

Factors Affecting Community Management during Crisis for the Sustainability of Underprivilege People

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Abstract: Thailand prioritizes country development for sustainability, emphasizing local economy promotion and development via the Thailand 4.0 policy as the guideline for personnel potential enhancement to moving the country forward and competitiveness under a crisis and changing unpredictable circumstances. Therefore, risks are affecting the economy of the nation, community, and the living of people, particularly underprivileged people who has no life security and assurance. For this reason, the relevant agencies and communities should implement efficient management, so they are self-reliant and can survive. This research applied the concept of Sufficiency Economy to examine the factors affecting the success (primary factors and secondary factors) of community management during a crisis through the perspective of the community leaders council, who were the experts. Fuzzy Delphi Method (FDM) was used for data analysis based on experts' consensus. The findings indicated that the significant criteria affecting the success of the crisis community management of the underprivileged people is "Crisis Leadership" and the most significant sub-criteria is "Opportunity from Crisis" (8.50), followed by "Reliability" (5.38) and then, "Household Economy" (5.13) and "Food Stability" (5.13), respectively. The research results are practical for planning and for application as the data to promote and assist the underprivileged people in Thailand based on the sufficiency economy philosophy approach so that they can deal with any crisis accordingly, which will help to save time and the budget.

Keywords: *Sustainability, Sufficiency economy, Crisis Management, Community food bank, Community management*

1. Introduction

Crises contain three key attributes, which are threat, urgency, and uncertainty [1]. A crisis is an incident or situation that causes swift, negative, and severe impacts on life and property, such as one that affects the reputation and operations of an organization in the long term. The cause may be from nature or human actions. A crisis is a crucial threat to the infrastructure or core values and social norms; a stressful situation may partially lead to the failure of safety [2]. The impacts of damage from a crisis are various. Thailand has encountered many crises over the years, some of which have had significant economic, social, and environmental impacts. For example, the economic crisis in 1997 or "Tom Yum Kung" caused the Thai baht to float, finally resulting in a current account deficit and export

contraction, as well as overspending, indebtedness, and speculation. The outcome affected the economy and quality of life for Thai people, which highlighted the poverty and inequality inherent in the income distribution problem. The Asian Tsunami in 2004, which was a tragedy for mankind, was a natural and environmental catastrophe that caused the incalculable loss. Recently, the crisis that Thailand and the rest of the world are encountering is COVID-19. Thailand announced that it was one of the first countries, other than China, that had positive cases of the new virus, which the World Health Organization (WHO) officially named "Covid-19", which means 'Coronavirus disease starting in 2019'. The epidemic of this new virus is considered to amount to a severe crisis. It not only immediately impacts

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TABLE 1. SUMMARY OF CSF OF COMMUNITY CRISIS MANAGEMENT

Criteria	Sub-criteria	Description
1. Mental State	1.1 Resilient mind	The community members have a resilient mind without fear or anxiety about a crisis.
	1.2 Emotional and Risk Perception	The community members perceive and deal with their emotions and have positive thinking towards a crisis.
	1.3 Consciousness	Are conscious of finding a solution to prevent a crisis without panicking.
	1.4 Sacrifice	Cooperate and follow the guidelines with no Zero-sum thinking or resistance [such as not wearing a mask, no social distancing, etc.]
2. Information	2.1 Technology	The community members apply technologies to search for information sources to make decisions, resolve problems, and mitigate anxiety.
	2.2 Accurate Information	The community members receive adequate and accurate factual, not false information.
	2.3 Swift Information	Receive swift information in time after a crisis with constant updates.
	2.4 Volunteer	Volunteer to follow up, publicize information, and coordinate to support the community members.
3. Sustainability	3.1 Household Economy	Apply the concept of “Reduce the Expenses and Increase the Income,” plan on spending moderately, create a household account, grow homegrown vegetables, and raise animals for consumption or sale.
	3.2 Social Sustainability	Kinship relations practice the culture of sharing and participation.
	3.3 Environmental Sustainability	Household waste management and segregation for the safety of oneself, family members, the community, and reducing the risk of health problems.
	3.4 Internal Management	Strong and solid management within a sub-group in the community.
4. Community Food Inventory	4.1 Food Availability	Have adequate food, such as vegetables and animals available in the household, community, or surrounding sources during a period of crisis.
	4.2 Food Accessibility	The capability of the community members to acquire adequate nutrients and safe food for consumption during a crisis period.
	4.3 Food Utilization	Have adequate food to provide good nutrition, clean water for consumption, good sanitation, and health care. Physical well-being is sufficiently supported during a period of crisis.
	4.4 Food Stability	The community members can access sufficient food with no risk of inaccessibility as the result of a crisis (such as economic crisis, climate change, or COVID-19).
5. Crisis Leadership	5.1 Smart and Swift Decision-making	The leader can make a swift and adequate decision to control a situation or crisis in the community appropriately.
	5.2 Collaboration	There is a suitable collaboration between external agencies, networks, and other organizations to support and resolve problems during a period of crisis.
	5.3 Reliability and Trust	Provide consultations and set up a coordination center to service community members.
	5.4 Opportunity from Crisis	The leader uses the crisis to improve the community, such as to create harmony.

Source: Adapted from Sumet Tantivejkul [7]

health and difficulty in living, but also the economy and society in the long term, both directly and indirectly. It intensifies the economic slowdown from the previous phase and affects the grassroots, which is the majority of the Thai population.

As a result of the crisis, countries worldwide have attempted to deal with the issue efficiently and effectively for the sustainability and survival of humanity. It can be

management is the key tool and challenge in order to survive and adjust oneself to find a solution to a crisis.

Thailand has implemented the Sufficiency Economy Philosophy concept to promote living and for use as guidelines for community management so that community members are self-reliant and able to cope with crises. It is the process of development aiming to change the work procedure to emphasize people and resources as a way to

steer development and assist agriculturists, who comprise the majority of the population, as well as the underprivileged and vulnerable portion of the population who have no basic assurance and are unable to access aid [8]. This includes those who face economic, social, educational, public health, political, legal, disaster and the threat of war. People who lack the opportunity to access basic government services and are underprivileged tend to be the most in need [9]. To process crisis management effectively, there are multiple effective frameworks [10], which comprise interdisciplinary learning and systematic management [11][12]. It could be seen that most researches give priority to the model and the method for crisis management in business organizations [13], meaning crisis management for specific matters [14] [15]. There is little to no research about crisis management for the community or the underprivileged people who comprise the majority of people in Thailand and globally. Regester [16] stated that crisis management should be ideal with time and resources. Therefore, this research applies the 5 self-reliance principles proposed by Sumeth Tantivechakul [7], which is a systematic concept for people to implement for self-reliance based on the sufficiency economy philosophy that is consistent with Thai people’s lifestyle in order to find “the important factors for the survival of underprivileged people in Thailand during a crisis”. The acquired information would be useful for an organization’s decision-makers or planners to enhance quality of life for the underprivileged people in Thailand, thus making them become more self-reliant and able to survive during a crisis. The explanation and reference for each factor are summarized and shown in Table 1.

2. Materials and Methods

2.1. Questionnaire Design and Data Collection

This research used a Fuzzy Delphi method questionnaire that was developed and designed based on the documents, articles and research studies related to crisis community management in order to collect the data. The criteria and sub-criteria used were from the five concepts of self-reliance of Sumeth Tantivejakul, which were classified into five aspects consisting of 20 sub-criteria, as shown in Table I. The experts assessed each sub-criteria to evaluate the significance with the range of scores from 1 to 10, as shown in Table 2. The criteria of “Mental State” and the sub-criteria of “Resilient Mind” were given the scores for significance at 3 - 9 by the experts.

TABLE 2. Shows the Max-min Score from the experts about the key factors of community crisis management

Criteria	Sub-Criteria	Definition	Score
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1. Mental State	1.1 Resilient mind	The community members have a resilient mind without fear or anxiety about a crisis.	1 2 ③ 4 5 6 7 8 ⑨ 10
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The 18 experts who evaluated the questionnaire were selected from among the folk philosophers, community leaders and village health volunteers at Sub-Thavee village, Chumphon province, where the community members were underprivileged people who were selected to join the Equitable Education Fund Project 2019, had been living in the village for 25 years and had applied the sufficiency economy philosophy for 10 years. The questionnaire was reviewed by five experts in the sufficiency economy philosophy prior to its implementation.

2.2. The Fuzzy Delphi Method (FDM)

The FDM process of Ishikawa [17] is detailed below.

First, measure the overall distribution function $F_1(X)$ of the peak level of correspondence with the overall distribution function $F_2(X)$ of the least level of correspondence for each evaluation element A_i .

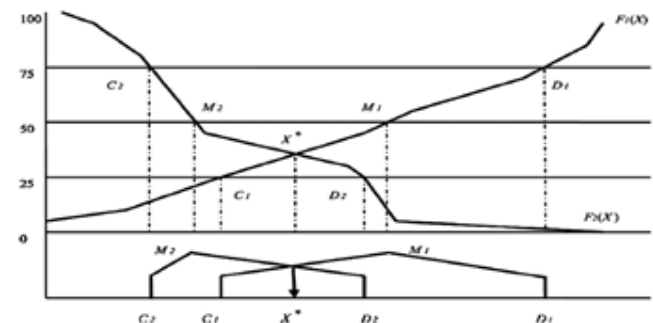


Fig. 1. Max-min FDM forecasting
Source: Ishikawa [17]

Next, measure the lower quartile, median and upper quartile of $F_1(X)$ and $F_2(X)$ respectively. The matching data is shown by symbols (C_1, M_1, D_1) and (D_2, M_2, C_2) .

Third, the degree of significance of the subject matches the point of intersection between (C_1, M_1, D_1) and (D_2, M_2, C_2) . The combined component of the two factors is called the X^* reference value, which links to the "gray zone."

Further, the overall distribution function $F_1(X)$ of the peak level degree of correspondence and the overall distribution function $F_2(X)$ of the least level of correspondence both have a gray area, as seen in Fig. I. The adjacent areas of their respective lower quartiles, medians, and upper quartiles (C_1, X^*, D_2) are seen as corresponding gray areas (Wu et al., 2014).

The estimated X_i value of the A_i evaluation component can be derived from the aforementioned measurement. To identify the significant variables, it is necessary to set a threshold value that differs from the specifications of separate studies. The calculation factors suited to the study will be expressed using the maximum value ‘S’, as below:

If $X_i < S$, then A_i will be rejected.

If $X_i \geq S$, then A_i will be accepted as the assessment factor.

3. Results

3.1. Expert Demographic Profile

Table III. Summary of the CSFs of Community Crisis Management

<i>Criteria</i>	<i>Sub-criteria</i>	C_1	C_2	D_1	D_2	X^*
1. Mental State	1.1 Resilient mind	9	6	10	7	8.00
	1.2 Emotional and Risk Perception*	7	4	10	7	7.00
	1.3 Consciousness	8	4	10	7.75	7.88
	1.4 Sacrifice*	7.25	5	10	7	7.13
2. Information	2.1 Technology*	7	4	9.75	6.75	6.88
	2.2 Accurate Information	8	5	10	8	8.00
	2.3 Swift Information*	7	3.25	10	7.75	7.38
	2.4 Volunteer	8.25	6	10	7.75	8.00
3. Sustainability	3.1 Household Economy	8.25	5	10	8	8.13
	3.2 Social Sustainability	8	5	10	8	8.00
	3.3 Environmental Sustainability	8.25	5.25	10	7.75	8.00
	3.4 Internal Management*	8	5	9	7	7.50
4. Community Food Inventory	4.1 Food Availability	8	5	10	8	8.00
	4.2 Food Accessibility	8.25	6	10	7	7.63
	4.3 Food Utilization	8.25	5	10	7.75	8.00
	4.4 Food Stability	8.25	5	10	8	8.13
5. Crisis Leadership	5.1 Smart and Swift Decision-making	8	4	10	8	8.00
	5.2 Collaboration*	7	4.25	10	8	7.50
	5.3 Reliability and Trust	9	5.25	10	7.75	8.38
	5.4 Opportunity from Crisis	9	6.25	10	8	8.50

Note: * indicates the criteria with $X^* \leq 7.50$, which had been deleted.

A total of 40 sets of the questionnaire were distributed and 30 sets were returned. The valid response rate is 75%. Each group of experts took part in the survey. The results showed that 12 of the experts were male (40%) and 18 were female (60%). Most of the respondents were aged 51-60 years old (60%) and graduated with under a bachelor’s degree (76.67%).

3.2. The CSFs of Community Crisis Management

The analysis result of the experts’ opinion data using Max-min FDM, there are scores of all the factors X^*

ranging from 6.88-8.50. Thus, in this research, the threshold was set to be “7.50”. That being said, if the “ X^* ” value of any sub-criteria was equal to or less than “7.50”, it implied that the criterion was insignificant or had a less significant effect on the success of crisis community management of the underprivileged people and would be omitted. After the evaluation using the FDM, the six sub-criteria that had less significance were discarded (as shown with * in the sub-criteria) and only 14 significant sub-criteria for the success of the crisis community management of the underprivileged people remained, as shown by the research

results in Table V. Based on the study, most experts shared the view that the main factors affecting community management for the underprivileged during a crisis have the highest score at 8.50, which is “Opportunity from Crisis”, while “Reliability and Trust” are second at 8.38. The two factors are included in the criteria for “Crisis Leadership”. The third highest factors are “Household Economy (8.13)” and “Food Stability (8.13)”.

4. Discussion and Conclusion

Leadership takes an important role in guiding the organization to survive and overcome a crisis [18]. Therefore, the individual leader characteristics for organizational management or community management for the underprivileged during a crisis are excessively important, especially leadership with experience [19]. The experts shared their mutual agreement that leadership in “opportunity from crisis” and “reliability and trust” during a crisis is very necessary to guide the underprivileged to overcome the difficulty. Crisis management is a major characteristic of crisis leadership [20].

The Thailand 4.0 Policy aims to develop and distribute income to people as a means of offsetting poverty by employing the sufficiency philosophy as it indicates how to live and behave in every way, from the family level to the community level. It could be the lifestyle of people that assists them to have self-dependence and sustainability in globalization currency and the changes that occur, including crises. “Household Economy” is a sub-criterion of “Sustainability”. It gives priority to household accountancy. Expense reduction-income increase is regarded as the foundation of strength in combination with “food stability”. Obviously, people who reside in Sub-Thavee Village in Chumphon are regarded as underprivileged in the province, especially during the Covid-19 crisis. However, they have been able to overcome the crisis by applying the sufficiency philosophy due to having a sufficient food supply, and the leaders have turned the crisis into an opportunity.

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