

A Feasibility Study on Potential marketing of Creations Economic Added Value of Palmyra Palm Products in Phetchaburi, Thailand

Adhisiddhi Nujnetra¹

¹Department of management, College Faculty of Business Administration, Rajamangala University of
Technology Rattanakosin, Wangklikanwol Campus, HuaHin, Thailand

ABSTRACT : The objective of this research was to explore and evaluate the potential marketing for economic added value of Palmyra palm's products, in the Phetchaburi province. The method of financial and economic analysis is used for the study. The Result showed that the economic added value of combined production of Palmyra sugarcake with Palmyra fruit jelly seed gained the highest net present value (NPV) at 3,226,369. Baht, whereas the highest financial return was for Palmyra sugarcake alone, whose Internal Rate of Return (IRR) was the highest at 28.50% . This shown that the Palmyra' product is feasibility on potential marketing. It should be providing a skilled workforce and transferring tacit knowledge and management information on production to the new generation, including additional Palmyra cultivation in those areas which were detrimental.

KEYWORDS : Economic Added Value, Palmyra palm, Potentials Marketing

I. INTRODUCTION

Palmyra palm is from one of the oldest history tree families in Asia and is one of the sources of income for agriculturists in Phetchaburi, especially in rural area and is commonly called Tantanot (see figure 1). It has multiple uses from the fruit, timber, roots and leaves, and it is a plant that has a long life. Every part of the Palmyra Palm tree can supply benefits. Agriculturists use its potential to make products for both main dishes and delicious sweets such as Palmyra fruit jelly seeds, crystallized fruit, jelly seeds in syrup, steamed Palmyra pudding, Palmyra sugarcake (*jaggery*) and fresh Palmyra juice as shown in figure 2.



Figure 1 Palmyra Palm



Palmyra sugar powder



Palmyra sugarcake

Figure 2 Palmyra Product

Moreover, it has applications in ecotourism where tourists can visit Palmyra gardens, and the wood of aging Palmyra trees can be made into house decorations and various furniture items. The different types of products bring about large amounts of income to people in Phetchaburi province. As a result, Thai Government has been promoted as a creative economy that earns a stable and sustainable revenue within the province [1]. In recent years, agriculturists have made Palmyra sugar in powder form, as well as vinegar, wine and so on from Palmyra juice. It has great potential for creating economic value-added products.

By integrating existing resources with the inherited knowledge of agriculturists to promote added value, benefits also increase. As a consequence, Palmyra Palm is a value added item on the creative economy for the new generation. So, by increasing the quantity of products created from T Palmyra Palm, the added economic value is also greatly increased.

Nowadays, demand for product is very high but less product is marketed and there are also fewer workers for this occupation. In the long run, the potential of Palmyra may gradually deteriorate if no one concentrates on this problem [2]. Therefore, there is a question whether Palmyra will be still capable and possible of creating added economic value to manufacturers in the future, and what potential value of Palmyra marketing has at any level. It is necessary to explore and evaluate potential markets and economic value added products in order to ascertain the positive and negative factors in occupational competency and potential sales.

II. OBJECTIVES

(1) To explore economic value added products from Product of Palmyra Palm.

(2) To evaluate the potential of manufacturing in order to select opportunities in the creation of value -added products for entrepreneur groups and relevant agencies in both governmental and private sectors.

III. RESEARCH METHODOLOGY

Area of Study

Phetchaburi province is the area of study, which comprises as follows: (1) District of Banlad (2), District of Mueang Phetchaburi (3) District of Kaoyoi.

Population and Sample

The population for the study was 327 Palmyra Palm manufacturers. The 120 survey sample was selected from the population by purposive sampling under the criteria as follows: (1) Must have minimum 3 years experience of Palmyra Palm production (2) Have owned Palmyra tree or rented Palmyra Palm for their occupation, and (3) Minimum income from Palmyra Palm of 20,000 Thai baht per annum. (\$1 US = 31 Baht, 2012).

After that, the survey sample was separated into 5 groups i.e. (1) A group of manufacturers of jelly seeds of Palmyra fruit of 29 persons, (2) a Palmyra sugar cake manufacturer group of 21 persons, (3) manufacturers of both jelly seeds of Palmyra fruit and Palmyra sugar cake- group of 38 persons (4) Ecotourism industry group of 17, and (5) Palmyra handicraft group of 15.

Sources of Data

1. Primary data was collected in person through field investigation and interviews from a sample of 120 people in the selected area study by using questionnaires which structured schedules, and sought producer's information on the following;

Age and level of education; farming experience; funding sources; the number of Palmyra trees farmed; number of household members that worked on the farm; Production costs including both fixed cost and variable costs;. Marketing channels; and value of sales.

2. Secondary data consists of information on production and marketing of the Palmyra industry which is contained in the Palmyra research and relevant academic report, which was published and released both in the private and government sectors, and was taken into account in the analysis.

The materials used for analysis was obtained from the collected data in following Table 1

Table 1 Shows production and marketing cost

Category of Products	Kinds of Cost		Total
	Fixed Cost	Variable Cost	
jelly seeds of Palmyra fruit	270,729	1,738,561	2,009,290 (38.54%)
Palmyrasugarcake	144,928	109,285	254,213 (4.87%)
jelly seeds of Palmyra fruit and Palmyrasugarcake	496,381	343,864	840,245 (16.11%)
Palmyra handicraft	202,205	269,700	471,905 (9.05%)
Tantanot for Palmyra ecotourism	390,098	1,307,020	1,697,118 (31.43%)
Total	1,504,341(28.53)	3,768,430 (71.47)	5,272,771(100.00%)

Data Analytical Methods

A quantitative method was applied in this study. Financial analysis tools were applied to the objective of evaluating the marketing potential, as follows;

(1) Net Present Value Method, NPV.

$$NPV = \sum_{t=1}^n \frac{R_t}{(1+r)^t} - C$$

(2) Internal Rate of Return Method, IRR.

$$\sum_{t=1}^n \frac{R_t}{(1+r)^t} - C = 0$$

(3) The Rating scale is applied based on investigation and assessment of the potentials of producer in which contained the following formula:

$$\frac{\text{Sum of the score obtained by each group of producers}}{\text{Sum of index in each indicator}} \times 100$$

A acceptable range was between 1.61- 2.33 or 55.34 – 77%, and the highest potential was between 2.34 -3.00 or 78.00 -100%.

IV. RESULTHS

According to the explored marketing potential and economic value added products obtained from Palmyra Palm, it was shown that the output of investment in the category of Production which gives the highest profit and potential is the marketing of jelly seeds of Palmyra fruit and Palmyrasugarcake with a value of 7,942,940 Thai baht, followed by jelly seeds of Palmyra fruit 3,750,310, Palmyra for ecotourism 3,204,987, Palmyrasugar cake 2,776,397, and Palmyra handicraft 723,761. And almost of product marketed by middle man. When accounting in terms of financial analysis it was found that the production of jelly seeds of Palmyra fruit and Palmyra sugarcake gained the highest value of 3,226,369.65 Thai Baht where values used the minimum 8% required rate of return by bank lenders in the respect of TRR. The interesting issue was that the Palmyra sugarcake group was appropriate for long term investment because of the highest rate of IRR with 28.15%. NVP and IRR is detailed in the following Table 2

Table 2 shows valued investment

Category of Production	Financial Methods	
	NPV (at P/F,8%, 10 yrs)	IRR (at MRR 8%)
Jelly seeds of Palmyra fruit	657,404.80	11.10
Palmyrasugar cake	1,148,959.43	28.15
Jelly seeds of Palmyra fruit and Palmyrasugarcake	3,226,369.65	25.12
Palmyra handicraft	81,688.35	9.75
Palmyra for ecotourism	604,776.60	11.45

To evaluate the potential of manufacturing in order to select opportunities in the creation of value-added products, it was revealed that the potentials of each manufacturing process was highest on jelly seeds of Palmyra fruit and massive Palmyra sugarcake with 2.20 out of 3 as shown in the following Table 3

Table 3 shows each potential of producers

Category of manufactures	The index of potentials
Jelly seeds of Palmyra fruit	1.99
Palmyra sugarcake	2.15
Jelly seeds of Palmyra fruit and massive Palmyrasugarcake	2.20
Palmyra handicraft	1.61
Palmyra for ecotourism	2.18
Average	2.02

when detailed for indicator it was found that fundamental factor for a career such as materials achieved the highest with 2.29 for all producers as described in the following Table 4

Table 4 shows rating scale of indicators

Indicators	Rating Scale(3)
Fundamental factor for a career	2.29
Production factor	2.03
Marketing factors	2.20
The career promotion and investment	1.70
Value added creation	2.20
Research and development for advanced product	1.75
Average	2.02

V. DISCUSSIONS

1) The value added product of Palmyra Palm arose from the knowledge management of producers in Palmyra jelly, sugarcake, combined jelly seeds and sugarcake, handicraft and ecotourism which create and attract money. This can be seen from NPV and IRR which effected the producers. As the tables of survey results show above, all types of Palmyra Palm production are positive and viable.

2) In the case of potential marketing, it demonstrates that the average potential was the highest for the Palmyra combined jelly seeds and sugarcake group. In conclusion, all the potential indicators were over criteria but some lower than 2.00 needed further improvement, but it was shown that the potential of the Palmyra sugarcake had feasible possibilities for generating added value. There are opportunities to create added value from Palmyra plantations for tourists by advertising Palmyra Palm cultural communities.

3) The generate potential image innovation by indicators for (1) career promotion and investment, 2) promoting investments in research and development, and (3) taking advantage of value-added Palmyra Palm products were evaluated from a potential of 1.70 and 1.75.,which was low but still acceptable. This has not yet been classified in terms of high-potential criteria. It is something that requires further development, such as packaging improvements, modern distribution sources, product prices, or development of existing know-how into a network of competing professionals that would help to make products diffuse rapidly as well [3]. The potential of Palmyra indicates the plant is part of the creative economy of Petchaburi which is supplying the cultural goods and services market.

The studies found that Palmyra plantations have limited attractions and lacked sufficient product development. The potential of Tantan depends on support and promoting planting Palmyra with more conservation of Palmyra Palm supported by both the private and government sectors. Promoting Palmyra plantations, and adding or maintaining Palmyra Palm and the inherited knowledge in the profession will be useful for a new generation and create sustainability in a potential revenue-generating culture in Phetchaburi province [5].

VI. RECOMMENDATIONS

Although Palmyra Palm is a cash crop which has high potential for creating economic value added products related to the locus community in Petchaburi in terms of both career development and production investment, but in terms of lack of specialized labor for a new generation of youngsters who are not rarely interested in this professional inheritance should be remedies.

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