible for other important tasks such as developing new work methods, training other group members, checking product quality, and so on.

The problems of this producer were; firstly, the difficulties of knowledge transfer when there were any new designs or working methods, resulting in product quality and lead-time. Secondly, sales channel: currently the producer relied on single distributor who transported the products weekly to retailers in Bangkok.

Herbal-slipper producer in Tambon Namdang

The slipper producer was a group of housewives and local members who worked on their spare times. Raw materials consisted of gourd, and other locally-sourced herbs. These were dried, cut, and then woven into a sole of slipper. This was then sewn together with pieces of clothes, to complete the process. The leader of the group sought to improve their manufacturing processes as well as increasing their commercial opportunities. The difficulties of this group were that they lacked

equipment to shorten their lead-time, and they often needed to rotate their staffs according to availability.

Wooden-and-horn accessories producer in Tambon Nakorn-nueng-khet

The producer of accessories was a group of local members. The products were made of woods and animal horns. These were usually attached together, cut, polished, and painted, according to pattern, style, size of each product. The process involved basic wood-working tools such as circular saw, lathe machine. The owner was responsible for new design and development of new products.

Woven-basket producer in Tambon Lam-pradoo

The producer of woven-baskets was also a group of local members. The products were made of dried parts of coconut tree and bamboo. As they were made with skilled handicrafts, they found it difficult to increase the volume. From their perspective, this partly stemmed from the absence of any document regarding manufacturing procedures and processes.

Value Chain Approach

To improve competitiveness of these OTOP producers, three measures were undertaken from value chain perspective. First, it was considered essential for every producers to document their manufacturing processes. This was to ensure product specifications and manufacturing standards for all the products. Not only these documents could be employed for eliminating confusion caused by producing different product models, each producer was able to examine the relationship between their manufacturing processes with the quality of their products. The standard handbooks were also beneficial for training any apprentice or helping hands that involved in the manufacturing processes. Further results were also expected that the producers were able to use these handbooks to revise, and thus improve their own processes.

Secondly, many products previously did not have any packaging, except from transparent plastic bag that preventing dust. Therefore, for each producer, products were measured and categorized into groups according to their dimensions and weight. Conforming with industrial standard for packaging, cartons and packaging materials were then designed and implemented with the products, such as 2-ply and 3-ply corrugated cartons for lightweight and heavy products respectively. This approach had been considered as a starting point of each producer in developing proper packaging materials that would match their requirements.

Thirdly, as noted that although OTOP producers were skilled in their crafts, their understanding for business competition were often limited. Thus, business plans were outlined for each individual business. Tools for further business opportunities were also developed, such as business cards, product brochures, packaging, etc.

Conclusion

OTOP scheme had been hugely successful in promoting locally-made products to national and international levels. Although a number of OTOP producers gained benefits from this scheme, quite a few were unable to achieve as much, mainly due to their non-business backgrounds. In a way, they could be compared similarly to a new business starter, except for their manufacturing skills. Therefore, this research was

aimed to enhance these skills by focusing on manufacturing competitiveness. The researcher and OTOP producers took part together in analyzing what processes had important values to the products. Furthermore, business plans were derived by each producer to ensure that the focus on customer would be reflected on the products and the manufacturing processes. Although there had been a number of developments made on manufacturing processes and respectively business direction, there should be a continuous plan to develop OTOP producers, in order that they could improve and compete more effectively.

References

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