

[DOI: 10.20472/IAC.2019.047.017](https://doi.org/10.20472/IAC.2019.047.017)

## **CHATREE PREEDAANANTHASUK**

**Naresuan University, Thailand**

# **RESCUED WILD BOAR SOCCER TEAM MEMBERS IN THE THAM LUANG CAVE: TRANSFORMING AN IMPOSSIBLE MISSION TO A POSSIBLE MISSION**

### **Abstract:**

When problems have solutions in hand, they are not too difficult to solve. On the other hand, for an unprecedented case which has many unknown factors and threatens the survival of the victims, it is risky and challenging. The Tham Luang Cave is located in the Maesai District, Chiangrai Province, Northern Thailand. Thirteen members of the Wild Boar Soccer Team decided to visit the cave after they finished practice. Although some members had visited the cave in the past, this time, conditions in the cave were different from their previous visits. The rainy season came earlier than usual and heavy rain caused them to be trapped in the cave for more than two weeks. As soon as it became known that they were still in the cave, a rescue operation was mounted.

In the first stage, there were many limitations for rescue operations in terms of details of the cave map, cave diving skills and rescue operation techniques. However, international cooperation together with systematic local management could make the rescue mission possible.

The rescue of the Wild Boar Soccer Team members is a unique case. This study aims to better understand the crisis management process. Knowledge of crisis management is still limited and more work needs to be done to enhance the field. Therefore, this study illustrates the framework of integrated crisis management through an analysis of the rescued Wild Boar Soccer Team members case. Research Results Analysis help to shed new light on the crisis management process and to provide lessons learnt from an unprecedented crisis management case.

### **Keywords:**

Tham Luang Cave, Wild Boar Soccer Team, Crisis Management, Lessons Learned, Rescue Plan

**JEL Classification:** M10, D83, H12

## Introduction

The Tham Luang Cave is located in the Maesai District, Chiangrai Province, Northern Thailand. Its length is around 10.3 kilometers and is regarded as the fourth longest cave in Thailand, but there is little data related to it (National Geographic, September 2018, p. 36). Martin Ellis, a British Cave Diver, mapped the Tham Luang Cave some time ago. Vern Unsworth, also a British Cave Diver who lives in Thailand has explored the Tham Luang Cave many times over the last 6 years with the help of a Thai buddy caver named Kamol Khunngarmkwamdee, who works as a security guard at Maesai Prasitsart School in Chiangrai, and last explored it in late May 2018. In conjunction with Martin Ellis's map and Vern's recent exploration data assisted the rescuers with first-hand information.

Heavy rain usually starts in July, so the T-Junction near Chamber 6 in the cave was inundated with water. There is a signboard in front of the cave warning visitors not to enter during July-November because of flooding.

The Wild Boar Soccer Academy Club has been established for more than 2 years in Maesai District, Chiangrai Province. More than 80 youths have joined the club, and in mid-2018 they all trained very hard to be qualified for competition in the 2018/2019 Youth Football Tournament. Some of the Team members had visited the Tham Luang Cave before, and were familiar with the route inside, and at the time there was no flooding. The coach suggested that the team visit the Tham Luang Cave after they finished their football practice.

On June 23, 2018, the team trained in the morning and their coach posted the Wild Boar Soccer Team training via Facebook Live. After they finished, the coach and 12 young boys agreed to visit the Tham Luang Cave in the afternoon. At around 5 p.m. before park rangers of the Tham Luang Khunnam-nangnorn Forest Park went home, Petch Phomliang found a motorcycle and 11 bicycles in front of the entrance of the Cave. He reported to his superintendent and searched the cave for signs of people inside it. Chukiat Sipun who knew the route inside the cave very well was called to help Petch to explore inside. Park rangers walked until they reached Chamber 3 and found shoes, bags. They continued to the T-Junction where they found another bag, and by this time the water had risen causing a level of flooding with a strong stream of water flowing continuously. Park rangers were unable to rescue the coach and youths from the cave because it was beyond their capabilities. The situation very quickly turned into a crisis which became imperative to rescue the team trapped in the cave as soon as possible.

Rescued Wild Boar Soccer Team Members Case is the unprecedented crisis case. Crisis is a rare and unspecified situation and threatens survival, then it is essential to make decisions and respond to the crisis urgently (Preedaanathasuk, 2013, p. 29), and crisis cases are rarely disclosed, therefore knowledge of crisis management is still limited. Tsui (2004, pp. 495-496) proposed that the Western-orientation management knowledge might be dominant, but it is essential to develop value added global management knowledge, especially in contexts that are different from the Western ones. Moreover, Pearson and Clair (1998, p. 74) noted that crisis management research must fit the reality of practice. Therefore, it is essential to enhance crisis management knowledge from empirical study in the East Asian context. This study aims to investigate factors behind the successful rescue of the Wild Boar Soccer Team members.

Lessons learnt from the case can enhance knowledge of crisis management and be applied for effective rescue plan improvement. First, the literature review covered crisis management, strategic issue diagnosis and crisis communication. Second the framework of integrated crisis management was synthesized and illustrated using the Rescued Wild Boar Soccer Team members' case. Finally, the research results and limitations are discussed and suggestions for future research are given.

### **Crisis Management**

Most crisis management concepts focus on reactive crisis management which is too narrow. Pauchant and Mitroff (1992, p. 135) proposed the three essential types of crisis management and their five phases model which helps to explain relationships of Proactive Crisis Management, Reactive Crisis Management and Interactive Crisis Management. Before a crisis occurs, it is likely to have warning signs. When an organization detects such warning signs, it is likely to initiate prevention mechanisms. Signal Detection and Prevention are phase 1 and phase 2 in the Proactive Crisis Management. When a crisis occurs, an organization must control the damage and try to recover to normalcy soon. Damage Containment and Recovery are phase 3 and phase 4 in the Reactive Crisis Management. Lesson learning is important for crisis management. Without learning from crisis experience or crisis prevention, a crisis may recur, therefore, learning is phase 5 in the Interactive Crisis Management.

### **Strategic Issue Diagnosis**

When a decision-maker in an organization detects a strategic issue, he attempts to diagnose the degree of urgency and the feasibility of taking action, then realizes that the current operation mode is inefficient and inappropriate (Dutton and Duncan, 1987, pp. 282-283). Therefore, a decision-maker initiates other alternatives to respond to the strategic issue. When a decision-maker in an organization interprets consequence of issue as substantial, he is likely to initiate a prevention mechanism to avoid a crisis. On the other hand, he is likely not to initiate a prevention mechanism for consequence of issue as marginal.

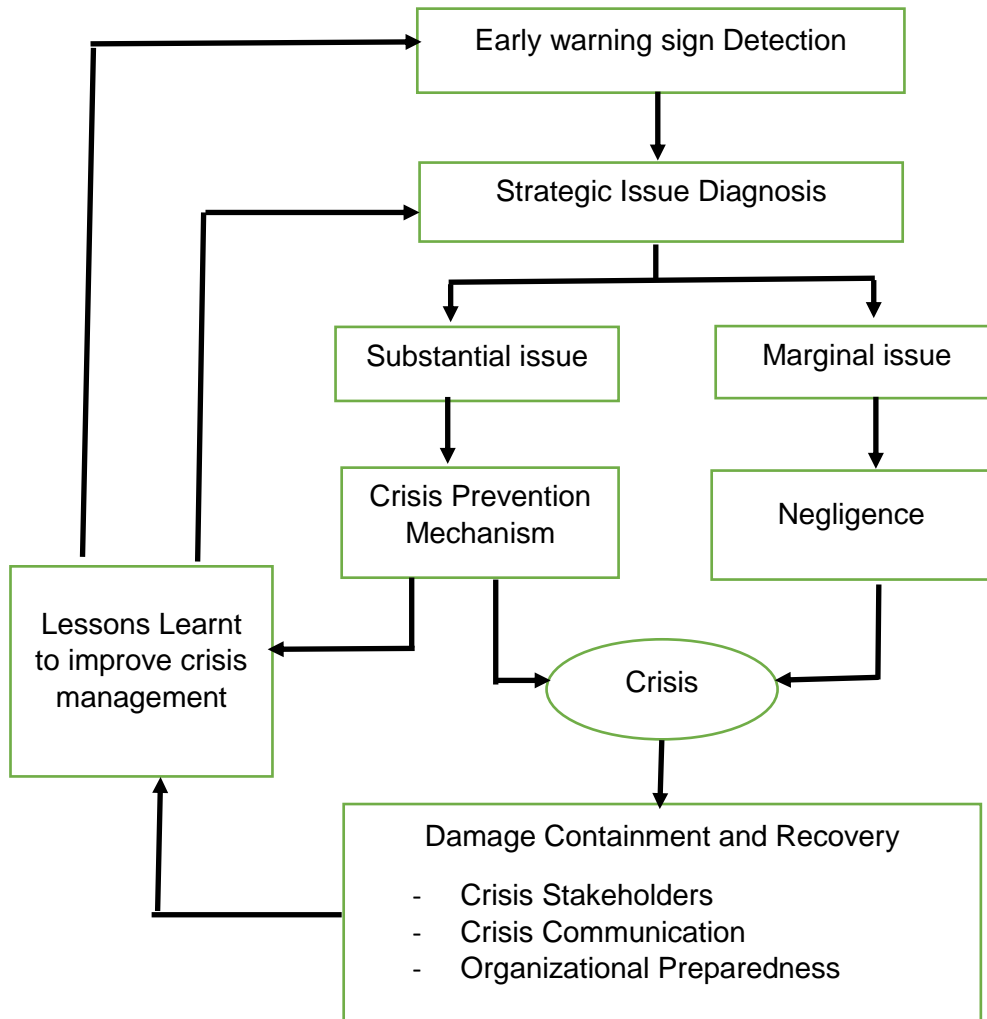
### **Crisis Communication**

Effective communication with stakeholders during a crisis is important because it can lessen the risk of the chance of escalation, and contain damage to the organization's reputation (Kaufmann, Kesner and Hazen, 1994, pp. 29-30). An organization must communicate with both internal and external stakeholders, if an organization can make those stakeholders confident with effective communication tool, it will help the crisis management to return to normalcy easily (Preedaanantasuk, 2013, p. 33). Therefore, an organization should realize who crisis stakeholders are and how to handle them. It is essential for crisis managers to inform stakeholders what they should do and what they can do during a crisis (Coombs, 2012, pp. 113-114) because good cooperation and mutual understanding between an organization and stakeholders can make crisis management run smoothly.

## Framework of Integrated Crisis Management

To better understand the crisis management process, this study extends the work of the three essential types of crisis management and their five phases (Pauchant and Mitroff, 1992) to propose the framework of integrated crisis management (see Figure 1) from the perspectives of strategic issue diagnosis, and crisis communication.

**Figure 1: Integrated Crisis Management**



There are always early warning signs before a crisis occurs. When an organization detects early warning signs, it becomes the turning point to prevent crisis or allow crisis occurrence. Even the same crisis, organizations may interpret consequences of the crisis differently, and it depends on their strategic issue diagnosis. When an organization interprets consequence of issue as substantial, it is likely to initiate prevention mechanism, while on the other hand, it is likely to neglect any prevention mechanism when it interprets consequence of issue as marginal. No matter how well crisis prevention an organization prepares, some crises are beyond

organizational prevention mechanisms. As a result, an organization tries to control the degree of damage and return to normalcy quickly. How well an organization can control the degree of damage or how fast an organization returns to normalcy depends on who the crisis stakeholders are, how effective the crisis communication is, and how well organizational preparedness is.

## **Research Methodology**

Because crisis management is a sensitive issue, only a few of them disclosed their crisis management experience especially failure in crisis management. Most previous crisis management research focused on Western case studies and researchers did not analyze crisis management by the framework of Integrated Crisis Management. Thai organizations are different from Western contexts and Crisis Management Case Analysis in Thai contexts is lacking.

Crises are rare and unspecified situations, so it is difficult to test the hypothesis of many crisis cases. To better understand crisis management for unusual and public interest crisis case, it is essential to select an in-depth case study analysis method. Yin (2003, pp.40-41) remarks that a Single-case study fits with a unique case which rarely occurs, is worth documenting and analyzing.

The study aims to investigate factors behind the successful rescue of the Wild Boar Soccer Team members. There are some unknown factors behind the successful mission, Yin (1993) notes that Explanatory Case Study method helps to explain relationship of causes and effects of the unprecedented phenomenon. Therefore, an Explanatory Single-case study was selected for this study.

Furthermore, multiple sources of evidence technique was applied to make this study more robust through the concept of data triangulation. Documentary information related to the Rescued Wild Boar Soccer Team members' case from various sources was collected and analyzed. In addition, Interviews of stakeholders related to the case in various sources of media were decoded, compared and analyzed. Archival records related to the Wild Boar Soccer Team were collected and analyzed. Following the concept of data triangulation involving multiple sources of evidence to confirm findings, it will help this study to confirm the accuracy of findings and determine the validity of the data (Krathwohl, 1998). This study limited its investigation to the crisis management process based on the framework of integrated crisis management (in Figure 1).

## **Case Selection**

Rescued Wild Boar Soccer Team Members Case was selected because it was an exemplary Thai case that was unusual and of great public interest. Moreover, it presents integrated crisis management which previous researchers have not investigated yet in terms of an Integrated Crisis Management process in Thai organizations. This case was unprecedented and the analysis of it will help to better understand not only Thai crisis management, but the knowledge learnt from this case can also be applied to crisis management in other countries.

## **Rescued Wild Boar Soccer Team Members Case Analysis**

This study analyzed the rescued wild boar soccer team members case based on the framework of integrated crisis management as follows:

### **Early warning sign detection and Strategic issue diagnosis**

Although some youths and their coach had visited the Tham Luang Cave before, they knew the route inside and they realized that the flooding season had not started yet. The warning signboard in front of the cave warned visitor not to enter during July-November. The Coach and twelve youth soccer players visited the cave at the end of June and decided that it was safe enough to enter. However, the rainy season had arrived earlier than usual, and heavy rain had inundated the route into the cave blocking the entrance, and as a result, they were trapped inside. The rescue of the 13 Wild Boar Soccer Team members became a substantial issue.

### **Crisis**

On June 24, 2018, after Vern Unsworth heard the news, he surveyed the route outside the cave to try and determine how to rescue 13 Wild Boar Soccer Team members. Narongsak Osottanakorn, the Governor of Chiangrai Province, went to the Cave to take control of the situation. Divers from local rescue teams tried to locate the 12 young boys and their coach but lacked the necessary skills to dive through T-Junction in the cave to rescue them. Narongsak realized that the rescue was too technical for local staff to cope with, so he requested the help of the Royal Thai Navy Seals to assist in the rescue.

At 2:30 a.m., June 25, 2018, divers of the Royal Thai Navy Seals arrived in Chiangrai, and at 9 a.m., they dived to Chamber 7 and 8 but could not find the team. Although the Royal Thai Navy Seals are well trained, they are not experts in cave diving.

The rescue issue was not easy because it was beyond the capabilities of domestic staff, and turned into a crisis that threatened the survival of 12 young boys and their coach. With no food, there was a high risk of them dying if they had to stay in the cave for a long period of time. The Thai Government took this issue seriously, so the Minister of Interior and the Minister of Tourism and Sports went to the Tham Luang Cave, and had a meeting to plan more appropriate solutions.

Vern Unsworth knew many specialist cave divers and he realized that the time was running out to rescue the team trapped in the cave, so he asked the Minister of Tourism and Sports to urgently contact the British Cave Rescue Council (BCRC) members, Rob Harper, Rick Stanton MBE and John Volanthen, who are the world's best cave divers, to rescue the team.

### **Damage Control and Recovery**

After various news stations reported on the Thailand Cave Rescue, there was a massive influx of help from Domestic and International people. Many volunteers supported the Rescue Operation in terms of water pumps, food and beverages, laundry, cleaning, exploring the holes in the cave.

At 8:00 p.m., June 27, 2018, Rob Harper, Rick Stanton and John Volanthen arrived at the Tham Luang cave, and the next day the three British divers tried to access the team, but heavy rain and strong streams forced them to halt the operation. USPACOM sent their staff to facilitate the

Thai Government for the rescue mission. 100 volunteers searched the holes in the cave to connect to the boys. One of the hurdles for cave divers was the high level of water in the cave. Thanet Natisri, Groundwater Engineer, observed the level of water and searched how to reduce the level of it in the cave. Joshua Morris, a Thai-speaking American, Caving and Expedition Leader became the interpreter for both the Thai local staff and international staff to cooperate together for the rescue mission. Undergrounded water areas at the Saithong Cave were pumped out to reduce the level of water in the Tham Luang Cave. However, the farmers who lived below the Tham Luang Cave would suffer from the flood but realized that the team members were in a critical condition making this issue more important than their rice fields. Therefore, they allowed their fields to be flooded. The drainage system was effective, and the level of water in the Cave reduced enough to allow the divers access to the cave.

On June 29, 2018, General Prayuth Chanocha, the Prime Minister visited the Tham Luang Cave and had a meeting with the Chiangrai Governor at the Rescue Operation Committee Center. He allowed the Chiangrai Governor to become the Rescue Operation Committee Center Commander and he respected and followed the Chiangrai Governor's decision-making. Moreover, the Prime Minister consoled families of the boys who were waiting for their children to come out of the cave. Because there were rumors during the crisis, Narongsak, the Chiangrai Governor, decided to use single command to communicate with stakeholders to avoid rumors which helped to control situation. He used his provincial website as the reliable official information source to deliver the facts regarding the situations.

At 10:00 p.m., July 2, 2018 Narongsak announced at the press conference that the cave divers had confirmed that all the Wild Boar Soccer Team members were alive and safe. This news made everyone ecstatic, however, the hardest issue for the rescue operation committee was how to bring all of them out safely.

Lieutenant Colonel Dr. Pak Laharachun, a highly trained diver and doctor accompanied the Royal Thai Navy Seals in taking some food supplies to the boys and stayed with them to comfort and support them.

The engineering team tried to find the holes of the cave which were close to the location of the boys. However, it was estimated that it would take many months to dig holes to reach them. The Rescue Operation Committee Center discussed the possibility to rescue the boys and their coach safely. The monsoon season would be coming soon that would cause hurdles in rescuing all of them and the level of oxygen in the cave decreased to dangerous levels. It would have been a great risk to allow the boys and their coach to remain in the cave for many months.

Because oxygen was important for survival in the cave, and low levels of it could make the boys sick, so the Royal Thai Navy Seals carried many oxygen tanks to set a baseline for the divers. On July 5, 2018, Petty Officer 1<sup>st</sup> Class, Saman Gunan, former Royal Thai Navy Seal, was carrying oxygen tanks from Chamber 3 to the T-Junction in the cave but there might be some problems with his mask and oxygen tank, he became lost conscious and stopped breathing, and he later died. His buddy tried to save his life, but it failed.

## **Lessons Learnt**

After Saman died during the rescue operation, the Committee were determined to rescue all Wild Boar Soccer Team members and not allow further problems to occur. The Committee decided that all the boys would be brought out of the cave by divers assisting them, but it was a very dangerous process because if the boys had panicked during diving, they would probably have died. How did the rescue team avoid the boys from panicking? This big question motivated the Rescue Operation Committee to find alternatives. US Navy Seals proposed using full-face masks for the boys to prevent any accidents during diving. In addition, Dr. Richard Harris, an Australian physician and cave diver, consulted with Lieutenant Colonel Dr. Pak Laharachun to use a sedative for the boys by injecting Alprazolam while they were diving with the special cave divers, which would help prevent panic. Because this mission was very risky, any mistakes while carrying the boys could kill them. The divers rehearsed in a swimming pool with local volunteer children, to make sure that there would be no mistakes when executing the plan.

On July 8, 2018 Narongsak mounted the final mission to carry the Wild Boar Soccer Team members out of the Tham Luang Cave. He ordered all the media to move out to allow ambulances to carry the Team members from the entrance of the cave to a helicopter which would transfer them to hospital. The first group of four were carried out of the cave safely and then transferred by an ambulance to a helicopter that took them to the Chiangrai Prachanukroh Hospital. On July 9, another four were carried from the cave safely and transported to the hospital, and on July 10, the last group of five were carried out safely and sent to the hospital. On the same night, all cave divers and the Royal Thai Navy Seals also came out of the cave safely that completing the mission.

## **Discussion and Conclusion**

The Rescued Wild Boar Soccer Team members case is unique and unprecedented with the lessons learnt from it can contribute to academics, policy makers and practitioners. The young boys and their coach were familiar with the Tham Luang Cave and they underestimated the danger of it. The rainy season came earlier than usual trapping them in the cave by flooding.

Awareness of the dangers of the Tham Luang Cave is regarded as a strategic issue for this case. Although there is a warning sign in front of the cave, the young boys and their coach understood that it was safe enough to enter the cave because it was only the end of June. Thailand had never experienced a cave rescue in the past, and local divers lacked cave diving skills because they had never trained for it. This issue triggered a crisis when the impact of it was found to be beyond the capabilities of local staff to control. Evidence is consistent with Mahon and Cochran (1991) which pointed out that routine issues become crises because of consequences of issues and organizational response.

With the limitation of local staff skills, it was impossible to rescue the young boys and their coach. Although the Chiangrai Governor requested the Royal Thai Navy Seals to carry out the rescue, they had never been trained to dive in the narrow caves and murky water, therefore, they were unable to reach the boys and their coach. Time was of the essence because the people trapped in the cave had not had any food or drink for several days. It reflects that organizational preparedness has relationship with a degree of damage and recovery time.



For this case study, it was found that there were many stakeholders to get involved. Not only the victims who were trapped in the cave and their families suffered, people around the world also got stressed when they watched the news which was reported by international news reporters that the victims had not been found. The Thai Government sent thousands of Royal Thai Army staff to facilitate the rescue operation (National Geographic, September 2018) and International Army staff helped to facilitate the Thai Government for this mission. Experts in each field and around 200 divers from various countries took part in the Rescue Mission. Moreover, many groups of volunteers, public and private companies supported and facilitated the rescue operation in terms of food and beverage, laundry, cleaning, water pumps, electrical supply, water tubes, mobile phone signals and internet providers (Suwanapichon, 2018). It is estimated that around ten thousand people participated in the mission (National Geographic, September 2018). With good cooperation regardless of race, nationality, religion, occupation, gender or age, the Rescue Mission was able to overcome hurdles and be completed. It shed light on crisis stakeholder management which helped to speed up the recovery time and transform an impossible mission to become a possible one.

All audiences around the world focused on when the rescue team would find the young boys and their coach and how the rescue team would bring them out of the cave safely. News reporters competed with each other to present the most updated news to audiences. It was inevitable to have rumors during the crisis, so the Chiangrai Governor as the Rescue Operation Committee Center Commander realized that it was critical to control the situation and staunch any rumors that may obstruct the mission and threaten the survival of the young boys and their coach. Narongsak was very smart to select his provincial website as the official tool as the single command mode to communicate the real facts to the world audience.

Whenever audiences and mass media followed the updated information on the provincial website, they always found the facts, so it became the most reliable source of updated information. Moreover, Narongsak decided to disclose the facts at the right times so the mass media trusted him, and he knew how to maintain media discipline, as a result, he could control the situation. Evidence supports the idea of full disclosure which Kaufmann, Kesner and Hazen (1994) noted that effective communication might reduce the chance of escalation, limit interference with normal operations and contain damage to the organization's reputation and bottom line.

Lessons learnt from the Rescue of the Wild Boar Soccer Team Members Mission did not end when the Rescue Operation Committee Center brought the young boys and their coach out of the cave safely. There were many lessons learnt from this case study. First, people should be made aware of the dangers of visiting caves even though they may be familiar with them, and Forest Park authorities in Thailand are alert to initiate prevention mechanisms to avoid anyone else being trapped in the future. Second, cave diving may be the new technical terms for Thai people, but evidence of this case revealed that it is an essential skill for cave rescuers. Without expert cave divers from around the world, it would have been extremely difficult to complete the mission.

The Royal Thai Navy Seals learnt from this mission that normal diving skills are not enough when they have to dive in narrow caves with murky water. It is essential for them to have cave

diving technique training. Third, leadership is very important during a crisis. Good leadership not only knows how to coordinate crisis stakeholders smoothly but also dares to be decisive. The death of Saman Gunan reminded the leader to avoid any further mistakes recurring. Although carrying the young boys and their coach out of the cave may be risky, the leader must make the right decisions of how to do it safely, and when the rescue operation should be mounted. Fourth, crisis communication is an essential tool to control situations and the leader must know when and how to disclose facts to the public. Evidence of this case showed that maintaining mass media discipline was an important part of completing the mission. Finally, good cooperation and help regardless of race, nationality, and religion could bring all experts from around the world to work together and be able to transform an impossible mission to become a possible one.

This study illustrates the framework of Integrated Crisis Management by the Rescued Wild Boar Soccer Team members in the Tham Luang Cave case study analysis. It provides lessons learnt for crisis management process in Thai contexts where knowledge is lacking. However, there are limitations for this study which researchers should discuss and suggestions for future research are given. With limited resources, this study presents the single case study analysis based on cross sectional data. Data about the impact after the young boys and their coach returned to their normal lives have not been collected. Longitudinal data may help to fill up the case complement. Moreover, this study focused on the crisis management process based on the framework of Integrated Crisis Management. Other factors outside the framework of Integrated Crisis Management may influence the success of the rescue operation mission. Therefore, it is essential for future research to be investigated. This case study is in Thai contexts which may be different from similar cases in other contexts, hence, Cross-case Comparison Analysis between similar cases in different contexts may contribute to crisis management knowledge which is still limited.

## References

- Babbie, E. (1986). *The Practice of Social Research (4<sup>th</sup> Ed.)*. Belmont, CA: Wadsworth Publishing.
- Coombs, W.T. (2012). *Ongoing Crisis Communication: Planning, Managing, and Responding (3<sup>rd</sup> Ed.)*. Thousand Oaks, CA: SAGE.
- Dutton, J.E., and Duncan, R.B. (1987). The Creation of Momentum for Change through the Process of Strategic Issue Diagnosis. *Strategic Management Journal*, 8(3), 279-95.
- January 20, 2019. Thai Cave Rescue-Full Documentary HD. *ADVEXON TV*. Available from <https://www.youtube.com/watch?v=a4GqD0B-Kjl> (Accessed 5th April 2019).
- Kaufmann, J.B., Kesner, I.F., and Hazen, T.L. (1994). The Myth of Full Disclosure: A look at organizational communications during crises. *Business Horizons*, 37(4), 29-39.
- Krathwohl, D.V. (1998). *Methods of educational and social science research: An integrated approach (2<sup>nd</sup> Ed.)*. New York: Addison Wesley Longman.

- Mahon, J.F., and Cochran, P.L. (1991). Fire alarms and siren songs: The role of issues management in the prevention of, and response to, organizational crises. *Industrial Crisis Quarterly*, 5(2), 155-176.
- Pauchant, T.C., and Mitroff, I.I. (1992). *Transforming the Crisis-prone Organization: Preventing Individual, Organizational, and Environmental Tragedies*. San-Francisco: Jossey-Bass.
- Pearson, C. M. and Clair, J.A. (1998). Reframing Crisis Management. *Academy of Management Review*, 23(1), 59-76.
- Pipitkul, W. (Director). (January 14, 2019). Soon [Disappear]. In Lertthanaphon, T., Plarachun, N., Chaiprasert, W. (Producers), *Sarakhadee Tham Luang: Soon-Har-Jer-Rord-Fuen Torn 1 [Tham Luang Cave Documentary TV Program: Disappear-Find-Meet-Survive-Recover Episode 1]*. Bangkok: Thai PBS.
- Pipitkul, W. (Director). (January 15, 2019). Har [Find]. In Lertthanaphon, T., Plarachun, N., Chaiprasert, W. (Producers), *Sarakhadee Tham Luang: Soon-Har-Jer-Rord-Fuen Torn 2 [Tham Luang Cave Documentary TV Program: Disappear-Find-Meet-Survive-Recover Episode 2]*. Bangkok: Thai PBS.
- Pipitkul, W. (Director). (January 16, 2019). Jer [Meet]. In Lertthanaphon, T., Plarachun, N., Chaiprasert, W. (Producers), *Sarakhadee Tham Luang: Soon-Har-Jer-Rord-Fuen Torn 3 [Tham Luang Cave Documentary TV Program: Disappear-Find-Meet-Survive-Recover Episode 3]*. Bangkok: Thai PBS.
- Pipitkul, W. (Director). (January 17, 2019). Rord [Survive]. In Lertthanaphon, T., Plarachun, N., Chaiprasert, W. (Producers), *Sarakhadee Tham Luang: Soon-Har-Jer-Rord-Fuen Torn 4 [Tham Luang Cave Documentary TV Program: Disappear-Find-Meet-Survive-Recover Episode 4]*. Bangkok: Thai PBS.
- Pipitkul, W. (Director). (January 18, 2019). Fuen [Recover]. In Lertthanaphon, T., Plarachun, N., Chaiprasert, W. (Producers), *Sarakhadee Tham Luang: Soon-Har-Jer-Rord-Fuen Torn 5 [Tham Luang Cave Documentary TV Program: Disappear-Find-Meet-Survive-Recover Episode 5]*. Bangkok: Thai PBS.
- Preedaanathasuk, C. (2013). Change Crisis Viewpoints with Integrated Crisis Management Approach. *BEC Journal of Naresuan University*, 8(1), 27-38.
- Suwanapichon, R. (2018). *Thamluang Khunnam-Nangnorn: Thonkamnerd Phya Mangrai lae 13 Moopa Tidtham thiinii [Thamluang Khunnam-Nangnorn Cave: The Birth of King Mangrai and 13 Wild Boar Soccer Team members were trapped here]*. Bangkok: Baan Mongkol.
- Thod Botrian Parakit Chuai Cheevit 13 Moopa [Lesson Learned from Mission of Rescued 13 Wild Boar Soccer Team Members]. *National Geographic*, September 2018, 28-55.
- Tsui, A. S. (2004). Contributing to Global Management Knowledge: A Case for High Quality Indigenous Research. *Asia Pacific Journal of Management*, 21(4), 491-513.
- Yin, R.K. (1993). *Applications of Case Study Research*. Newbury Park, CA: Sage.
- Yin, R.K. (2003). *Case Study Research: Design and Methods (3<sup>rd</sup> Ed.)*. Thousand Oaks, CA: Sage.