



Roi Et Rajabhat University

RERU ICET4

» New Normal



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Proceedings

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Conference Information

According to the current results from globalization, all sectors worldwide, including education, have severely been devastated by the impacts of COVID-19 pandemic. We all are waiting for this outbreak disease to be over and return to normal but education cannot wait. So continuing education through alternative or distance learning pathways, must be a top priority right now, to ensure the interruption to education is as limited as possible. While there is little to gain from such a fatal cause, it is vital that we also use it to make the 'new normal' in favor of the environment and ensure that no one is left behind.

While we live in this time when humankind possesses the most advanced science and technology, a virus invisible to the naked eye has massively disrupted economies, healthcare, and education systems worldwide. This should serve as a reminder that we keep making progress in science and research, humanity will continue to face challenges in the future, and it is upon us to prioritize those issues that are most relevant in the 21st century. We urgently need to support students, academicians, innovators, communications experts and all those who are positioned to provide education, whether through online learning and other innovative approaches.

Roi Et Rajabhat University, therefore, is pleased to invite researchers, educators and participants from all over the world to contribute their knowledge and wisdom with regards to research works. The contributions can include research activities, case studies or practices which will help to inspire interest in both the theory and practice of various topics. We welcome and invite presentations on any aspect of the theme including, but not limited to, the following fields: - Education - Humanities and Social Sciences - Business Administration and Economic - Science and Technology - Nursing and Health Sciences

The objectives of this conference aim to:

- Provide an opportunity for academics to present papers on traditional and contemporary features of their various studies,
- Promote academic research on education and technology features of their various studies,
- Enhance cooperation and promote better understanding among people from different cultures.

Organizers

Roi Et Rajabhat university, Roi Et, Thailand

In cooperation with:

- Office of Higher Education Commission
- National Research Council of Thailand
- Roi Et Province
- Roi Et Provincial Administrative Organization
- Roi Et Municipality
- The Roi Et Chamber of Commerce
- Buriram Rajabhat University
- Rajabhat Mahasarakham University
- Udon Thani Rajabhat University
- Ubon Ratchathani University
- Sisaket Rajabhat University
- Shimane Rehabilitation College, Japan
- Guizhou Education University, China
- University of North Texas, USA

Peer Reviewers

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Assoc.Prof.Dr. Nancy K. Votteler	Sam Houston State University, USA
Assoc.Prof.Dr. Vickie J. Mitchell	Sam Houston State University, USA
Asst.Prof.Dr.Andrey Koptelov	Sam Houston State University, USA
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Asst.Prof.Dr. Surachai Artkla	Roi Et Rajabhat University, Thailand
Asst.Prof.Dr. Orasa Kongtalan	Khon Kaen University, Thailand
Asst.Prof.Dr. Rajda Chaichit	Khon Kaen University, Thailand

Poster Presentation Schedule

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Community Product Development Guidelines A Case Study of Reed Mat Products, Khan Dong District, Buriram Province

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ABSTRACT

This research aimed to study guidelines for community product development a case study of reed mat products, Khan Dong District, Buriram Province. This research is a mixed method research. Theories adopted include the concept of business condition analysis (SWOT ANALYSIS) and business model canvans (BMC model). The sample groups were 15 members of the reed mats product group and 50 people in the Buriram walking street. The participatory action research methodology (Participatory Action Research: PAR) and the research instruments were observational interviews and small group chat setting up a community forum and satisfaction assessments of the customer. The results of the research were as follows: guidelines for community product development: case studies of reed products which consists of guidelines for the accounting system management, product identity and diversity product. This research has made reed mat products to be accepted and become a product in the Provincial Government GSB Yuwaphat Project.

Keywords : *Product development approach, Community product, Product mat papyrus*

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Introduction

Thailand's 20-Year National Strategy aims for the people of the country to have sustainable prosperity. Currently, Thailand has adopted the 12th National Economic and Social Development Plan by focusing on innovation in driving all aspects of development in order to raise the country's potential in all areas, especially in the development of inequality of human resources. Less and the people in the country have a better quality of life. The Government of General Prayuth Chan-ocha who was current prime minister, has a basic economic development policy, namely building a strong community economy, happy people, and has more.

The Government of General Prayuth Chan-ocha who was current prime minister, has a basic economic development policy, namely building a strong community economy, happy people, and has more income. (Office of the Nation Economic and Social Development Council, 2019). In the context of Buriram Province, government agencies have implemented national policies. The promoting product and development project the communities of each district in Buriram Province. There were the local products that are unique to the community especially in Khan Dong District, a district where community members use local raw materials from papyrus to be processed into community products. However, community products the reed mats have not been developed to increasing value and various fields. Therefore, in this research, the researcher intends to study community product development guidelines, case study of reed products that such products can create added value for members.

Research Objective

To study guidelines for community product development a case study of reed mat products, Khan Dong District, Buriram Province.

Literature review and hypotheses

Management scholar (Albert Humphrey) has said that developing any organization used the principle of organizational analysis or called SWOT Analysis which the analysis of factors is affecting the operation of both external factors (External Factor) and internal factors (Internal Factor) where external factors are considered difficult or uncontrollable factors, such as Politics, government, economy, law, technology, etc. The internal factors are factors that the organization can control, such as people, work, budget, etc. The elements of SWOT are S stands for strengths, which refer to the strengths or strengths that are internal factors that promote the successful operation of the organization. The organization's leader or good management must analyze the organizational flaws as the W instead of weakness and the O instead of opportunities which refers to opportunities that are external factors. This is useful to encourage the actions to have a better chance of success. A good corporate leader or management must see those opportunities and use them to gain an advantage in taking action. T is a substitute for treats, which is an

external barrier that may hinder execution. The corporate success, the leader does must analyze and the leader does everything possible to prevent or mitigate the impact of those barriers.

In addition, this research has led the concept of a business model called BMC (Business model canvas) to determine how businesses can adapt to generate additional income. How can it compete with the direct and indirect markets of the business? The business model called BMC model (Business model canvas) has 9 elements. Namely 1) customer segment 2) product value and presentation (value propositions) 3) customer channels 4) customer relationships 5) Revenue streams 6) key activities 7) things We need to have (key resources) 8) Who we have to do business with (key partners) 9) Cost structure, which BMC model will allow businesses to answer questions (Alexander O, & Yves P,2015, Ruchareka Wittayawuttikul,2017). There are 4 things to do in business, that is, what (product) do, do (sell) to whom, how and how worth it (financially). Therefore, in this research, SWOT and BMC model principles will be used to formulate guidelines for development. Research and bring to research conceptual framework and set guidelines for development on important issues as in the conceptual framework illustration 1

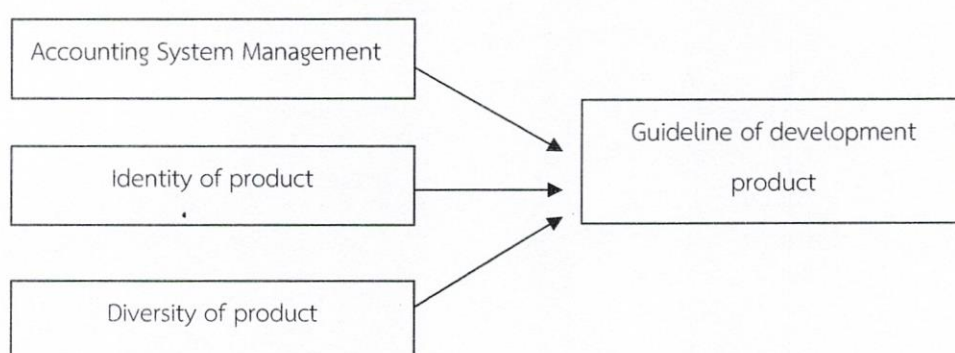


Figure 1. The conceptual of research

Research Methodology

This study is a mix method research is quantitative research and qualitative research, and the methods of research were as follows.

1. Sample and data collection

The populations were 15 members of the reed mats products group and 200 people in the Buriram walking street. Therefore, this research was to define the samples as follows: 15 members of the reed mats product group and 50 people in Buriram walking street market.

2. Research tools and collected data

This research is a combination of both qualitative and quantitative research. The concept was SWOT analysis, business model or BMC model (Business model canvas) and participatory research methods. (Participatory Action Research: PAR) as a tool, with details as follows:

Phase 1 Business context, participatory action research, and interview and observe

1. Organizational analysis, the determination of strengths, weaknesses, opportunities and obstacles of the Reed mats enterprise, Amphoe Khan Dong, Buriram Province. It has designed four open-ended questions.

2. Analysis of the business model or BMC model of the reed mats enterprise, Khan Dong District, Buriram Province, which has designed 9 open-ended questions.

Phase 2: The Insights studied a business development by using a participatory research process and analysis of business model or BMC model, and focus only internal factors that are controllable variables In which all 3 variables were extracted in order to design 9 open-ended questions with details as follows.

1. Accounting system management has 3 open-ended questions
2. Product identity has 4 open-ended questions
3. Product Diversity support 3 open-ended questions

Phase 3 Development of business performance monitoring

Customer satisfaction assessment at Buriram walking street, Muang District, Buriram Province by questionnaires, and analyzing the percentage.

This research, phase 1-2 collected data with the were 15 members of the reed mats products group and phase 3 collected data with the customer in Buriram walking street

3. Validity and reliability

Check the quality of tools as follows. Check content (Validity) by three experts to check the content coverage accuracy of expressions and languages used.

4. Analyze data

- 4.1 Phase 1-2 analyzed the data by summarize descriptive
- 4.2 The analyzed data as statistic a percentage

Result

The results of the research were found that the reed products group, Khan Dong District, Buriram Province. The concept of principles of organizational analysis : SWOT analysis principle and business model or BMC model, the researcher applied the principle of product development by focusing on solving problems from internal factors and being all important urgent issues in 3 areas.

1. Accounting system management. The results from the SWOT analysis revealed that the performance evaluation of the reed mat products group did not show clear numbers. The group is unable to assess the business trend, therefore leading to development guidelines. The researcher has suggested and facilitated the opening of a deposit account with a legitimate financial institution (Krung Thai Bank) and promoted the systematic accounting of the income and expenses of the group in accordance with the accounting principles. To bring to the cost analysis of the business and economical risk management for the

group. The group is reliable and they want to submit a loan with financial institutions to expand their business.

2. Product identity, the research results were based on BMC model for analysis. This research focus on the uniqueness of the product and create value for customers, it was found that reed mats have the use fabric dye and a chemical substance to dye the product. Therefore, in this research, the researcher has promoted and supported a team of trainers to provide a workshop for the reed mats to use natural color in the production process, such as Yor Pa has yellow, Anchan as Purple, Pa du has red, Krabok as pink and peka is blue, cassia has an orange color. The create value for customers in terms of product safety. Moreover, the government agencies encourage to product diversity, such as developing community at district level and providing opportunities for product groups to have a product display platform.

3. Product diversity, the promotion reed mats products to have a variety and difference of products original. The researcher applied the SWOT concept and applied the BMC (Business model canvas) principle, the reed mats were developed from the original reed mats become a pillow, a picture frame, a coaster and bags, etc.

In addition, when the product was developed and the product were displayed in the market, Buriram walking street that the market showed distribution of OTOP products every Saturday and Sunday. In addition customer satisfaction survey results found that the customers were interested and accepted the reed mats products at percentage 89 (price , product diversity) Moreover, the reed mats products participated in the Yuvapat Aomsin Project. And there are additional online distribution channels as well

Conclusion and suggestions

The results in this research supported the conceptual frame the community product development guidelines a case study of reed mat products, Khan Dong District, Buriram Province. The results of the research can be explained the concept of organizational condition analysis or SWOT analysis, the strengths, weaknesses, opportunities and obstacles are identified. The research to solve organizational problems by using SWOT analysis principles and business model or BMC model (Sunee B. , Bundit P , and Nattapong T, (2019).The researcher has applied the principles of product development, focusing on solving problems from internal factors and being all important issues urgently in all 3 areas and can discuss the results of the research as follows. Community product groups that were the local material (Marasri J.,2009). The reed mats group was important factors that cause the obvious outcome of the basic economic development policy is to build a strong community economy, happy people. and people have more income . The government agencies encourage the community products to have a systematic basic based on business administration principles which effected the creation of a community economy, the community is strong, people are happy and people have more income.

This research shows that accounting system management encourage to making a systematic record of income and expenditures. The reed mats group brings the income into the financial institution system. The group was acceptance and building credit for the business. The accounting records keeping the group informed of business trends and financial situation the result of research was consistent with the study of Ratchaneekorn Treesamutkul (2015) to aim conduct a study on the product industry pain relief herbs, the BMC model tool was critical components of a business and found that businesses focus on marketing such as the activity searching for customer needs and the group developed products to be unique. In addition, product identity was an important variable, it made the product more accepted by the customer, in line with the study of and finally, the product variety leads to greater customer utilization. The result this research consistent the result the research of Kittichai Chittrakool (2017) to aim the dentist device design was studied and the BMC model was used for analysis. The studies have shown that products must be unique and versatile.

Suggestions

1. This research is a mix method research and participatory action research to develop the reed mats product line which is a product group in the community of Khan Dong District , Buriram Province
2. Future research may be study the application of innovations in the process productivity of reed products, or the application of concepts of SWOT analysis and BMC model business models in research in other products and contexts another.

Acknowledge

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References

- Alexander O, and Yves P.(2015). Business Model Generation. Bangkok: WeLearn.
- Kittichai C.. (2017). Product Design based on Business Model Canvas and Quality Function Deployment Case study: A Design Mobile Dental. Thesis summited in partial fulfillment of the requirements for the degree of master of engineering in industrial engineering Suranaree University of Technology. 58-59.
- Office of the National Economics and Social Development Council. (2020). Thailand Twelfth National Economic and Social Development Plan (2017-2021). Bangkok. Office of the prime minister
- Ruchareka W.. (2017). Business Model Generation. Book Review. Mahidol University Library and Knowledge Center.1-2.

- Sunee B. , Bundit P , and Nattapong T. (2019). Achievement Evaluation Modeling for Non-Food Herbal OTOP Products. Princess of Naradhiwas University Journal. (1) 6, 106-117.
- Marasri J.. (2009). Resource characteristics, firm's capabilities and entrepreneur's abilities Influencing firm's performance: case of recyclable waste collecting and buying business in Eastern Thailand. Thesis submitted in partial fulfillment of the requirements for doctor of public administration. National Institute of Development Administration.