

Barriers of Value Chain for Development of Silk Product in Nakhonchaiburin Zone, Thailand

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Abstract. Silk enterprises of Nakhonchaiburin zone or lower northeastern provinces are well qualitative and famous source for woven silk. Herewith, it is found that 90% of expert in woven silk is accounted for insufficient of learning in market data and the processed knowledge including limited uses. Therefore, this work aims mainly to study barriers of primary activities for value chain of silk product and to find the developed approach of silk product for silk enterprises in Nakhonchaiburin zone to compete silk product in both national and international level. In this study, Nakhonchaiburin zone is used to be the study area that includes four provinces (Nakhonratchasima province, Chiyaphum province, Burirum province, and Surin province). Consequently, silk enterprises for Nakhonchaiburin zone show that impact levels of primary activity in value chain process include the first barrier problem of sale and marketing with 4.35 of mean and 0.80 of SD, the second of inbound logistic with 4.10 of mean and 0.69 of SD, the third of production or operation with 4.02 of mean and 0.68 of SD, the fourth of outbound logistic with 4.01 of mean and 0.78 of SD, and the last of service with 3.99 of mean and 0.78 of SD. Such results is differ from other related researches in term of barrier or processing problem such as insufficient of raw materials (or imported from another province) and the mistaken process (e.g. color dyeing not relevant to customer requirement).

Keyword: value chain, silk product, silk enterprise and Nakhonchaiburin zone

1. Introduction

Presently, silk industry is important industry for Thailand where is well qualitative source of woven silk and silk product. The Queen Sirikit Department of Sericulture year 2000-2009 [1] surveyed export data of silk with average 923.40 million Baht that the highest of silk kind was exported by totally average 536.16 million Baht for woven silk. In year 2001-2009, The Queen Sirikit Department of Sericulture reported that the silk data was exported by totally average 286.72 million Baht and in year 2010, the export of silk data is totally average 292.56 million baht with jacket, blouse, shirt and shirt-blouse. Herewith silk and silk product are the highest-exported of goods value that trend is increased continuously. In addition, Agricultural Research Development Agency year 2004-2006 [2] surveyed the export data of silk for international market, was found the important factors that were price and quality for goods. Herein, the important competitions of Thailand are China, India, Brasil, Itali and Veitnam respectively.

Silk enterprises of Nakhonchaiburin zone or lower northeastern provinces in Thailand consist of Nakhonratchasima province, Chaiyaphum province, Surin province and Burirum province that are well qualitative and famous source for woven silk with 80%. Herein, the most of small industry in households based on man made in all produced processes is started from upstream to downstream. Then, the primary evaluation is found silk enterprises of Nakhonchiburin zone is mostly 90% with expert for woven silk [3] that is found with insufficient of learning and need of market data, and processed knowledge and limited uses. Importantly, contribution of silk enterprises in such zone can be creative silk product for competing and distribution in both national and international market based on sustain.

2. Literature Review

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This research studies concept of value chain and the related researches that determine concept frame in this study as following. Michael E. Porter's value chain model [4] is importance in determining specific activities to help organizations in gaining competitive advantage and building their value. These specific activities are divided into two: Primary and Support Activity. The primary activity define the activities for the firm to fulfill its role in the industry so its customer are satisfied; the support activity are necessary to control and develop the business to indirectly add value. These two activities should be managed effectively in order for the product or service delivered to the customer to add value to the activities of the organization to gain profit and competitive advantage. Thus the organization should search for the areas to create value within the firm.

In addition, this research is related to supply chain of silk industry that is studying for supply chain of silk industry in Nakhonratchasima province, Thailand [5]. Herein, it is found that the tackles of supply chain: (1) insufficient of raw materials (they are imported from other provinces), (2) the second is insufficient of producing management with value adding, for example, pattern design, dyeing, and weaving including market problem of distribution channel for small silk enterprise. Rasjirang and Kanjana [6] studied supply chain management to add potential for competition of Thai silk in case study for partnership limited of Thai silk. The objective of such case study is to analyse problem of supply chain for silk industry that consists of (1) producing process (e.g. dyeing mistaking to requirement of customer and misunderstand of worker for machinery and (2) insufficient of production capacity in some times such as insufficient of enterprise in production capacity planning, labor insufficient and insufficient of raw materials.

3. Methodology

Objective and scope of research in this research are to study barriers of primary activities for value chain process of silk product that find out development of silk product for silk enterprise in Nakhonchaiburin zone based on surveying of silk enterprises four provinces: Nakhonratchasima province, Chiyaphum province, Burirum province, and Surin province. The benefit of this research is, to know a variety of barrier in primary activities for value chain process, to be taken by the related agencies for planning development of silk product. According to objective and scope of this research, there are two sources are Primary Data and Secondary Data that are interview of silk enterprise in above four provinces of Nakhonchaiburin zone with total 117 people. In data collection, this research was operated in September-October 2011 based on questionnaire that were created with value chain model, is concept frame for primary activity of value chain including Inbound Logistic, Production or Operation, Outbound Logistic, Sale and Marketing and Service. finally, these data were analysed to find out the important barriers.

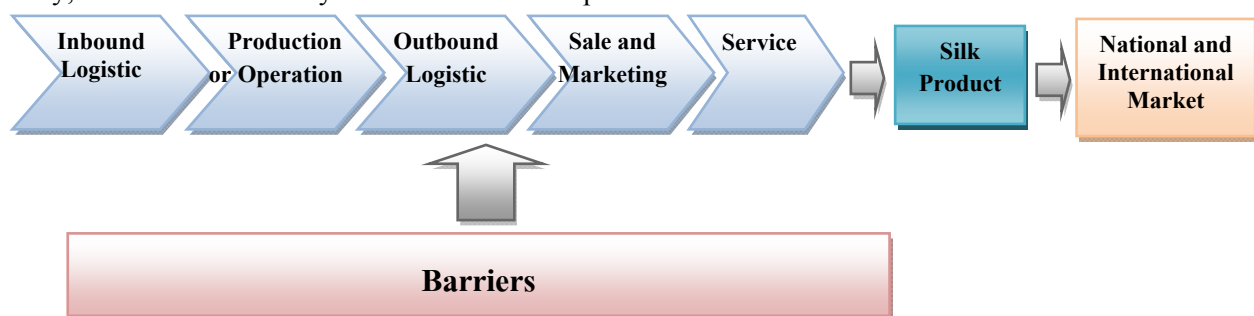


Fig. 1 : Research Model : Barriers to silk product in Nakhornchaiburin zone

4. Result

As a result, primary activities of value chain process in five activities, are found that

- **Inbound logistic** (Mean 4.10, S.D. 0.69) is the first of highest barrier including the highest price of Raw data (Mean 4.40, S.D. 0.71), the second is non-standard silk thread (Mean 4.40, S.D. 0.67)
- **Production and operation** (Mean 4.02, S.D. 0.68) is the first of highest barrier with enterpriser no have equipment, tool for modern producing to goods producing (Mean 4.12, S.D. 0.68), the second is knowledge for product development and limited packaging (Mean 3.93, S.D. 0.68)

- **Outbound Logistic** (Mean 4.01, S.D. 0.78) with the highest barrier is insufficient channel in goods distribution (Mean 4.08, S.D. 0.77) and the second is power insufficiency of price negotiation to middle merchant and direct consumer (Mean 3.95, S.D. 0.79)
- **Sale and Marketing** (Mean 4.35, S.D. 0.80) with the first highest barrier is new market (Mean 4.35, S.D. 0.80) and the second is data insufficiency in modern market (Mean 4.35, S.D. 0.80)
- **Service** (Mean 3.99, S.D. 0.78) with the first highest barrier is creating of relationship in customer (Mean 4.04, S.D. 0.80) and the second is some product patterns no need for consumer (Mean 3.95, S.D. 0.77)

Table 1: Result primary activities of value chain process

Value Chain Process	Mean	S.D.	The impact level of Barriers
1. Inbound Logistic	4.10	0.69	High
2. Production or Operation	4.02	0.68	High
3. Outbound Logistic	4.01	0.78	High
4. Sale and Marketing	4.35	0.80	Highest
5. Service	3.99	0.78	High

Note: Mean response: 4.21 – 5.00 = highest, 3.41 – 4.20 = high, 2.61 – 3.40 = Moderately
1.81 – 2.60 = low, 1.00 – 1.80 = very low (n=117)

5. Discussions

This research was compared to other researches (i.e. Vongchavalitkul University (2006) and Rasjirang and Kanjana (2008)). It is found that difference of silk product in enterprise based on barriers of the main activity of value chain process. In addition, sale and marketing is the severe barrier for silk product such as searching of new market and data insufficient of new market. Herein, 80% of small industry was reported for household in all processes from upstream to downstream that is accounted about 90% of expert weaving (Suranaree University of Technology, 2010). Here with still not have knowledge and the data accuracy of market needing. Importantly, most silk enterprises in market show defensive rather than offensive market that characteristics ordering of customer or contacting customer by themselves including most products no have own brand. Although each brand is accepted by consumer, it is invested by a lot of money and long time for qualitative development likely standard.

6. Recommendations

According to barrier studying, development of silk product for enterprisers in Nakhonchaiburi zone is to determine supporting approach for silk enterprisers who can develop silk product for competition and acceptance in both national and international market. Herein, they can create income for member of silk enterprise with satisfied concrete object. Additionally, this research analysed primary activity of value chain process for silk enterpriser in silk product of Nakhonchaiburin zone that are found all activities in value chain were influence barrier to silk product especially sale and marketing with the highest barrier of silk product such as finding new market and data insufficiency of need in new market. Therefore, this research recommends the suitable approach for silk enterpriser in Nakhonchaiburi zone based on cluster concept of Michael E. porter [7] as follows:

Firstly, concentration of enterprisers for the related industry is from upstream to downstream in both government and private including educational institute, research institutes and financial institute.

Secondly, connectivity is relationship of resource use in industry such as human resource, technology for reducing cost, transportation, producing, through market management. Silk enterprises and the related agencies study for planning produce approach, developing silk product, and goods design for customer need. Herein, this depends on competition of producer, producing, raw data and channel of suitable distribution for gods through product pattern and color etc. Enterprises for Nakhonchaiburin zone should make proactive market for silk enterprises although, really, most is the receptive characteristic that produce is ordered by customer or contacting of customer by themselves. Strategy of proactive market indicates the highest of

customer power for buying or customer in luxury market, the second is upper market and the last is mass market in both nation and international that is begun by Thai people and tourists.

Thirdly, collaboration is integration of same industries that have learning, exchange, transfer, and experience based on collaborative learning. Silk enterprise should have select physical and suitable represent of enterprises such as age for learning and capability of knowledge transfer that should be trained to learning of produce and silk product design. Then such knowledge is transferred into enterprise, called 'Knowledge Management (KM)' for sustain.

Fourthly, competition is based on collaborative learning to effect innovation and development of silk product that help to increase competency in both national and international level.

Finally, collective efficiency is collaboration for member of industry in value chain process with finding of raw data, produce, goods distribution, marketing and selling, and service including supporting activities (e.g. technology, research and development, human development, exchange and technique transfer, administration among them. These collective efficiencies will help member of silk enterprises for increasing competency of each enterprise. Although these collective efficiencies of each enterprise are differ each other or not equal due to basic physical is not same, affect to more totally collective efficiency of cluster.

7. References

- [1] The Queen Sirikit Department of Sericulture. <http://www.gsds.go.th/>.2011.
- [2] Agricultural Research Development Agency. <http://www.arda.or.th/>.2011.
- [3] Suranaree University of Technology. Consultant activity for qualitative development with standard under project of qualitative development for standard producing, provinces of lower northeastern zone. inal Report, Thailand, 2010.
- [4] Porter, M. E., Competitive Advantage: Creating and sustaining Superior Performance. Free Press. New York, 1985.
- [5] Vongchavalitkul University. Supply chain of industry in Nakhonratchasima province depend on cluster of silk enterprises. Final Report, 2006.
- [6] N. Rasjirang and K. Kanjana, Supply chain management to add potential for competition of Thai silk in case study for partnership limited of Thai silk. Proceeding of University of The Thai Chamber of Commerce, Thailand, 2008.
- [7] Porter, M. E. On competition. Boston : Harvard Business School Press, 1998.