

Economic Analysis on Supplementary Careers for Elders

Suppanunta Romprasert^a, ^aThe Faculty of Economics, Srinakharinwirot University, Thailand, Email: suppanunta@g.swu.ac.th

The objectives of this research are to support elders in the community with innovations to strategic career planning and create financial worthiness of investment, including suggestions for understanding investments for business purposes. This paper brings strategic management and career development planning as a main conceptual framework. The process is divided into planning and creating steps of community experiences to the real changes to career plans for elders. The data was collected by deep interviews combined with an analysis process. The research uses SWOT Analysis to analyse strengths, weaknesses, opportunities for success and career obstacles. In addition, Balanced Score Card is used to determine vision, mission, goals, strategies and operations to achieve various goals on supporting communities with innovation on strategic career planning. It also calculates interest, borrowing and compensation for the feasibility of community career project planning. In the same strategy, if an elder community wants to change a project into a business, borrowing money patterns can be used to suggest an operation via net present value, because it is used to analyse the cost of a project. Therefore, it is worthwhile to bring economical financial tools to the analysis. Outcomes show that economic analysis of supplementary careers for elders on investment is a positive for net present value. It also shows breakeven point for benefits of the elder society. The strategic career plan project is able to extend to Phase Two, which is called the “product development plan (long term plan).” This paper suggests a business model for the development of marketing strategies and small business development (SME) as a source of learning for elders’ communities. In addition, the problems of elders in career communities can be solved and applied to supplementary careers. The implementation benefits of the research are: increasing economic competition in rural areas and generating the income of gross provincial products, including enhancing quality of life for elders as sustainable happy citizens.

Key words: *Strategic management, Elders community, Career development planning.*

Introduction

The 11th National Economic and Social Development Plan (2012 - 2016) defined human development strategies to a sustainable life-long learning society, including the development of the elderly to have economic and social security, with quality and value, by promoting income generation and employment for the elderly along with increasing knowledge for careers who are brain treasures with local knowledge. To take advantage of local development, as well as to promote the elderly to be self-reliant is achieved by improving the environment and the physical necessity to suit the age in various forms, both in the provision of health services and social welfare. Currently, the elderly represent a higher proportion of people suffering from difficult conditions than other ages. Poverty is the first factor that leads to these conditions. Since 2005, Thailand has entered the ageing society, with the proportion of people aged 60 years and over increasing by 10% of the total population. According to the latest data in 2018, Thailand has an estimated 11.8 million elderly people. The change in the Thai population structure has become a challenge for Thai elders to plan for and make adjustments to their lives. In the rural area, elders are at home and loneliness causes depression. To change elders' life styles, it is necessary to develop their capacity for being useful by creating supplementary careers.

In the past, bananas were cultivated for household consumption, but now technology is used to grow bananas. Research and development has been carried out in terms of quantity and quality of production. In addition, with a variety of bananas cultivated, making a banana business is likely to create a good opportunity for another profession that generates income for the elder community, especially in elder communities with many elderly people. Banana products are popular for consumers, since they can be used to cook a variety of dishes, whether for savoury vegetarian food or other various types of processing. They are also delicious and nutritious, resulting in increased demand. In addition, some types of bananas have medicinal effects and can also be extracted to make cosmetic ingredients and dietary supplements, resulting in the continuously increasing demand for bananas in the country. Considering the price of bananas that are sold in the market, demand is likely to grow continuously. As for the international market, the trend of Thai banana exports is steadily increasing, especially the export of fresh and chilled bananas. The production of Thai processed bananas has increased, but distance is always an obstacle. Therefore, if the elder's community develops and innovates banana production seriously and becomes more commercial, the income proportion of the elder community that grows bananas will also increase. Nakhon Nayok Province is one of the provinces that has banana growers, but it has

not yet established itself as a fully integrated banana production business, so that the elder community do not yet know that investing in a fully integrated banana production business is a career that generates relatively high incomes for the community. The product can be sold at almost every step of production and develop to maximise benefits to the elder community. Another problem is that the new generation has to go outside to find work. Tourists do not come by, despite the area's location being the way from Nakhon Nayok to Khao Yai, Nakhon Ratchasima Province. Currently, the elder community encounters the problems of Baan Nern Mai, a type of crispy banana that would benefit from entrepreneurship. The elder community needs helping to support the crispy banana project through the FDA. Besides, the analysed cost and profitability requires support. Assessing the market to have more sales requires developing the quality of the products to be reliable and beautiful for the appetites of the consumers. At present, there are still quite a few entrepreneurs investing in the production business. The term entrepreneur is used in the context of many meanings such as an individual or group of people who are interested in doing business, specifying business opportunities under the modern concepts and invention by turning those opportunities into successful businesses in order to be sustainable (Intachak, 2003). Due to the limitation of planting a good banana, together with wanting to manage the banana plantations correctly, for elder communities that are starting to work in this business, it is very important to find related information and take into account factors such as inputs, production methods, capital and marketing of integrated production. This will result in successful and sustainable business operations. For this reason, the objective is interest in supporting elders in the community with innovations for strategic career planning and creating financial worthiness of investments, including suggesting understanding investment for business purposes, so the elder community can use this as a guideline in deciding how to proceed with the crispy banana investment plan.

Literature Review

In this research, the researcher has studied and researched theoretical concepts. Documents and related research are as follows:

Complete Income Theory: This is a theory based on Keynesian ideas that the consumption in each period is in the same direction as the complete income level occurring in that same period after tax. In order to consider the relationship between consumption and complete income level, the consumption equation is written as follows: $C_t = a + b * Y_t$; $0 < b < 1$; Y_t is higher; C_t is also higher. The higher value depends on the value of b , which is greater than zero, but less than one. If assuming the true income level is zero, consumption during that time is equal to a which it is not related to income levels. Keynesian Complete Income Theory concludes that consumption has a relationship with income in the same direction. But it is a disproportionate relationship. When income levels rise, $APC > MPC$ values even if

APC decreases and MPC values are greater than zero, but less than one (Jappelli & Pistaferri, 2010; Brooks, 2017).

Permanent Income Theory: Milton Friedman proposed the theory of consumption in relation to permanent income in 1957. He views that in the long run, consumption is associated with permanent income in constant proportions, as in the equation: $C = ky^p$ (Friedman, 1957). According to Friedman's idea of permanent income, it means the long-term average income that is expected to be derived from human wealth and non-human assets (Darby, 1974; Carroll, 1997; Bernanke, 1984; Mankiw & Shapiro, 1985; Meghir, 2004; Palley, 2008).

Economic Value Analysis: A suitability analysis to use as criteria, which it will use as the principles of cost-benefit in economic terms. Moreover, it also links to Economic Internal Rate of Return (EIRR), meaning the direct and indirect benefits of a project can be calculated in monetary form as appropriate for investment (Altaf, 2016; Desai, Ferri & Treadwell, 2005).

This study is a study of Economic Analysis on Supplementary Careers for Elders via the worthiness of investment in a fully integrated banana production business in Nakhon Nayok Province. The study is carried out by using production technical data, financial information, production costs, including initial investment costs. Operating costs each year and returns on production are income and profit. It is used to analyse cash inflows and cash flow paid combined with risk information taken to evaluate the financial worth of the project to be a guideline for making investment decisions in the fully integrated banana production business of the community.

Conceptual Framework

Technical information on production and marketing, including information on banana production	Financial information includes production costs, return on production and cash flow	Risk information consists of testing for cost variance and testing the variation in income
---	---	--



Guidelines for making investment decisions in fully integrated banana production business for community elders

SWOT Analysis: It is an analysis of the current state of the organisation to find strengths, weaknesses, opportunities and obstacles. That happens both inside and outside the organisation, in order to analyse and find ways to develop or solve existing problems. The

SWOT principle in problem analysis is divided into two types. Those are internal analysis, by analysing the strengths and weaknesses of the organisation, and external analysis which is an analysis of opportunities and obstacles. SWOT will be related to society, politics, people and economy (Musa, 2015; Tang, Huang, Ma & Liu, 2018; Romprasert and Jermsittiparsert, 2019).

Balanced Scorecard (BSC): This is a type of management system or process that uses KPI as an important mechanism. Robert Kaplan and David Norton have defined the latest definition of Balanced Scorecard as "a management tool that helps to implement the strategy into strategic implementation by measuring or evaluating to help organisations become unified. Moreover, it focuses on the things that are important to the success of the organisation (Lyon, Gumbus & Bellhouse, 2003.; Kaplan & Norton, 2005; Keyes, 2010; Zahra & Sadeghian, 2015; Burtseva & Chausow, 2016; Norreklit, Kure & Trenca, 2018).

Production Function: It is expressed as $Y = TF(L, K, H, N)$. A production function comprises with Y representing the amount of output a community can produce, L is labour that the community hire, K is the physical capital that the community can afford, H is the quantity of human capital, N is natural resources, T represents the technology and F is a function that indicates how the inputs are combined to the product output (Hajkova & Hurnik, 2007; Gordon & Vaughan, 2011; Charlot, Crescenzi & Musolesi, 2015; Somjai, Chankoson, & Jermsittiparsert, 2020).

Methodology

In this research, the target group of the research uses the in-depth interview via face-to-face interaction. Researchers have reviewed literature on synthesising the issues, such as process, definitions, criteria and requirements. The processes of the paper are as follows: 1) Planning for land preparation. 2) Using a model for initiating projects that are of interest for development. 3) Calculating the costs and developing product logos that are standard and interesting to attract consumers. 4) Analysing the production costs of processing the crispy banana. 5) Helping with business planning as follows: analyze the profits from the traditional crispy banana as shown in the following tables.

Table 1: Production Costs Per Week

Raw Material	Quantity	Price / Kg (Baht)	Cost / Week (Baht)
1. Banana	125 Kg	120	15,000
2. Rubber Band	1 Kg	80	80
3. Plastic Bag size 7*11	0.5 Kg	76	38
4. Plastic Bag size 5*6	0.5 Kg	76	38
5. Gas	15 Kg	370	370
6. Transportation	-	-	1,000
Total	15,523		

Table 2: Sales Revenue of Crispy Banana Per Week

Fried Amount	After Fried Amount	Fried Packaging Size	Number of Packages	Revenue
125 Kg	50 Kg	Small bag 30 gram Price 20 Baht	1,666 Bags	33,320 Baht

Table 3: Profit from Sales of Crispy Banana in One Week

Profit = Revenue - Cost	Profit = 33,320*15,523 = 17,797 Baht
-------------------------	---

Therefore, the traditional investment will receive a weekly profit of 17,797 baht or a monthly profit of 71,188 baht.

Product Development Plan Phase 1 (Short Term)

Target audience: grocery market on the Rangsit - Nakhon Nayok route

In previous times: no planning and strategies on product, price, place and promotion.

Now: this paper suggests the fourPs strategy as follows:

1. Product: creating logo, package, size of crispy banana, expiry date.
2. Price: setting the price equal to the general market price.
3. Place: setting up online advertising such as Facebook, Instagram etc. including contacting retail stores to serve as distribution areas.
4. Promotion: creating the campaign "Free Delivery" on the Rangsit – Nakhon Nayok route."

Table 4: Cost Used for Investment if the Product Modification According to the Strategies Discussed Above

List of Product Modification	Price	Strategies on Decreasing or Increasing	Feasibility of Cost
Packaging Machine	399 Baht	Reducing Rubber Band	Reducing the price of rubber band that is required to produce in 1 year
Logo	0.5 – 1 Baht/sticker	Increasing Cost	Increase the cost 0.5 – 1 Baht / Bag

Product Development Plan Phase 2 (Long Term):

Long-term plans must be invested with fixed costs, such as production plants, machinery, etc. The loan has been searched as follows:

Table 5: Credit Loans

Bank	Type of Loan	Budget	Interest	Guarantee	Payment Period
SME	Loans for leverage Community economy	The maximum limit is 5 million baht per case	Average 0.656% per month MLR-1.875 % per year (3 years)	Collateral according to bank regulations TCG	Instalments up to 7 years
	Loans for people	The maximum limit is 1 million baht per case	Average 0.08% per month or 1% per year in the whole project	Authorised Director and / or major shareholders guarantee	Instalments up to 7 years
Bank for Agriculture	Retail business loans	The bank will consider	As announced by the bank and evaluating the borrower's risk	Use personal guarantees real estate deposits	To invest 15 years, special not over 20 years

Table 6: Table of Loan Repayment Calculations

Bank	Type of Loan	Interest	Monthly payment (500,000-baht limit)	Payment per month (amount of 800,000 baht)	Monthly payment (1-million-baht limit)	Monthly payment (amount 2 million baht)	Monthly payment (amount 3 million baht)
SME	Loans for leverage Community economy	0.656 %	6,091.72	9,746.75	12,183.44	24,366.88	36,550.32
	Loans for people	1%	6,165.62	9,865.00	12,331.25	-	-
Bank for Agriculture	Retail business loans	N/A	N/A	N/A	N/A	N/A	N/A

Note: Not over seven years, from the above Table, it can be concluded that the banks that are suitable for loans on investment in this project are SME banks with small loans. The maximum limit is 1 million baht.

Table 7: Non-Current Assets

Investment Items	Price / unit	Qty (Machine)	Price (Baht)
Banana mill (Projected price)	300,000	-	300,000
Hot air dryer	38,000 – 62,500	3	187,500
Vertical packing machine Belt system (Estimated price)	100,000	1	100,000
Banana slicing machine (Projected price)	60,000	1	60,000
Others such as latency	152,500	-	152,500
		Total	800,000

Assumptions in the Production Process

Produce 1 kg of crispy banana; Packing 20 grams per bag making 50 bags / kilogram.

Table 8: Current Assets That are Used per Day Production

Investment Items	Price unit /	Amount produced per day	Price (Baht)
Package	1	5,000 Bags	5,000
Labour	350	5 persons	1,750
Banana	120	100 Kg	12,000
Others such as seasoning: cheese, paprika	100	-	100
		Total	18,850

The current assets used in one-month of production of approximately $18,850 \times 20 = 377,000$ baht / month.

Therefore, the minimum budget that should be used for investing in current assets is 377,000 baht / month or roughly 400,000 baht / month.

Cost per bag $18,850 / 5,000 = 3.77$ baht / bag or around 4 baht / bag

Table 9: Table Comparing the Profit and Cost per Bag Between the Old and New Production of Crispy Banana

	Raw material quantity (kg)	Raw material cost (Baht)	Quantity after processing (kg)	Pack quantity (grams)	Amount that can be packaged (bag)	Sale price (Baht)	Cost of crispy banana per bag (Baht)	Profit per bag (Baht)
Original Strategy	banana 1	120	0.4	30	33	20	2.7	17.3
New Strategy	banana 1	120	0.4	20	50	25	4	21

Calculating the profit in the production of new crispy banana according to the daily production quantity is as follows:



The cost to be calculated per bag is 4 baht; wholesale price is 25 baht per bag. So, profit per bag is $25 - 4 = 21$ baht / bag.

Case 1: Produce 100 kg of Crispy Banana for One Day.

Produce 100 kg of crispy banana after 50 kilograms of hot air baking, which can pack 250 bags.

Calculate profit = $250 \times 20 = 5,000$ baht / day.

Produce 100 kg of crispy banana per day, get a profit of 5,000 baht per day. If producing crispy banana 20 days per month will get a profit of $5,000 \times 20 = 100,000$ baht. One year will gain $100,000 \times 12 = 1,200,000$ baht.

Case 2: Produce 75 kg of Crispy Banana for One Day.

Produce 75 kg of crispy banana after 37.5 kilograms of hot air baking, which can pack 187.5 bags.

Calculate profit = $187.5 \times 20 = 3,750$ baht / day.

Produce 75 kg of crispy banana per day, get a profit of 3,750 baht per day. If producing crispy banana 20 days per month, will get a profit of $3,750 \times 20 = 75,000$ baht. One year will gain $75,000 \times 12 = 900,000$ baht.

Case 3: Produce 50 kg of Crispy Banana for One Day.

Produce 50 kg of crispy banana after 25 kilograms of hot air baking, which can pack 125 bags.

Calculate profit = $125 \times 20 = 2,500$ baht / day.

Produce 100 kg of crispy banana per day, get a profit of 2,500 baht per day. If producing crispy banana 20 days per month will get a profit of $2,500 \times 20 = 50,000$ baht. One year will gain $50,000 \times 12 = 600,000$ baht.

Case 4: Produce 25 kg of Crispy Banana for One Day.

Produce 25 kg of crispy banana after 12.5 kilograms of hot air baking, which can pack 62.5 bags.

Calculate profit = $62.5 \times 20 = 1,250$ baht / day.

Produce 25 kg of crispy banana per day, get a profit of 1,250 baht per day. If producing crispy banana 20 days per month will get a profit of $1,250 \times 20 = 25,000$ baht. One year will gain $25,000 \times 12 = 300,000$ baht.

Balanced Score Card

Step 1 SWOT Analysis

Table 10: SWOT Analysis of the Project

S Strengths	W Weaknesses	O Opportunities	T Threats
<ul style="list-style-type: none"> - The process of making crispy banana in a traditional way - Crispy banana easily accessible to consumers - It can be used as a main dish or a snack on the food table. Crispy banana flavor can be made up to taste like a barbecue flavor, cheese flavor etc. 	<ul style="list-style-type: none"> - There are many competitors in the market (complete competitive market) - Products are not diverse and not appealing to consumers - The crispy banana production process is not up to standard - The raw materials for the production of crispy banana are still unstable 	<ul style="list-style-type: none"> - Receive the opportunity to develop products from public and private institutions 	<ul style="list-style-type: none"> - It is hard to access on investments - Sticking to the old concept is the main attitude to adjust because community does not dare to try the new process used

Step 2 Define the Vision and Strategy

Table 11: Vision and Main Strategies of Happiness Banana Shop

Vision	Within the next 5 years, Happiness Banana Shop must have at least 20% market share in Nakhon Nayok Province
Mission	<ol style="list-style-type: none"> 1. Passing various standards such as FDA standards 2. Applying technology to expand production capacity and ensure consistency in daily production 3. Marketing online by increasing the target group which is “Teenagers and Elders” 4. Innovative in making new products 5. Expanding sales channels to tourist locations in Nakhon Nayok Province and neighbouring provinces including a fair selling at various festivals

Step 3: Plan of Action to Reach the Goal Set by Strategy

Table 12: Action to Achieve Goals in Accordance with Strategy Formulation

Goal	<p>Long-term goals:</p> <ol style="list-style-type: none"> 1. Within five years, 7-Eleven, Lotus, CJ Express stores will be able to be distributed in convenience stores and souvenir shops 2. The financial status of Happiness Banana Shop is good and the credit for the loan can be easily requested 3. Happiness Banana Shop has a wide variety of products such as crispy banana seasoning, banana powder soup, tulle banana, banana ice-cream, banana cream lotion, etc. 4. Within the next five years, Happiness Banana Shop must have a market share of at least 20% in Nakhon Nayok Province <p>Short-term goals:</p> <ol style="list-style-type: none"> 1. Good debt management 2. Improve the banana factory by using loans from banks to help SME 3. Pass FDA standards 4. Expanding sales to new markets and maintaining strong initial customer base 5. Expanding production capacity per day to support the market expansion 6. Improved packaging to be more attractive to buy
Strategy	Marketing with Four’Ps
Actions to achieve goals	<ol style="list-style-type: none"> 1. Plan doing the online marketing 2. Do the various forms of delivery, including postal delivery 3. Check that packaging styles are interesting 4. Act on marketing in the form of viral technique

Step 4

At this stage, various information such as profits, and other information that is useful for shop development should be gathered. Moreover, staff should manage and monitor the performance of each phase closely, consisting of “Before Operating Interval” and “After.” The practice is finished through scientific methods, including analysis of the community, and brainstorming to find the direction of the Happiness Banana Shop. The Balance Scorecard can be used to measure the achievement of the elder community shop, including checking the progress and the impact to elder community shop.

Results

Along with the objectives are: 1) To support community with innovation on strategic career planning; 2) To create financial worthiness of investment and 3) To suggest on understanding investment for business purposes. The paper discusses each objective.

The focus of the strategic career planning for this project is that “banana is easily planted and cultivated in every season.” Banana is a good source of potassium, fibre and vitamin C. It is also an excellent source of vitamin B6. Dietary potassium is important for cardiovascular health, as it seems to be linked to lowering blood pressure. Potassium also plays a role in protecting against muscle wasting, osteoporosis and kidney stones. Dietitians agree that the preferred source of potassium is from potassium-rich foods such as bananas. Fibre is essential for protection against certain diseases and aids in intestinal health, helping to relieve and prevent constipation. Vitamin C helps to control infections and is an antioxidant, warding off free radicals in the body. Vitamin B6 is involved in converting food into energy in the body. It is needed for the nervous system to function correctly, and it is needed for healthy skin, hair, eyes and liver support according to the Banana Nutrition Guide (n.d.). The elder community can produce the new product from bananas by using a food dryer machine to extend the life of the fruit. Moreover, the elder community needs to adjust the local snack product to become “Banana Crispy Snack” by adding some seasoning and collagen to the ingredients. Bananas are easily accessible to every “class” and “age” of people. In addition, the packaging must be able to preserve the products, be easy to open, with a highly visible graphic design, with a modern and premium style which must be promoted to consumers. For suggestions to support the elder community with innovations on strategic career planning, see Table 13 – Table 16 .

Table 13: Project Output and Results

Product	Result
1.Core Product 2.Product Attributes 3.Product Features 4.Product Benefits	<p>1. The products that are made from bananas are easily accessed by every level of people and the slogan of the “Happiness Banana Shop” is, “Think of Happy Times, Think of Happiness Banana Shop”</p> <p>2. Banana is a source of potassium, fibre and vitamins C and B6. It contains amino acids, tryptophan, which is used in the creation of the neurotransmitter, serotonin. Serotonin is involved in the regulation of mood and sleep. A fresh banana gets about 75% of its weight from water, according to the USDA. The drying process removes about 96% of the water content, making dehydrated banana a far more concentrated source of calories and nutrients</p> <p>3. Banana Crispy Seasoning used for flavours such as cheese and pizza and collagen is very popular from teenagers to elders in the form of a snack for those afraid of fat</p> <p>4.Crispy banana is a supplementary food and weight loss product. People now want to lose weight and eat supplementary food in forms which make them feel healthy. The Happiness Banana Shop will produce the product that contains cheese and pizza flavours and collagen responding to the customers’ needs. Furthermore, crispy banana is easy to eat and satisfies peoples’ appetities when they get hungry</p>

Table 14: Indicators for Project Success

Productivity / Result	Indicator	Target Value	Duration
The packaging is attractive	Crispy banana has to develop modern packaging to make it attractive to buy.	Crispy banana can make the market in the E-commerce era	1-2 months
More quality packaging	Preserved crispy banana can be stored longer	Further to the FDA license	3-8 months
The products are of international standards	Passed FDA standards	It can be distributed in convenience stores such as the 7-Eleven, Big C Lotus Store, etc.	5 months
Crispy Banana Community	People in the community know	Crispy Banana Community Learning Centre will help	3 months

Learning Centre	the process of making products to be attractive and standardised	rural people increase their income and become an economic model community	
-----------------	--	---	--

Table 15: Links Between Projects and Strategies

Project Relationship	Reasons
Main Project: Quality Improvement of Agricultural Product Processing for Enterprise	<p>Indications:</p> <ol style="list-style-type: none"> 1. The number of community enterprises receives basic development of no less than 77 groups 2. The number of community enterprises has been developed at the level of development of production standards for business competition of no less than 77 groups 3. Community enterprises can extend the value added from agricultural raw materials into quality processed agricultural products. Safe products for consumers results in community enterprise members being able to sell products. It creates increase and has a stable income <p>Objective: Community enterprise members can extend the value-added from agricultural raw materials to processed agricultural products that are safe and of good quality for consumers</p>
Supporting Projects: Early-Stage Entrepreneur Development Project in 2019	<p>Objective: Promote and support entrepreneurs using the knowledge in doing business. Having a management system and using technology to assist in conducting business to achieve high value both in theory and practice. Helping entrepreneurs is strong in establishing a sustainable business in the long run because it is doing business based on knowledge, aiming at and is clear in building a business.</p> <p>Strategic Issues Indications:</p> <ol style="list-style-type: none"> 1. Entrepreneurs receive basic knowledge to upgrade to SME4.0 2. Entrepreneurs are linked to the marketing promotion 3. Increased value is added from sales in marketing promotions
Supporting Projects: Sustainable Community Development Master Plan in Bang Phra Subdistrict Administrative	<p>Objective: Promote the idea of creating a community participation process for sustainable development of their communities and to prepare a Sustainable Community Development Master Plan</p>

<p>Organisation, Si Racha District, Chonburi Province, through community participatory research process</p>	
<p>Projects related to strategy: Four-year Nakhon Nayok provincial development strategy (2018 - 2021)</p>	<p>Indications: 1. Strong economy 2. Quality society Goal: 1. Increase economic competition and generate income for gross provincial product 2. Enhance the quality of life for happy citizens 3. Nakhon Nayok is a livable city Strategic issues: Integrated agricultural and SME development are operated</p>

The financial worthiness of the investment shows how to make research understandable with basic concepts. The paper does not provide explanations in terms of economical mathematical analysis, but will explain how each term relates to products, what needs to be used and how much it approximately costs. However, for financial analysis, the researchers do explain calculations in terms of mathematical analysis. In this case, Labour (L) refers to community workers – 35,000 Baht; Physical Capital (K) refers to the food dryer machine, horizontal machine, warehouse, packaging bag – 900,000 Baht; Human Capital (H) refers to research and development of the ingredients – 2,000 Baht; Natural Resources (N) refers to bananas – 240,000 Baht; Technology (T) refers to food dryer machine, horizontal machine assuming K is the concept used. In the production function, physical capitals and technologies are similar, because when elder community members produce baked crispy banana, it needs to use many machines. These are physical capital. For technology, if elder community members can afford higher technological tools, it will lead to an increase in production. In other words, the technology produces more outputs within the same time. The means of creating the worthiness of investment is shown in Table 14 to calculate NPV.

Table 16: Cash Flow Projections

	Budget (Baht)	1 st month	2 nd month	3 rd month	4 th month	5 th month	6 th month	1 st year
Revenue								
Loans	1 million	-	-	-	-	-	-	-
Profit from using 100 kilograms of crispy banana in production	-	-	-	100,000	100,000	100,000	100,000	1,200,000
Profit from using 25 kilograms of crispy banana in production	-	-	-	25,000	25,000	25,000	25,000	300,000
Expenditure								
Invest in a banana mill	300,000	150,000	150,000	-	-	-	-	-
Hot air dryer	187,500	-	187,500	-	-	-	-	-
Vertical packaging machine	100,000	-	100,000	-	-	-	-	-
Banana slicing machine (Projected price)	60,000	-	60,000	-	-	-	-	-
Current assets	400,000	-	-	400,000	400,000	400,000	400,000	1,600,000
Others	152,500	-	152,500	-	-	-	-	-

Calculation of Present Value of Net Benefit (NPV)

The sum of the net benefits that has been adjusted for time. If the NPV value greater than 0 is worth the investment, the NPV value less than 0 is not worth the investment and the NPV value is 0 is equal to the cost, which will be calculated from the maximum and minimum profit per year which should be as follows:

$$NPV = -C_0 + \sum_{t=0}^7 \frac{B_t - C_t}{(1 + r)^t}$$

In the case of NPV that earns profit from using 100 kilograms of crispy banana in production:

$$NPV = -1,600,000 + \frac{1,047,500}{(1 + 0.1)^1} + \frac{1,200,000}{(1 + 0.1)^2} + \dots + \frac{1,200,000}{(1 + 0.1)^7}$$

$$NPV = 4,101,348.40$$

In the case of NPV that has received profit from using 25 kilograms of pork in production:

$$NPV = -1,600,000 + \frac{147,500}{(1 + 0.1)^1} + \frac{300,000}{(1 + 0.1)^2} + \dots + \frac{300,000}{(1 + 0.1)^7}$$
$$NPV = 721,359.80$$

From the calculation of NPV, calculated from borrowing from a financial institution 1,000,000 baht with 1% interest rate. In the case of using 100 kilograms and 25 kilograms of crispy banana, NPV values are 4,101,348.40 and 721,359.80 respectively, indicating that each value is greater than 0; therefore, suitable for investment.

Understanding investment for business purposes in Thailand, one cannot deny that banana is a popular Thai fruit. So, many producers use banana to transform into new products, for example, banana juice, banana candy, especially baked and dried banana chips that are the business product. The baked and dried banana chips market in Thailand has high competition; therefore, the baked and dried banana chips business in Thailand has many producers. Producers will compete with quality, price, taste, packaging and marketing, including consumers. Moreover, the products will be prepared with the assurance of quality and taste to customers. For this “Happiness Banana Shop” is a signal for quality. Pricing too low will jeopardise the branding criteria. Therefore, the prices for this product will be on par with the competitors’ existing snacks. Taste and nutrition will be the priority for the “Happiness Banana Shop” to target. The product will be ready to eat and can be carried along easily as it does not spill or spoil. The added advantage for this product is that it is sliced and coated with cheese and pizza flavour with collagen. So, it is ideal for today’s health conscious people. Apart from all these features, the product will be affordable for anyone. The target will be focusing on penetrating the market with every “class” and “age” in the society. Besides, consumers’ behaviour is related to the “Happiness Banana Shop” because eating is the main concept of free time. The Trend of Thai Consumers’ behavior (n.d.), mentions that Thai consumers are concerned about health and tend to consume supplementary food for their health. The supplementary food is an alternative to health care and easy to buy, also saving a lot of time. These results are shown in Table 17 – Table 22.

Table 17: Project Social Benefits

Stakeholders	Effect on high positive (+3)	Effect on middle positive (+2)	Effect on low positive (+1)	Effect on low negative (-1)	Effect on middle negative (-2)	Effect on high negative (-3)	Total
Rural Organisation	✓						+3
Community Scholar	✓						+3
Community Leader	✓						+3
University		✓					+2
Total							+11

Table 18: Conceptual Framework for Identifying Significant Risks

Issues to Consider	Potential Risk
Community and Environment	Community: If community members do not dress or protect themselves from the production process, illness can result. Also, if the production source is not clean, it is also a source of germs for producers and people in the community Environment: The problem that affects the environment is the release of rinsing water from the frying of crispy banana into the soil without an oil filter, which occurs because the process of producing crispy banana or deep-fried banana, causes a lot of oil, which may cause the soil to deteriorate
Operational	The operation requires time from project participants in which operational factors need to be suggested
Government policy	There is a risk of income tax due to not submitting to join SME business, therefore there is a high risk of income tax
Service recipients	The client is not open-minded to the new seller or is not brave enough to use the correct technology to develop the product. The recipient is not happy to participate in the project because the customer sees no benefit from participation and does not trust the giver
Economic	There are no distribution channels to expand the market, which may be a result of the sluggish economy

Table 19: Risk Identification by Process, Product and Results

Issues to consider	Potential Risk
Steps / Process	- Discussions and discrepancies in the conversation - Elder in community has no knowledge of product and packaging development
Product	- Packaging development has various experimental procedures resulting in high development costs - The development process takes a long time
Outcome	- People in the community may have conflicts between each other

Table 20: Possibilities and Severity of Risk

		Seriousness			
		low	medium	high	EXTREME
Likelihood	Low	E	D	C	A
	Medium	D	C	B	A
	high	C	B	A	A

Table 21: Guidelines for Treating Risks in Each Grade

Grade	Guidelines for reducing and mitigating risks
A	Actions taken to reduce the likelihood and severity of the risk. It is necessary to think quickly and act as soon as the project begins or before the project begins
B	Actions taken to reduce the likelihood and severity of the risk. Will be established and implemented once the project has been implemented
C	Actions taken to reduce the likelihood and severity of the risk. Should be determined and action taken if there is sufficient budget and support
D	To be acknowledged, but does not require any action, except that the risk level will become more intense over time
E	To be acknowledged, but does not require any action, except the risk level will immediately increase

Table 22: Guidelines for Risk Management

Risk	Earning Grade	Guidelines for Risk Management	Those Responsible for Applying the Guidelines	The Cost that will Occur from the Implementation of the Guidelines
If the production source is not clean, it is also a source of germs for producers and people in the community	A	Clean the frying area at least twice a week to prevent the accumulation of germs, including attention to cleanliness of every production process	Project Participants	Frying equipment cleaning fee
Releasing the container water from the frying of crispy banana into the soil without an oil filter	A	Laying the sewer system	Project Participants	Installation fee for sewerage system
There are no distribution channels to expand the market	C	Increase sales to major tourist spots in Nakhon Nayok province and increase online sales by promoting through Facebook Instagram	Project participants help expand the online markets	The cost of travel expenses on sales from tourist attractions and the cost of advertising on Facebook pages
Participants do not have knowledge of product and packaging development	C	Find information from organisations	Project participants	Travel expenses for attending the training

		related to product standards and participate in training sessions of the Office of Small and Medium Enterprises Promotion		
Packaging development has a variety of experimental steps resulting in high development costs	B	Study from finished products or hire production consultants	Project participants	Cost of production consultant fees

To build a business, the elder community actually needs money to pay for the costs of products, employees and places. The elder community alone might not be able to pay for all required costs adequately. Therefore, it needs to know how and where to find more money to build a business. According to Zwilling (2014), there are examples of where to find a supporter for startup businesses as follows: seeking a bank loan or credit-card line of credit; negotiating an advance from a strategic partner or customer; soliciting venture – capital investors; applying to local angle – investor groups; starting a crowdfunding campaign online; pitching the community’s needs to community members and neighbouring communities; and funding community startups.

For an elder community business to become an entrepreneurship as summarised in Table 7, the elder community must seek to start a crowdfunding campaign online, pitching the elder community’s needs to the nearest community, including the funding community’s startups. The elder community should create three stages of a business improvement plan. In the first stage, it starts from building a business. It needs to build a new business called “Happiness Banana Shop” and needs to consider all costs for creating the business. In the second stage, after the elder community’s products are sold, which should stabilise the business, then it can adjust the business strategies, which leads to the third stage. However, the most difficult stage is the first stage. The elder community needs to face many obstacles, such as consumers’ preferences, trends and marketing.

Conclusion and Implications

Strategic management and supplementary career development programs are the main ideas that the elder communities must investigate. In the analysis process, the project uses SWOT analysis to analyse the strengths, weaknesses, opportunities for the success and obstacles of the “Happiness Banana Shop.” In addition, the Balanced Score Card knowledge is used to determine the vision, mission, goals, strategies and operations to achieve various goals. In addition, the project organiser has calculated the interest, loans and returns if the project participants want to borrow money to expand the business, and for the clarity of the project initiation, the elder community used the NPV to analyse the cost of the project. It is worthwhile to note the tools analysed in this project. The project investment is a positive NPV value when considering the breakeven point, the benefits of the society must be considered. When this project is able to extend to Phase Two: product development plan (long term plan), it will create a model for the development of marketing strategies and small business development (SME) as a source of learning for the community. Implications: the potential SMEs information can be useful for other elder communities in preparation for seeking a suitable approach to building its own direction and emphasis on the local resources used effectively. Knowledge sharing via the internet can contribute to the information assessment in explaining the market conditions needed to attract the interests on sufficiency for earning extra revenue benefits. Moreover, the understanding of personal preferences is the main reason for serving the unique needs of the elder community. Basically, to understand the fundamentals of business, the community needs to understand the relations in all parts of business. There is a useful business plan, namely Business Canvas or Business Model. The business model tells the elder community to link in each activity from the inputs to the consumers buying the products. Recommendations are to enhance the sustainability of elder community enterprises. Furthermore, such projects will lead to understanding about Thailand’s economy and how to adapt and sustain the lives managing to survive in the changing world in the future. The role of local organisations building careers for the elderly should organise career categories for the elderly along with necessary skills.



REFERENCE

- Altaf, N. 2016. Economic Value Added or Earnings: What Explains Market Value in Indian Firm?. *Future Business Journal*. 2(2), 152 – 166.
- Bernanke, B.S. 1984. Permanent Income, Liquidity, and Expenditure on Automobiles: Evidence from Panel Data. *Quarterly Journal of Economics*. 99 (3), 587–614.
- Brooks, J.R. 2017. The Definitions of Income. *Tax Law Review*. 71, 253-309.
- Burtseva, T.A. & Chausow, N.Y. 2016. Measurement of Scorecard Balance. *International Electronic Journal of Mathematics Education*. 11(9).
- Carroll, C.D. 1997. Buffer-Stock Saving and the Life Cycle/Permanent Income Hypothesis. *Quarterly Journal of Economics*. 112 (1), 1–55.
- Charlot, S., Crescenzi, R. & Musolesi, A. 2015. Econometric Modelling of the Regional Knowledge Production Function in Europe. *Journal of Economic Geography*. 15(6), 1227-1259.
- Darby, M.R. 1974. The Permanent Income Theory of Consumption – A Restatement. *The Quarterly Journal of Economics*. 88(2), 228-250.
- Desai, M.A., Ferri, F. & Treadwell, S. 2005. Understanding Economic Value Added. Harvard Business School Background Note 206-016.
- Friedman, M. 1957. A Theory of the Consumption Function. Princeton: Princeton University Press. ISBN 978-0-691-04182-7.
- Gordon, D., & Vaughan, R. 2011. The Historical Role of The Production Function in Economics and Business. *American Journal of Business Education (AJBE)*, 4(4), 25-30. <https://doi.org/10.19030/ajbe.v4i4.4191>
- Hajkova, D. & Hurnik, J. 2007. Cobb-Douglas Production Function: The Case of a Converging Economy. *Journal of Economics and Finance*. 57(9-10), 465-476.
- Intajak, U. 2003. The study of learning patterns processes and adaptation of small and medium enterprise under project of creating new entrepreneurs. Thesis (M.Sc.) – Chulalongkorn University. URI: <http://cuir.car.chula.ac.th/handle/123456789/411>
- Jappelli, T. & Pistaferri, L. 2010. The Consumption Response to Income Changes. Annual Review of Economics, *Annual Reviews*. 2(1), 479-506.



- Kaplan, R.S. & Norton, D. 2005. The Balanced Scorecard: Measures that Drive Performance. *Harvard Business Review*. 83(7), 172.
- Keyes, J. 2010. Implementing the Project Management Balanced Scorecard. 1st Edition. Boca Raton Publication. 447 pages. eBook ISBN: 9780429104350
- Lyons, B., Gumbus, A. & Belhouse, D.E. 2003. Aligning Capital Investment Decisions with the Balanced Scorecard. *Journal of Cost Management*. 34-38.
- Mankiw, N.G & Shapiro, M.D. 1985. Trends, Random Walks, and Tests of the Permanent Income Hypothesis. *Journal of Monetary Economics*. 89 (5), 165–74.
- Musa, T. 2015. SWOT Analysis in Strategic Management and a Sample Application in Public. MPRA Paper 67213. University Library of Munich, Germany.
- Norreklit, H., Kure, N. & Trenca, M. 2018. Balanced Scorecard. The International Encyclopedia of Strategic Communication. <https://doi.org/10.1002/9781119010722.iesc0011>
- Romprasert, S. & Jermstittiparsert, K. 2019. Energy Risk Management and Cost of Economic Production Biodiesel Project. *International Journal of Energy Economics and Policy*. 9(6), 349-357.
- Palley, T.I. 2008. The Relative Permanent Income Theory of Consumption: A Synthetic Keynes – Duesenberry – Friedman Model. Economics for Democratic and Open Societies. Available at SSRN: <https://ssrn.com/abstract=1295588> or <http://dx.doi.org/10.2139/ssrn.129558>
- Somjai, S., Chankoson, T., & Jermstittiparsert, K. (2020). An Economic Analysis of Agricultural Production Function on the Paddy Fields of Thailand. *Entrepreneurship and Sustainability Issues*, 7(3), 2012-2025. DOI: 10.9770/jesi.2020.7.3(38).
- Tang, H., Huang, W., Ma, J. & Liu, L. 2018. SWOT Analysis and Revelation in Traditional Chinese Medicine Internationalization. *Chin Med*. 13(5). <https://doi.org/10.1186/s13020-018-0165-1>
- Wolman, B. B. 1973. Dictionary of behavioral science (1st ed.). New York: Van Nostrand.
- Zahra, M. & Sadeghian, A. 2015. Analyzing Balanced Scorecard with System Dynamics. *Advances in Environmental Biology*. *Gale Academic OneFile*, 186.
- Zwilling, M. 2014. Customer Experience' Is Today's Business Benchmark, Mar 10, 2014.