

Project of Community Industrial Handicraft Products and Packaging for Prosperity in Nakornayok Province

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Abstract—The purpose of this research is mainly focused on the development of the community products which allow the community people to be able to rely on themselves. This research is categorized into 3 parts including 1) group data collection through field research 2) the development of the products 3) bringing the products to market test with the collaboration between the community product development experts and the community manufacturers who own the industrial hand-made products. According to the research's result, every community product group can be expanded to become brand new products with new packaging, and new emblems. The product development enhances the uniqueness of the product groups and make competitors find it hard to pirate. Some quality products have potential for export. Based on the study result, it is also found that in order to get the products be at their high competitiveness in extensive levels of markets, it is necessary that the manufacturers of the similar types of the community products must cooperate with one another. Such cooperation can be in a form of cooperative manufacture, sales, investment, or joint venture, which are vastly beneficial to the members of the group.

Index Terms—community industrial, handicraft products, packaging

I. INTRODUCTION

The project of community product development and its packaging for well-being is in accordance with the Thai Government's policy. It strategizes to boost and support the community people to be able to help and rely on themselves by the use of their own expertise in terms of managing and mutually helping their own community as well as their neighboring community [1]. This practice accommodated by the Thai Government will help bring in existing knowledge and new skills to the people in the community. It also results in common benefit that enhances their social life, well-being, economics progress, resource management, and public environment, which are in accordance with the sufficiency economy philosophy.

II. OBJECTIVE

1. Build up and increase the knowledge concerning community products at all aspects including management, production, research, product development, and the use of appropriate technology that match with the local intellect. These will grow the competitiveness capability at all levels and will lead to better income for the community.
2. Encourage the unique innovation in the community products. Such innovation must illustrate the uniqueness of the community through the combination of the production techniques, the local intellect, and the use of the community's raw materials.
3. Encourage the brainstorming and the collaboration among the community people that are important to new community product development. The community plays a significant role in terms of development, whereas the Government gives back-up support. This method strengthens the mutual bonding and cooperation in the community.

III. SCOPE OF THE STUDY AND RESEARCH METHODOLOGY

The group of local community product manufacturers in Nakornayok Province who were selected by the Industrial Associate were those who produced non-food products including: 1) resin doll 2) Thai house replica 3) shell handicraft products 4) handicraft flowers from the Khao Nang Buat community group 5) BK candle group who was eligible for manufacturing but was still lack of product uniqueness capability for higher level competition.

IV. WORK PROCESS AND WORK RESULT

Work processes were divided into 3 parts:

Every step mentioned above required teamwork between the product development experts and local community people who manufactured the handicraft products. The result of each process can be summarized as follows;

A. Part A): Group Data Collection Through Field Research

This was an important process that aimed to study the potential of the community group who joined the project before the product development was employed. For the field research, the researchers had the community platform for the 5 selected community groups to exchange knowledge and opinions [2]. The members and the leaders of each group gave insights and information about the issues they were facing, and proposed possible solutions. There was also SWOT analysis discussion aimed to scrutinize the internal factors and the external factors the groups had encountered such as group management, production, product development, marketing, and the Government support. Moreover, the researchers interviewed the managers of each group along with their members by the use of questionnaire purposed to get the opinions of the target groups particularly on the main factors that could lead the groups to success. The result of the questionnaire showed that:

1. Group management relied on the capability of their leader and their committees.
2. Production management heavily concerned quality management and quality standards.
3. Product development heavily depended on the product's quality.
4. Marketing management counted on on-time delivery.
5. Fund and money management was about the allocation of benefit among the members.
6. The Government support was about continued training and regular event attendance. These would increase knowledge and develop new perspectives of the groups [3].



Figure 1. Resin doll group has 2 original products which were resin candle base (small size and big size), and 4 styles of entertaining resin Thai doll. These are trademark-registered along with their original packaging.

Conforming to the information analysis regarding the success of the groups, the target groups achieved the most in building up their team unity and strength. The

other achievements included that the group took pride in them and were willing to inherit their local intellect, enhancement of nature conservation, improvement of community surrounding, upgrade of their well-being, and their career development for better income.



Figure 2. Thai house replica group has 2 original products including Thai-house replica wall clock and Thai-ship replica wall clock. The group also has their trademark registered along with their original packaging.

As stated in the study result done on the 5 groups by the use of the questionnaire aimed to evaluate the possible competency of the one product group in the one subdistrict (or OTOP: One Tambon One Product) performed by the OTOP committees, it was found that there was no group with outstanding strength. However there were 4 groups with medium strength which were the Thai house replica group, BK candle group, Resin doll group, and the group of the handicraft flowers made from the filling of Thai cassava. On the other hand, the least strong group was the shell house group.

According to the market needs on the industrial handicraft community products, it was found that consumers preferred to buy such products during tourism seasons particularly from end of the year till beginning of the year period. Consumers from Thailand and from foreign countries mostly purchased such products as souvenirs. Their buying decision was based on product style, its pleasant-looking packaging, portability, its usability in every day's life, and its reasonable price.

B. Part B): Product Development

This was a continuous process from the group's potential analysis which was aimed to locate the manufacturing strength, raw materials, manufacturing technology, and product pattern. All these were put into consideration with the market needs of each product. Then the information from each side was deployed to generate the ideas in product development.

The product development method used by the researchers was workshop training. They invited at least 2 members of each group for the workshop training [4].

The content of the training comprised design of the logo and trademarks, product slogans, trademark registration, packaging design, and manufacturing of the original products. The producer groups brought in their raw materials and equipment, then brainstormed to come up with new products, and then brought back the knowledge learnt from this workshop to their own community to develop their original products to be more effective. This process took about 30 days after the workshop. The result from this activity was positive; every group successfully had their own unique trademark that was well registered. The new products inclusive of the products, labels and packaging could be seen as follows [5]-[7], see Fig. 1-Fig. 5.



Figure 3. Shell handicraft product group has 3 original products which are turtle-shell candle base, aromatic candle base, and ocean-marine life with coconut shell candle base. The trademark is registered together with its original packaging.



Figure 4. Artificial flower handicraft group from Khao Nang Buat has 2 original products which are artificial flowers made from mahogany flowers and the perfumery artificial flowers made from the filling of Thai cassava. The trademark together with its packaging are successfully registered.



Figure 5. BK candle group has 2 original products which are aromatic candles in a coconut shell (small size and medium size) and T-Light candle set in a silk box. Their trademarks and packaging are well registered.

C. Part C): Product Market Tests

After the product development process which resulted in new product with its original packaging, it was vital to bring the products for the market test. The market test methods included questionnaire filled in by consumers as well as trial selling at the community shops in Nakornnayok province like Srisunee shop and Charoensri shop [5]-[7]. These shops sell products to tourists. National market test took place at the Jatujak weekend market, JJ mall in Bangkok, and the OTOP mid-year sale event at IMPACT exhibition hall. Global market test took place at the Thailand Exhibition at Cape Town International Convention Centre, Cape Town, South Africa. Besides, the researchers made printed public relations materials to promote the products during all levels of the market tests, and hoped it would reach the extensive target market groups. The printed materials were the A3 4-coloured pamphlets containing the details of the project, product details and how they were developed, as well as the contact details of each community group. Furthermore, there was inkjet pop-up display and the uniquely designed logo of the project for easier recognition and increasing product differentiation in the mindsets of the target groups. Please see the details as follows, see Fig. 6 and Fig. 7.



Figure 6. The public relations brochure



Figure 7. Pop-Up Display during the market tests

According to the feedback from the market test, the best-selling products were the turtle-shell candle base, the ocean-marine candle base, the Thai-house replica wall clock, the Thai-ship wall clock, a set of aromatic candles, resin candle base in a silk box, aromatic candle in a shell box, resin candle base, entertaining Thai dolls, and the pleasant-smelling flowers from the filling of Thai cassava. The products qualified for export included aromatic candles in a shell container, a set of aromatic candles with bases in a silk box, and the coconut shell candle base [5]-[7], see Fig. 8- Fig. 10.



Figure 8. Market test at Srisunee shop in Nakornayok province



Figure 9. National market test at OTOP mid-year sale event at Impact exhibition hall

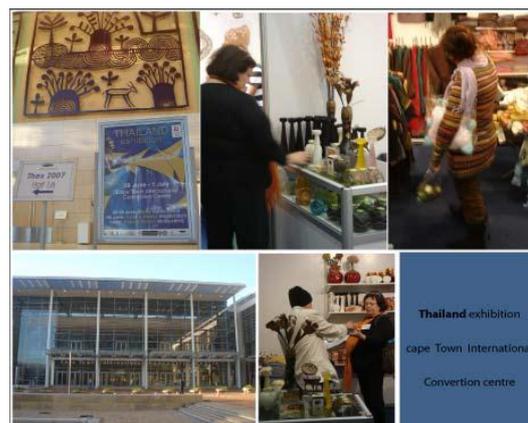


Figure 10. Global market test, Thailand Exhibition, Cape Town International Convention Centre, Cape Town, South Africa

V. CONCLUSIONS

In order to enhance the competitiveness of the community products to match with various levels of markets, it is vital to have collaboration among the similar and/or the same products manufacturers such as spa product group, souvenir products used on a daily basis to name a few. Then form a group that helps one another to manufacture, sell, funding, or joint venture. This will benefit the group as follows;

A. Manufacturing benefit: by grouping the similar types of products to manufacture together can lead to consistent quality control and good quality management under the common standards. This also helps to reduce the manufacturing cost. When producing in larger quantity, the bargaining power to raw material sellers is augmented. This means the group can buy raw materials at lower prices.

B. Marketing: Marketing collaboration at all market levels helps to reduce the marketing cost and also can better steer at the right target markets no matter from very local markets, provincial markets, national markets, and global markets. The product development stemming from the immense perspectives of staff will combine new manufacturing techniques from each different group to build up new products that are not easy to pirate. Brand recognition and product image-building are built and increased in the mindsets of the consumers. Also, products come with good quality and with on-time delivery as well as a good distribution system.

C. Work management for better flexibility: The gathering of community people from the different groups will fill up the gap that each individual group may lack of. It also helps to enhance the competitiveness.

D. Funding: when the group of partnership becomes bigger, locating funding sources becomes much easier. The work of the bigger collaboration holds significant accountability, has less risk, and likely gets more attentive support from the Government.

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REFERENCES

- [1] Department of Industrial Promotion, *Thai Handicraft Product Design*, Bangkok: Dansuta Printing, 1995, p. 446.
- [2] M. Baxter, *Product Design: A Practical Guide to Systematic Methods of New Product Development*, Chapman & Hall, 1996.
- [3] A. Panuratand and the team, *The Project of Basketry and Handicraft Flower, OTOP Research*, Cooperative Promotional Department, 2003, p. 251.
- [4] W. Leesuan, *Handicraft and Local Equipment Dictionary*, Dansuta Printing, 2005, p. 352.
- [5] N. Boonwong, *Design Concept*, Bangkok: Chulalongkorn University Printing Press, 2002, p. 226.
- [6] P. Wongsingthong, *Methodology of Product Development and Design*, Bangkok: Chulalongkorn University Printing Press, 2002, p. 249.
- [7] M. Sassananun, *The Product Design for Innovation and Retraced Engineering*, Bangkok: S.S.T Printing Press, 2003, p. 323.



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