

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

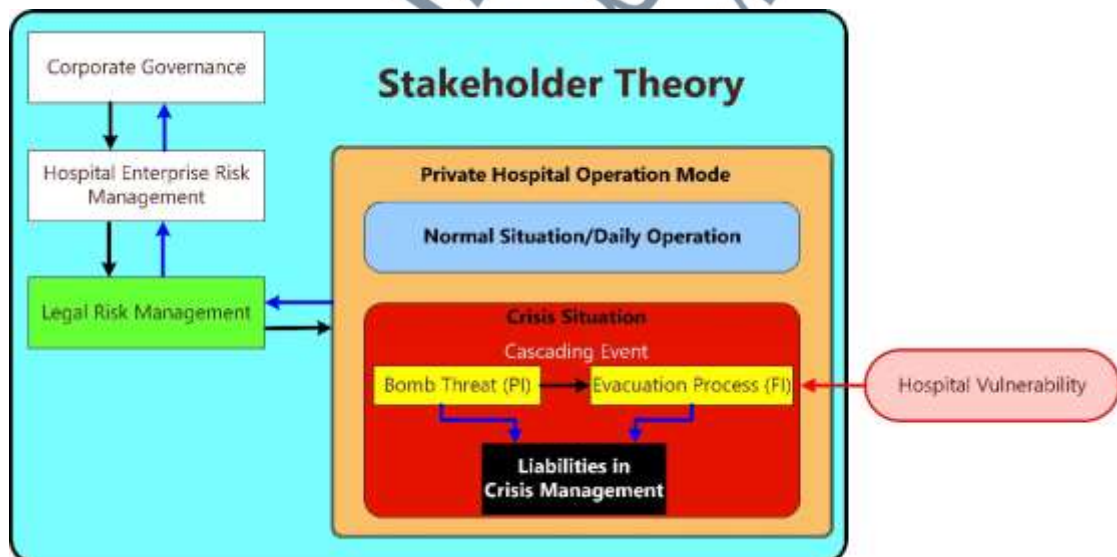
This chapter defines the scope of this research by reviewing risk management literature. It also identifies the ideal theoretical perspective to use for this research. The literature review process starts by looking at multiple sources, such as journals and books in this knowledge field, in order to discover the knowledge gap(s) in answering the research question. These sources provide the information of Legal Risk Management, Risk Management and Legal Principles. Besides, International Standards such as International Organization for Standardization (ISO), ISO31022:2020 - Guideline the managing legal risk also being referred. The bomb threat incident report from KPJ Healthcare Berhad, Hospital Incident Command System (HICS) and Health Service Executive (HSE) Integrated Risk Management Policy being explored in order to understand deeply the underlying meaning of legal risk management process. This chapter contains the following sub-categories such as Conceptual Framework, relationship between the theories and crisis management, Overview of Bomb Threat and Evacuation, LRM and liabilities in crisis management

#### **2.2 Conceptual Framework**

According to Ravitch and Riggan (2016), the conceptual framework acts as a roadmap and a foundation for research, acting as an ecosystem that integrates all study

components through a process that explains their connections, dispute, overlaps and the contexts influencing a research setting and the investigation of phenomena in that setting. Understanding conceptual frameworks, their components, how they interact, and how they are applied to direct qualitative research are important skill for anybody conducting qualitative research.

By reviewing the existing literature, Figure 2.1 represents a conceptual framework that describes how the stakeholder theory underpinning the Corporate Governance, Hospital Enterprise Risk Management, Legal Risk Management and Private Hospital Operation in normal and crisis situation. The stakeholder theory is a holistic approach in risk management as all parties involved in ensuring the organization objective is achieved. In terrorist attack or criminal activity, the hospital vulnerability can cause the crisis situation. Then, the crisis situation, which need to be solved using crisis management procedure, can trigger legal liabilities to the hospital management and government authorities.



**Figure 2.1:** The Conceptual Framework of LRM in Crisis Management

### 2.2.1 Corporate Governance and Hospital ERM

For Hospital Enterprise Risk Management, the study by M. S. Donaldson, Corrigan, and Kohn (2000) in the book titled *To err is human: building a safer health system* has discussed the aspect of security and quality culture in hospital where these has encourage the hospital to adopt risk management (RM) practices (Etges, de Souza, Kliemann Neto, & Felix, 2019). ERM or the integrated risk management perspective emerged in the 1990s and was formalized in 2004 by the Treadway Commission's Committee of Sponsoring Organizations (COSO) (Spikin, 2013). ERM is the comprehensive risk management for the organization. Furthermore, COSO emphasize the importance of senior management support for ERM implementation, as well as a focus on the risk analysis and control process. In the hospital setting, the Risk Management approach is required as the existence of substantial risks in health environments as the result of high employee numbers and the intense dependency between many activity areas in healthcare (Celona, Driver, & Hall, 2011). Besides, another factor are the complicated technological processes used in health systems and the numerous regulations and legislation that these operations must adhere to (Troyer, Brashear, & Green, 2005). The practice of Enterprise Risk Management (ERM), which promotes financial transparency and boosts the effectiveness of health organizations by creating a management strategy based on business objectives, enables value-focused management (Celona et al., 2011; Troyer et al., 2005). Even though it is still in its early stages, the adoption of ERM methods in the context of a hospital's corporate management has been characterized in the literature as a strategic approach to raising service quality (Bruney & Salter, 2014; Haney, Church, & Cockerill, 2013). The relationship between ERM, corporate governance, and hospital strategic management is regarded as the starting point for proactive management with a focus on performance

improvement in health organizations (Bruney & Salter, 2014; Celona et al., 2011). According to the assumptions of corporate governance, one task of ERM is to provide monitoring of strategic settings and thus contribute to an institution's economic sustainability, which is a fundamental aspect of value creation (Core, Holthausen, & Larcker, 1999). ERM must be able to track relevant decisions that are important to shareholders and investors in order to be used in a value-focused manner as part of executive management in conjunction with financial and service efficiency (Orvik, 2017). The ERM team should be placed in the organizational structure below the executive board in order to establish this setting of management autonomy that allows the generation of information for governance. It must be closely related to the other important divisions into which the hospital is divided, such the legal, financial, healthcare, and quality sectors, among others (Sandrick, 2010). With this structure, the hospital management consists the interconnections between the different hospital activities (Haney et al., 2013; Kicklighter & Miller, 2011). The arrows connecting the Hospital ERM and Corporate Governance are bidirectional, indicating that in establishing good risk management practice in Hospital, the Hospital ERM must provide the relevant information regarding risk in the hospital operation to the Board. The Board, after receiving the information, must take appropriate action and the decision made must be communicated to the Hospital ERM.

### **2.2.2 Hospital ERM and LRM**

Legal Risk Management (LRM) is iterative and should be integrated into all activities and operations of the organization (International Organization for Standardization, 2020). In ISO 31000 (Standardization, 2009), the standard that published by ISO provide a universal framework for managing all risks, including legal

risk. Plus, LRM also using the same process as risk management process (International Organization for Standardization, 2020). By referring to Moorhead and Vaughan (2015). LRM seeks to contribute to Corporate Governance in a number of ways. First, to facilitate and enabling Boards and others to understand and respond to the legal risks they encountered by defining and then providing high level information on those risks. Second, LRM is about to control risks by prevent them arise. The control also can be made by mitigating their impact through processes of assessment, decision-making and control. Therefore, the arrows connecting the Hospital ERM and LRM are bidirectional which indicates the ERM process should include Legal Risk and this process is continuous. This can be done by LRM section which identify the Legal Risk in the hospital Normal Situation/Daily Operation. LRM also can be used in identifying Legal Risk in Crisis situation. The information of legal risk in both situation will be communicated to the Hospital ERM. The Hospital ERM delivers information to the Board of Director. Any response, action or suggestion by the Board will be conveyed to Hospital ERM and then LRM section. LRM section will monitor the legal risk response and any matter arising will be communicated back to Hospital ERM.

As LRM can be utilize for Normal and Crisis situation in private hospital, the bidirectional arrows flow from LRM to Private Hospital. For Crisis situation, the source of legal risk can exist because of the terrorist attack or criminal activities; as the hospital is soft target by terrorist and criminal, which the unidirectional illustrates in the diagram. Dunlop (2004) also suggest the implementation of risk management approach by emergency personnel to identify legal issues during crisis. This including knowing and understanding the appropriate law is required to characterize the legal risk. Legal counsel might be sought in this case by emergency personnel. Next, identifying the

vulnerability of emergency personnel, which involves determining the areas in which they are unable to comply with the law or satisfy the necessary standard.

### **2.2.3 Hospital Vulnerability**

Hospital is soft target for terrorism & criminal activity (Ganor & Wernli, 2013; Glasberg et al., 2014). While schools, sporting arenas, amusement parks, and theatres are all widely known soft targets, hospitals have relatively unique vulnerabilities. Unlike other soft targets, hospital patients are commonly sick or disabled, unable to ambulate, and difficult to evacuate from a dangerous situation (Finucane, 2018). The highest level of violence is terrorism and all institutions within the critical infrastructure must be ready for the possibility of risk. Hospitals are easy targets where it is simple to spread panic and influence the public's opinion, which is what terrorists primarily aim to accomplish (Gabriella, 2020). Terrorist organizations realized that hospitals make an alluring primary or secondary target for attack. An attack on a hospital can divert security and response personnel away from the primary target of attack, as well as hinder the removal and treatment of the injured from the primary site of attack. For instance, a bomb planted inside a hospital or a suicide bomber who blows himself up at the entrance to a hospital will probably make it more difficult for emergency rescue teams to transport the injured from the scene of a terrorist attack to the emergency room. As a result, the primary attack deals more damage because valuable time is lost. The arrow connecting the hospital is soft target for terrorism and criminal activity to crisis management is unidirectional. It is because as the hospital vulnerable to the attack such as bombing or bomb threat, any terrorism or criminal activity will force the hospital to operate in crisis management mode.

For crisis situation in hospital, generally, there is a distinction between the terms disaster, crisis, and emergency (Al-Dahash, Thayaparan, & Kulatunga, 2016). These three concepts, however, are deeply connected, interdependent, and significantly overlap. In contemporary literature, the words disaster, crisis and emergency are often used interchangeably. It is crucial to make a practical distinction between risk, crisis, and disaster management when discussing the possible shocks and risks to society (Wilks & Moore, 2004). There is possibility for any risk to escalate out of control and develop into a crisis. In brief, disasters are described generally as unexpected, sudden events caused by natural, technology, or social factors that result in devastation, loss, or damage (D. Alexander, 2005; Iyer & Mastorakis, 2006; D. Parker, 1992; UNISDR, 2009). While, the term crisis is defined as an unusual situation that poses a serious risk to business and may immediately influence public policy because it attracts media attention and tarnishes public confidence (D. Alexander, 2005; Sawalha, Jraisat, & Al-Qudah, 2013; Shaluf & Said, 2003). For the last term, an emergency is described as a situation in which routine procedures are interrupted and extraordinary procedures are taken to prevent serious harm, save lives, and return the situation to routine operation (D. Alexander, 2003; WHO/EH, 2002). The common features for the terms disaster, crisis and emergency is all this situation occur in sudden nature and can cause damage (Al-Dahash et al., 2016). By examining the relationships between the terms, the researchers also conclude that both emergency and crisis and, if ignored or mismanaged, will result in a disaster. Thus, based on the terms, it can be stated that the combination of bomb threat and evacuation process in the private hospital is emergency situation that may escalates into crisis as it has affected the normal business operation. Instead of that, the emergency, crisis and disaster management also can establish liabilities to the hospital.

#### 2.2.4 Crisis in Hospital

In crisis situation in hospital, it is important to note that not all risks occur at the same time or with the same level of severity. For example, the threat may contribute to some personal risk for both staff and patients, while the evacuation process may contribute to other risk factors (Taaffe, Kohl, & Kimbler, 2005). This situation also known as cascading effect (Barten et al., 2022). In this condition, the initiating event is the Primary Incidence (PI). The event that prompted the decision to evacuate was regarded as the Final Incident (FI). Security and violence are two of the circumstances that can forced evacuation. Thus, the crisis management in the private hospital can consists of bomb threat and evacuation process. The unidirectional arrow from bomb threat and evacuation indicates the PI while the evacuation process represent FI. Both of FI and PI will impose legal risk in crisis management. Therefore, the unidirectional arrow flow from bomb threat and evacuation process to Liabilities in Crisis Management to indicate that both PI and FI contributes to legal risk which also known as liabilities.

Generally, there is relationship between risk management and crisis management (Shrivastava, Mitroff, Miller, & Miclani, 1988). When a business faces a threat to its survival, crisis management focuses on the detrimental impacts of the crisis and measures to recover. Crisis management is seen as a subset of risk management. It is a new academic branch based on the systematization of crisis countermeasures in the aftermath of large-scale industrial or environmental disasters in the 1980s such as Indian Bhopal Chemical Disaster in 1984. A crisis is defined as a major threat to organization's existence, such as an earthquake, explosion, eruption, terrorism, scandal, or war. The goal of crisis management is to minimize the impact of a crisis and to recover quickly.

The following are the distinctions between risk management and crisis management.

Potential risks are discovered before they become visible, risks are assessed and evaluated, and risk actions are performed on a daily basis in risk management. As a result, in the event of a crisis, risk management may include the production of manuals. Crisis management, on the other hand, is a set of operations designed to prevent the spread of losses that occur as a result of a crisis and to address issues that have already occurred.

### **2.2.5 Legal Liability in Crisis Management**

Legal liability in case of injuring other party is one of the most serious risks (Purpura, 2013). In the event of negligence, the offending party may face a court judgment. Businesses may be exposed to different types of liabilities. Examples of liability exposures include death or bodily injury. Besides, liabilities also exist in crisis management and it is founded in both the common law of torts and the codified law (Wilson & McCreight, 2012). A tort is basically a wrong act and the most typical tort element related to emergency management is negligence. For a negligence tort to exist and for legal liability to attach, there must be 4 elements. Duty, breach, cause, and damage are the elements. In terms of duty, each person has a general obligation to act in a reasonable manner at all times, taking into account the circumstances (Nicholson, 2009). Liability arises when a person or property is damaged as a result of an action or omission to act. Liability for a crisis situation could stem from: (1) The failure to fulfil a responsibility or adhere to a legal obligation; (2) Failure to follow through on a plan; (3) Failure to adequately train and supervise emergency management personnel; and (4) The duty being performed in an unreasonable manner. To prepare for crisis situation, LRM can be used to handle the legal risk and all the information can be conveyed to Hospital ERM.

### 2.2.6 The Stakeholder Theory

As seen in Figure, The Stakeholder Theory covers the areas of Corporate Governance, Hospital Enterprise Risk Management, Legal Risk Management and Private Hospital Operation in normal and crisis situation. The model/principle/theory that underlying all the area has been discussed before. It can be seen that all the areas are related to Stakeholder Theory. The Stanford Research Institute developed the stakeholder theory in 1963 (Jasinska, 2020). This theory focused on how organisations operated and believed that stakeholders were people or organisations who, without their support, an organisation could not operate. In 1984, Freeman determined that stakeholders were all individuals and groups within and around the organisation who had an impact on the organization's goals or who may influence the organization's ability to achieve its goals (Friedman & Miles, 2006).

It is important to understand that stakeholders are the entities or organisations that have influence over the organisation. Frichi, Jawab, and Boutahari (2019) has identified the categories of health system stakeholders identified at the international level as follows: (1) Government; (2) Political parties; (3) Health personnel and their organizations; (4) Patients and health service users; (5) Health insurance groups; (6) Non-governmental organizations and the non-profit sector; (7) United Nations agencies; (8) Health facilities; (9) Health industry and professional associations; (10) Health researchers; and (11) Shareholders.

The relationship between Stakeholder Theory and Corporate Governance as follows (Abu, 2021). According to the stakeholder theory, the governance process is carried out through coordination, participation, and dispute resolution between all parties. Stakeholder theory, which is used to measure success in corporate governance, supports a fair distribution of value among all parties in order to keep all stakeholders

engaged. The stakeholders' theory regards all stakeholders as residual risk bearers, and it requires all stakeholder groups to collaborate together before they can achieve the power and authority necessary to influence the achievement of a specific status in governance processes.

For the relationship between Stakeholder Theory and Corporate Governance in crisis management, Alpaslan, Green Jr, and Mitroff (2009) has proposed this finding where the stakeholder model may be the most fruitful corporate governance approach in the context of crises. When an organisation begins to make connections, develops coordination, and distributes correct information with its stakeholders, a favourable outcome in crisis management can be attained (Pearson & Clair, 1998). This strategy can produce great crisis management outcomes, including the early identification of warning signs, minimum downtime, efficient damage containment, and favorable effects on corporate reputation. The decision to involve a stakeholder in crisis preparedness and response should not be made entirely on the basis of that stakeholder's influence on shareholder value, according to the main concept of the stakeholder approach to crisis management.(T. Donaldson & Preston, 1995). The stakeholder model, for instance, demands that managers focus on a particular stakeholder to the extent that stakeholder is actually or potentially in risk of suffering harm or injury as a result of the organization's decisions and activities.

The approach of top to down and down to top approach offered by Stakeholder Theory in achieving the organization success has similarity in context of Corporate Governance, Hospital Enterprise Risk Management, Legal Risk Management and Private Hospital Operation in normal and crisis situation. Stakeholder Theory also can be used in any situation, normal or crisis. Without comprehensive engagement from external and internal stakeholder, the problems in the organization cannot be identified

clearly and being solved. This will jeopardized the organization to accomplish their target.

In this study, the legal risk regarding Bomb Threat (PI) and Evacuation Process (FI) will be the subject of the research. This is the liabilities in the crisis management. The approach of LRM as per ISO 31022 will be used as the research tool. The Stakeholder Theory, Corporate Governance, Hospital Enterprise Risk Management, Legal Risk Management and Private Hospital Operation in normal and crisis situation, will be used in selecting the respondent of the interview and the material/literature regarding crisis management guidelines, case law which cover legal judgment and previous study including journal. Besides, by referring to Frichi et al. (2019), in this study, the stakeholder group in Bomb Threat and can be identified as hospital administration, hospital employee, Government Authority, patient, neighboring hospital, contractor and visitor. These among the potential group that have potential risk by the decision of hospital management during crisis, as stated by (T. Donaldson & Preston, 1995).

### **2.3 Crisis Management Guidelines**

Standard operating procedures (SOP) provide emergency responders with established measures to manage anticipated situations during a crisis (Harwood & Porter, 2020). SOP have been used as a primary management tool for more than 150 years because they provide considerable advantages as a manual for employees who are expected to work independently in the field. SOP are used by government agencies to adapt to the operational environment and provide a list of suggested activities that are in line with official policy. By encouraging rote behavior, the SOP model aims to improve consistency in achieving mission objectives. According to sociologists Charles

Parker and Eric Stern, SOP are founded on previous experience and anticipation (C. F. Parker & Stern, 2002). Furthermore, personnel can rely on a SOP to provide appropriate instruction as long as the actual event follows the prediction. Among the SOPs used in crisis management are HICS and for KPJ Healthcare Bhd.

### **2.3.1 Hospital Incident Command System (HICS)**

In order to manage Crisis, Disaster and Emergency in the hospital, the California Emergency Medical Services Authority (EMSA) has published guidelines titled Hospital Incident Command System (HICS) (California Emergency Medical Services Authority 2014). Hospitals and healthcare organizations can use HICS, an incident management system based on the Incident Command System (ICS), to improve their emergency management planning, response, and recovery capabilities for both scheduled and unexpected incidents. HICS adheres to the same concepts as ICS and the National Incident Management System (NIMS) which has been widely used in United States of America. Thus, health care professionals, such as doctors, nurses, and administrators who deal with patients at a time of crisis, will continue to benefit the most from HICS. Moreover, HICS is a very useful system in that it not only provides an organizational structure for incident management, but it also leads the process of designing, creating, and adjusting that structure. Every day, hospitals in the United States and around the world have to deal with a wide range of operational and monetary issues. Therefore, hospitals dedicate valuable resources to ensure suitable emergency plans are in place and personnel are sufficiently prepared to respond in order to manage emergencies, whether the emergencies are external (for example, earthquakes, fires, or floods) or internal (for example, utility failure, child abduction, or workplace violence). This is need to be done so that the hospitals can manage emergencies effectively.

Furthermore, HICS is a system that is versatile, scalable, and adaptable, and it can be utilized by all hospitals regardless of their size, location, patient acuity, patient volume, or the type of risk. Each crisis in the hospital necessitates a different size and configuration of HICS. By utilizing HICS, hospitals employ a nationally recognized approach that fosters effective incident management inside the institution. HICS also provides Incident Planning Guide for Explosive Incident and Evacuation, Shelter-in-Place, & Hospital Abandonment. This Incident Planning Guide can be modified to meet the needs of hospitals according to their crisis management setting. These Incident Planning Guides can be found in Appendix 1

### **2.3.2 KPJ DEMP**

KPJ Healthcare Berhad (KPJ) has 28 private hospitals in Malaysia with 3,376 beds and 14,431 employees (KPJ, 2021a). 19 out of 28 hospitals has been accredited by Malaysian Society for Quality in Health (MSQH) 4 Accredited by Joint Commission International (JCI).

Therefore, with 28 hospitals, KPJ has develop Disaster and Emergency Management Plan (DEMP) in emergency situation framework to manage potential hazards (KPJ, 2021b). Therefore, with 28 hospitals, KPJ has develop Disaster and Emergency Management Plan (DEMP) in emergency situation framework to manage potential hazards. By implementing DEMP at all KPJ hospitals, KPJ healthcare facilities are made ready to handle both internal and external crises. Aside from common management training and exercises held throughout the year, the plan includes annual disaster drills for each hospital. These drills not only examine the DEMP's execution level and personnel compliance, but also act as disaster preparation refresher

courses for KPJ employees. For DEMP, among the color code use are Code Red (Fire Incident) and Code Black (bomb threat incident).

The intricate stakeholder ecosystem at KPJ serves as the foundation for collaborative relationships with stakeholder groups (KPJ, 2021a). During the crisis in 2021, stakeholder management efforts were primarily focused on KPJ COVID-19 mitigation and treatment measures. The stakeholders in the KPJ ecosystem are as follows: (1) Patients; (2) Employees; (3) Consultants; (4) Investors and Shareholders, (5) Government and Regulators; (6) Business Partners; (7) Accreditation Bodies and Industry Association; (8) Suppliers and Vendors; and (9) Local Communities

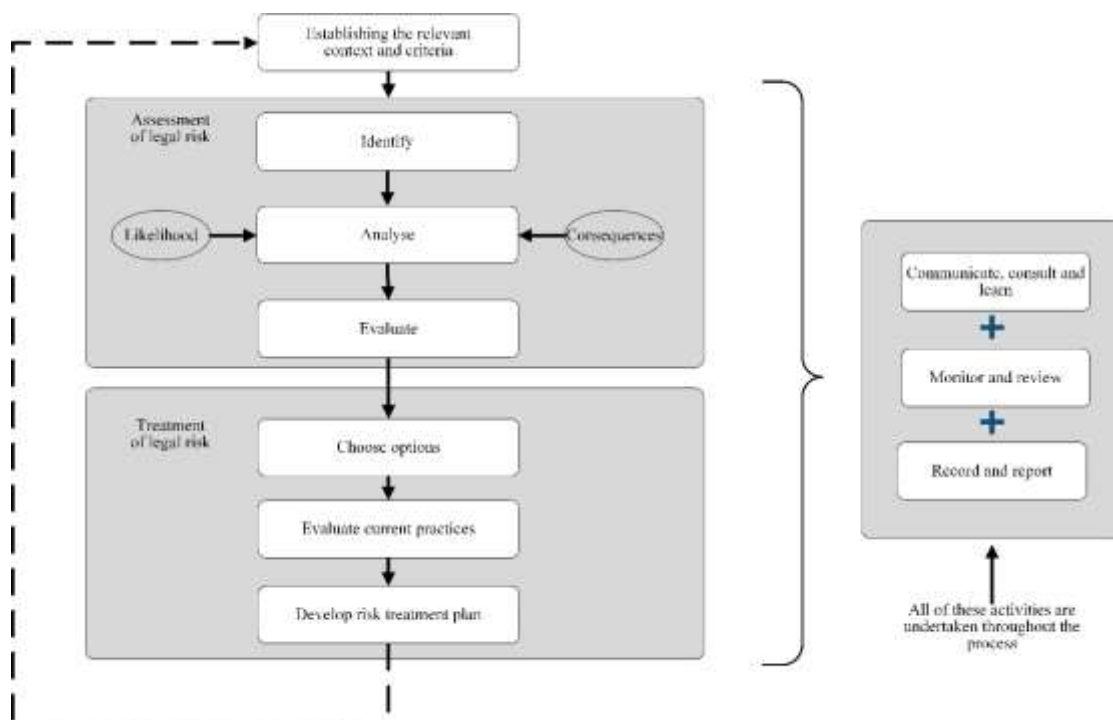
#### **2.4 Legal Risk Management**

According to (Moorhead & Vaughan, 2015), legal risk is critical legal repercussion that originated from actions attributable to the organization activity. The impact of legal risks can extend to risk of being prosecuted and legal claim for compensation of loss to the aggrieved party. Legal risk is risks associated with a faulty transaction, a claim being brought (including a defense to a claim or a counterclaim), or some other legal events resulting in a liability or other loss, or a failure to take adequate actions to meet legal or regulatory obligations or safeguard assets (for example, intellectual property) (Ripley, 2020). Whereas, the legal risk defined by The International Organization for Standardization (2020) in the guideline for the management of legal risk (ISO 31022:2020), describe legal risk as can be arise from contractual matters, regulatory, non-contractual rights plus legal obligations. For Non-contractual obligations, the organization's actions and decisions can result in illegal behaviour or a breach of a non-legislative duty of care (or civil duty) to third parties.

Tortious duty is another legal risk. As a result, legal risks can be attributed to

organisational behaviour and decision-making. The legal risk is illegal behaviour or a failure to fulfil a non-legislative duty of care (or civil duty) to third parties, which includes tortious duty.

The ISO has issued ISO 31022:2020 (International Organization for Standardization, 2020), standards for legal risk management in May 2020, which is latest development of LRM . ISO 31022 is intended to provide guidance on activities that assist organizations in assessing and managing legal risk efficiently and economically in order to meet the expectations of a diverse range of stakeholders. While ISO 31000:2018 (Risk Management-Guidelines) establishes broad concepts and guidelines for all risk categories to which organizations are subject, ISO 31022 focuses on a specific risk category in the legal field. The ISO 31022 standard, which is based on the ISO 31000 principles, modifies risk management and processes to meet the requirements of legal risk management. ISO 31022 is structured identically to ISO 31000. Besides, ISO 31022 can be tailored to fit any organization and its context. Also, this standard establishes a uniform approach to legal risk management for all sector and industry. Figure 2.5 explain the process of LRM based on this standard.



Source : (International Organization for Standardization, 2020)

**Figure 2.2:** Process for management of legal risk as per ISO 31022:2020

For legal risk research in hospital, in Korea, there is a study relating to legal risk in hospital (Park et al., 2016). Over the years, individuals obtaining medical treatment have more opportunities in obtaining comprehensive medical expertise or legal advice. Within the diverse departments, medical professionals and specialists from different areas, including finance and revenue, human resources administration, construction of healthcare center, community care improvement and customer loyalty and support, hospitals are dedicated to quality and profitability based. From this research, legal risks were defined as all job activities in a healthcare system and a lot of efforts were taken to reduce these legal risks in the overall operation of hospitals. There are three main categories of legal risks in hospitals: the management of the safety of patients, medical negligence and illegal conduct of the hospital workers. In this study, 55 resolved cases of the 64 federal medical disputes were examined and analyzed for this analysis. From

January 2000 to April 2013, the analysis was conducted from patient reports, complaints, briefs and the Medical Dispute Mediation Committee records at the Pusan National University Hospital (PNUH). For each of the closed cases, the grounds for the litigation were presented such as causes of death, the decision of the court at the trial phase, the time of the alleged error and the complaint procedure, the duration of the trial, the actual determination and the number of compensatory damages received and determined. This study protocol has been approved by the institutional review board of PNUH. As the analysis used de-identified data that was publicly available, the requirement to seek informed consent has been waived by the board. The researchers have found that the overall quality of services in healthcare facilities across Korea should be upgraded and that a proactive approach to legal risks at the healthcare facilities level, including medical care systems, could minimize losses arising from a medical dispute in hospitals. In addition, inefficient practices and risk factors should be eliminated in management services. The study's conclusions provide a thorough starting point for identifying and minimising medical malpractice, creating incident response plans, creating an incident report framework, and taking enforcement measures. These were used to minimize the potential legal disputes in the healthcare setting. However, the study is limited to legal risks in the normal operation of the hospital. The study did not consider legal risks in the crisis situation such as bomb threat and evacuation process.

#### **2.4.1 Legal Risk Identification**

The aim of identifying legal risk is to identify, recognize, and explain the legal risks that may enable or prohibit an organization in accomplishing its objectives (International Organization for Standardization, 2020). Based on ISO 31022, the

identification process of legal will involve 2 components. The first component is the tool or techniques to identify the legal risk. The second component will be the source of information of the legal risk.

Document analysis is the one of the techniques to identify the legal risk. According to Bowen (2009), a methodical approach to reading through or assessing papers is document analysis. It can be applied to give background, raise questions, improve other types of research data, monitor changes over time, and validate data from other sources. Dalglish, Khalid, and McMahon (2020) introduced READ approach in document analysis technique. The READ technique is a systematic method for document analysis in health policy research. This technique encompasses of: (1) Ready the materials/document, (2) Extract the data, (3) Analyse the data and (4) Distil the findings. The study has applied the READ document analysis approaches via case studies method. The approach has increased theoretical and empirical understanding of Pakistan and Nigeria health policy issues. These case studies in Pakistan and Nigeria demonstrate how important it is to conduct a thorough document analysis in order to comprehend the processes, discourse, and content of policies., in ways that are either not possible using other techniques. The READ approach also enhances other risk identification techniques such as interviews.

Another techniques to identify the legal risk is interview. The purpose of one-on-one structured or semi-structured interactions are to obtain viewpoints (Commission, 2019). This technique also can be used for data collection. In this technique, the individual respondents are asked a series of pre-prepared questions during a structured interview. The advantages of structured interviews are that they give people time to reflect about a topic and allow for the inclusion of a greater number of stakeholders than a face-to-face group. Since of its advantage, the interview technique has been employed

in an Indonesian research on Covid-19 outbreaks by Pramana, Hastjarjo, and Sudarmo (2021), where the objective of this study was to explore how doctor-patient communication has changed and how information can help doctors avoid infection.

For tool to identify the legal risk, ISO 31022 introduces the Legal Risk Identification Matrix (LRIM) for classifying identified legal risks and recording various types of events by business areas/units/activities. The LRIM connects legal risks with the operations of the company. LRIM categorizes legal risks into six categories. The categories are: Category 1 (Unpredictability); Category 2 (Noncompliance with applicable laws); Category 3 (Breach of contract); Category 4 (Infringement of rights); Category 5 (Omission in exercising rights); and Category 6 (Improper choice). LRIM also involve the activities of agents, employees or contractors or individuals who work for or with the company. Table 1 shows the example of LRIM.

**Table 2.1:** An example of an LRIM

Parameter	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6
Legal risk typologies	Unpredictability	Non-compliance with applicable laws	Breach of contract	Infringement of rights	Omission in exercising rights	Improper choice
Business activity 1						
Business activity 2						
Business activity 3, etc.						

Source : (International Organization for Standardization, 2020)

Another tool to identify the legal risk is Legal Risk Register (International Organization for Standardization, 2020) . A Legal Risk Register (LRR) is a compilation of prospective legal risk event occurrences along with the laws, possible outcomes, and implications that correlate to such occurrences. It provides the user with assistance in

identifying legal risks in relation to the applicable laws. Table 2.2 shows the example of LRR.

**Table 2.2:** An example of LRR

Operational activities	Legal risk category	Legal risk event identified (dates, occurrences)	Applicable relevant laws	Legal consequences	Past cases	Opinion of internal/in-house legal teams	Opinion of external legal advisor	Recommended solution/ action plan

Source : (International Organization for Standardization, 2020)

The second component of identifying legal risk is through the source of information of the legal risk (International Organization for Standardization, 2020). The organization should identify legal risks and their implications for its operations, products, services, and reputation in a systematic way. Legal risks encompass responsibilities and accountability for managing legal risk upon its occurrence. They could consist of penalties imposed by the government, restitution paid to third parties, administrative obligations, tort liabilities, and criminal liabilities. Legal risks fall under the application of specific laws, case law, and common law. Hence, several areas of laws can be used as the source of information of the legal risks. The source of information of the legal risk for bomb threat and evacuation can cover two branches of law as follows: (1) Evidence Law (Civil Procedure); (2) Tort Law; and (3) Insurance/Takaful Law

For Evidence Law (Civil Procedure), in civil proceedings in Malaysia, the Evidence Act 1950 and Rules of Court 2012 are the most important statute to be referred in terms of evidence. Both of the statutes contain the mechanism of tendering the evidence for civil proceedings. The Evidence Act 1950 is one of the country's significant acts of the procedure. The decision of every civil or criminal case being tried is based on the application of evidence law. Evidence means and includes all

allegations, whether oral or written, which the court permits or needs witnesses to bring before it, concerning factual matters under investigation (Backer, 2018) . The primary purpose of the Evidence Act is to identify the relevance and specify what relevant information can be derived from which evidence. Secondly, it states what sort of proof of those specific facts is to be given. Thirdly, it specifies who is to provide proof and in what manner. There are two stages in a civil trial which are the determination of legal issues and the facts of the case (Talib, 2016). Both these issues will be determined by the judge and the judge will conclude, from the evidence tendered in court, whether there is proof that negligence has occurred.

In Tort Law, word tort comes from the Latin word, *tortius*, meaning twisted or wrung. These two words mean false (Talib, 2016). A tort can consist of either misconduct or omission not allowed by law. A tort action has the effect of intruding on the wellbeing of another, whether this interference results in real harm or not, entitles the other party to a redress from which he or she can eventually be returned to their former position. For the purposes of domestic law, the only branch of Malaysian tort law that has been codified is the law of defamation, which is found in the Defamation Act 1957. Apart from that, the law of tort in Malaysia covers the area such as Occupier's Liability, Medical Confidentiality, Medical Negligence and Employer's Liability.

For Insurance and Takaful Law, In Malaysia, the insurance law is regulated by the Financial Services Act 2013 (FSA) and Islamic (Takaful) insurance is governed by the Islamic Financial Services Act 2013 (IFSA). Takaful contract assimilates with the conventional insurance principles in its practises that embody the concept of fairness in dealings; as explained by Syariah's based on the established legal maxims of the fiqh (Islamic jurisprudence) concept that all things are allowed unless mandated otherwise (Malaysia & Association, 2018). These insurance concepts are applicable in the context

of Takaful as long as they do not contradict any Syariah principle (Ismail, 2015). Insurance contracts are governed by both fundamental principles of contract law and specific rules inherent in insurance contracts. These distinct concepts called as insurance principles are comprised of the following legal doctrines. Among this doctrines are Principle of Insurable Interest and Principle of Utmost Good Faith (Edward et al., 2017). For Takaful, the Principle of Insurable Interest in conventional insurance is similar with Permissible Takaful Interest (PTI). Among the type of takaful contracts are Family Takaful and General Takaful. Family Takaful is a Takaful plan that offers both protection and long-term savings to its participants. Savings, education, mortgage, investment-linked, health, and annuity are some of the most frequent types of plans that fall under individual Family Takaful. Whereas, General Takaful industry is divided into two categories: motor and non-motor. All types of land vehicles are covered under Motor Takaful. It then goes on to cover Fire Takaful, Engineering Takaful, Miscellaneous Takaful (including Liability Takaful), and other non-motor Takaful. Liability Takaful, on the other hand, includes Employer's Liability Takaful and Public Liability Takaful.

#### **2.4.2 Legal Risk Analysis**

The objective of risk analysis is to comprehend the nature and characteristics of risk, including its magnitude (Lee, 2021). In addition to determine the potential outcomes (consequences) and likelihood of a risk's occurrence, risk analysis identifies the possible outcomes (probability). The level of risk is established by combining the consequence and likelihood of occurrence. The analysis of risk should identify the factor that affect the outcomes and likelihood of risk occurrence. There are quantitative, semi-quantitative, and qualitative methods for analyzing risk. It can be said that risk

analysis contributed significantly to risk evaluation (International Organization for Standardization, 2018), decisions on whether and how risk should be treated, and the most appropriate risk treatment strategy and methods.

In relation to healthcare risk management, Health Service Executive (HSE) from Republic of Ireland has published a guidelines titled HSE Integrated Risk Management Policy - Incorporating an overview of the Risk Management process (Health Service Executive, 2017). This policy and procedure related to risk management is applicable to all HSE and HSE-funded entities, including the Hospital Group and Community Health Organization (CHO), the National Ambulance Service (NAS), Clinical Directorate and Care Service Levels in the Republic of Ireland. The HSE is subject to both strategic and operational risks (clinical/care delivery and business risk), which are managed in an integrated manner. It is not meant to be used in the assessment of risk concerning care and treatment relating to specific Service Users, particularly in situations when other clinical risk assessment methodologies are available. All HSE-funded and HSE-managed services must comply with the policy's requirements, and any local risk policies and procedures must be in line with them. The application of HSE guideline has been carried out by a research titled Older adults and “scams”: evidence from the Mass Observation Archive (Bailey, Taylor, Kingston, & Watts, 2021). In this study, the authors recommend developing and evaluating an intervention based on a common approach used in HSE risk assessments for health and safety (Health Services Executive, 2017).

For legal risk analysis, it takes two steps to evaluate the likelihood of events (International Organization for Standardization, 2020). The first step is to determine if a risk event has a specific degree of probability of occurring. In the second step, it is decided whether or not the occurrence of such a risk event would have any legal

consequences and, thus, whether or not it might be considered a legal risk. A scale is used to assess the likelihood of the legal risk.

According to (Health Services Executive, 2017), the likelihood of a specific risk occurring is determined by the effectiveness of existing measures. The better the controls, the less likely the risk will arise. Besides, the range and adequacy of controls in place should be considered when determining the likelihood. The likelihood of the risk should be scored using the HSE's risk assessment tool's likelihood table. Likelihood is measured by assigning a number from 1 to 5, with 1 denoting a remote possibility and 5 denoting an almost definite occurrence. Table 2.6 shows the scale of likelihood from 1 to 5.

**Table 2.3:** The scale of likelihood from 1 to 5

Rare/Remote (1)		Unlikely (2)		Possible (3)		Likely (4)		Almost Certain (5)	
Actual Frequency	Probability	Actual Frequency	Probability	Actual Frequency	Probability	Actual Frequency	Probability	Actual Frequency	Probability
Occurs every 5 years or more	1%	Occurs every 2-5 years	10%	Occurs every 1-2 years	50%	Bi-monthly	75%	At least monthly	99%

Source : (Health Services Executive, 2017)

For consequences, the events that are associated with legal risk will have impact for the organization in the following areas: finances, regulations, reputation, geography, and even within the organization itself (International Organization for Standardization, 2020). In Integrated Risk Management Policy, the HSE has listed harm to people as one of the risk impact categories that can be controlled (Health Services Executive, 2017). Descriptors ranging from minor to extreme harm have been assigned to each of the risk impact areas. Consideration of the controls that already in place for the key impact area

can be made. Then, the descriptor that best depicts the risk's impact if it were to occur can be chosen.

**Table 2.4:** The scale of Impact/Consequences ranging from 1 to 5

Impact	Score	Description
Negligible	1	Adverse event leading to minor injury not requiring first aid. No impaired Psychosocial functioning.
Minor	2	Minor injury or illness, first aid treatment required. <3 days absence. <3 days extended hospital stay. Impaired psychosocial functioning greater than 3 days less than one month.
Moderate	3	Significant injury requiring medical treatment e.g. Fracture and/or counselling. Agency reportable, e.g. HSA, Gardai (violent and aggressive acts). >3 Days absence. 3-8 Days extended hospital Stay. Impaired psychosocial functioning greater than one month less than six months
Major	4	Major injuries/long term incapacity or disability (loss of limb) requiring medical treatment and/or counselling. Impaired psychosocial functioning greater than six months.
Extreme	5	Incident leading to death or major permanent incapacity. Event which impacts on large number of service users or member of the public. Permanent psychosocial functioning incapacity.

Source : (Health Services Executive, 2017)

### 2.4.3 Legal Risk Evaluation

An evaluation of legal risk can be made by comparing the findings of numerous analyses with its risk criteria (International Organization for Standardization, 2020). Following that, the company will be able to prioritize the legal risks. Using this approach, decision-makers can explore a variety of legal risk management options. Moreover, the objective of a risk evaluation is to decide, based on the risk rating, if the risk needs to be managed further, which is called the risk treatment (Health Services Executive, 2017). According to Health Services Executive (2017), risk is classified into two categories: impact and likelihood. The risk's impact (consequence) defines the severity if the circumstance occurs, and the risk's likelihood (probability) denotes the likelihood of the risk occurring. Then, the risk-rating procedure starts by assigning a single score to each of these dimensions. The Risk Rating is the sum of these two scores: Likelihood x Impact = Risk Rating.

**Table 2.5:** Risk Matrix

	Negligible (1)	Minor (2)	Moderate (3)	Major (4)	Extreme (5)
Almost Certain (5)	5	10	15	20	25
Likely (4)	4	8	12	16	20
Possible (3)	3	6	9	12	15
Unlikely (2)	2	4	6	8	10
Rare/Remote (1)	1	2	3	4	5

Source :(Health Services Executive, 2017)

Table 2.5 shows the Risk Matrix. After calculating the scores for both the likelihood of an event occurring and its impact or consequences, those values should be

plotted on the risk matrix., for instance, the risk rating will be a Red 15 if a risk has been given a likelihood score of 3 (Possible) and an effect score of 5 (extreme).

**Table 2.6: Risk Rating and Description**

Risk Rating	Description
Red (High Risk)	Risks rating red (high risk) are intolerable that is they cannot be accepted and require significant management focus to mitigate them Risk action (treatment) plans should be developed; The actions required assigned to action owners and their completion should be monitored by the relevant Management Team
Amber (medium risk)	Risks rating amber (medium risk) are trickier, in that on the one hand they are not intolerable (high risk) or acceptable (low risk) Whilst all reasonable efforts should be taken to reduce the risk to a low rating this may not be possible given constraints within the overall system or indeed by applying the additional effort required to mitigate it further other opportunities will be lost Such risks require consideration by the Management Team and it may be that a decision is taken to accept the risk but keep it under review (monitor) with an option to open it for further management in the future
Green (Low Risk)	Risks rating as green (low risk) are acceptable in that the additional effort required to reduce the risk further may be disproportional to the level of inherent risk and management efforts and resources may be better placed elsewhere Alternatively the Management Team may consider not to accept it but rather that some additional action is indicated and justified

Source : (Health Services Executive, 2017)

Table 2.6 shows the risk rating and description which is related to Table 2.5. When an organization ranks its assessed risks, the numerical value linked to the rating is critical. This information can be helpful for making decisions about which risks should receive main attention from management.

#### 2.4.4 Legal Risk Treatment

Risk evaluation is required for the development of a risk treatment plan and allows the organization to make the appropriate decisions about legal risk treatment options (International Organization for Standardization, 2020). Legal risk treatment refers to an organization's legal risk management strategies. For each prioritized risk, a risk treatment strategy should include a variety of treatment options, including legal

remedies as well as financial, operational, and reputational remedies. When selecting an appropriate treatment for the management of legal risk, it is advisable to take into account the following factors: the availability and allocation of the resources necessary to manage the risk, as well as a legal assessment including the comprehensiveness of the applicable laws, contractual commitments and contractual risk limitation (International Organization for Standardization, 2020). The legal risk treatment should also incorporate legal opinions and the extent to which the legal risk can be transferred, delegated, or insured against under the law. From the literature, Thompson and Hopkin (2022) has suggest 4T's for risk treatment. 4T's mean Risk Tolerate, Treat, Transfer and Terminate. The brief description of the 4T's as in Table 2.7

**Table 2.7:** Brief Description of 4T's

1	Tolerate Accept/retain	The exposure may be tolerable without any further action being taken. Even if it is not tolerable, the ability to do anything about some risks may be limited, or the cost of taking any action may be disproportionate to the potential benefit gained.
2	Treat Control/reduce	By far the greater number of risks will be addressed in this way. The purpose of treatment is that, whilst continuing within the organization with the activity giving rise to the risk, action (control) is taken to constrain the risk to an acceptable level.
3	Transfer Insurance/contract	For some risks the best response may be to transfer them. This might be done by conventional insurance, or it might be done by paying a third party to take the risk in another way. This option is particularly good for mitigating financial risks or risks to assets.
4	Terminate Avoid/eliminate	Some risks will only be treatable, or containable to acceptable levels, by terminating the activity. It should be noted that the option of termination of activities may be severely limited in government when compared to the private sector.

Source : (Thompson & Hopkin, 2022)

## 2.5 Liabilities in Crisis Management

Kanarev (2001) has explored the area of some of the legal liabilities issues associated with planning, crisis decision-making and evacuation in emergency response.

For Operational Legal Liabilities in Planning, in a legal sense, budgets, standing orders, standing operating procedures, guidelines, and manuals are all considered to be part of the planning process and emergency management plans. A distinction between operational and policy decisions has been made by the courts by referring to the case of *Anns v Merton London Borough Council [1978] AC 728* and *Council of the Shire of Sutherland v Heyman [1985] HCA 41*. This is due to the fact that policy issues typically do not fall under a duty of care since they are governed by financial, economic, social, or political restrictions. However, policy decisions lack the detail of what measures should be taken in specific situations; where operational personnel is responsible for making those decisions (Taylor, 1998). Operations decisions are subject to a duty of care. Courts have the authority to examine the practical application of policy decisions. It implies that negligence claims can be brought against both emergency management personnel and their employer. While the emergency services can invoke the defence of necessity, there is no defence based on merely carrying out the emergency management plan based on the court judgement as per case of *Gillick v West Norfolk and Wisbech [1985] 3 All ER 402*.

For Operational Legal Liabilities in Crisis Decision-Making, making decisions in an emergency involves crisis decisions. Three arguments were made by Rosenthal (1989) as to why crisis decision-making differs significantly from ordinary decision-making. First, a stressful environment is produced by crises. Second, there are timelines that decision-makers must meet. Third, there is the pressure that the decision-making

process will lead to a successful outcome, which comes from top management, the government, and the general public. Because operational decisions are crisis decisions and thus subject to judicial review by the court, it is necessary to understand how the law analyzes emergency management personnel's actions during an emergency. The court would consider three factors, as proposed by Kanarev (2001). First, consider the outcomes of the decision-maker's actions. Second, contrast the decision-making process with what a reasonable decision-maker with the same level of experience would have done in the same situation. Third, evaluate the consequences in light of current community norms for what an operational emergency manager should be expected to do.

For Operational Legal Liabilities in Evacuation, Kanarev (2001) found that an evacuation contains all the elements that draw attention to the emergency services' legal obligations: the utilization of power, a duty of care and working in a situation that requires quick decisions. A member of the public who may have been affected by operational decision could sue emergency services employees for negligence during the evacuation procedure. At every stage of an evacuation, a number of problems arise. A duty of care may be assumed by the emergency services professionals involved in the evacuation, shelter, and return phases. Additionally, it implies that every step in the evacuation procedure could lead to a negligence claim.

In this study, Kanarev (2001) concluded that although there is a high degree of commonality of emergency management law in Australia, the matter of how the exercise of those powers is undertaken and to what extent that exercise conflicts with civil rights remains an unresolved issue.

### 2.5.1 Overview Brief Bomb Threat and Evacuation

A bomb threat is a communication to anyone stating that a bomb or other harmful device has been or will be placed (Sapp, Huff, Kelm, & Tunkel, 2001). In addition, bomb threat is a threat that a bomb is present or that the target will be destroyed by a bomb (Newman, 2011). This is a simple crime to carry out, as the offender usually sends threats to the target while remaining hidden. Within the literature, there are studies on bomb threat and its impact. (Barrera, 2017) investigates bomb threats in Philippines. The author concluded that the bomb threat targets are not always the result of security lapses, rather it is of criminals' preferences.

Bomb threat generally require evacuation process. Therefore, if a bomb threat incident takes place in a hospital, proper evacuation process must be made. A good overview of earlier work in hospital evacuation process has been carry on by Barrera (2017). This study used risk and vulnerability analysis at two county hospitals in conjunction with a systematic search of the online internet literature. The two hospitals involve in this study are situated in the Region of Vastra Gotland, Sweden. The hospitals are Lidkoping hospital and Kungälv Hospital. The findings of this study stated that the decision to evacuate a hospital is difficult to make. Nevertheless, it should be made without hesitation if anything compromises the safety of patients. The decision to evacuate includes evacuation routes, transportation, and priorities. The infrastructure of the hospitals, such as backup systems and external space, and rooms, determines their risk profile and, the necessity for an evacuation process.

## **2.6 Potential Legal Risk in Crisis**

### **2.6.1 Evidence Gathering**

Dunlop (2004) has proposed that an organization should have a comprehensive crisis management plan in place to deal with a legal investigation into an emergency. The most crucial part of this strategy is to specify the situations that will set off the investigation and crisis management teams. The method used to gather evidence during an investigation is crucial.

For evidence collection, Mohamad (2019) has stated that the definition of computer evidence by referring to the court have 3 different terms which are computer printout, computer output and computer evidence. In the case of *PP v Ong Cheng Heong [1998] 6 MLJ 678*, the evidence was presented as computer printouts and the court refused to accept computer printouts as electronic evidence because the person who presented the printouts identified himself only as the supervisor of the vehicle registration department and made no claim of responsibility for the conduct of the activities for which the relevant computer was used. This court ruling portrayed the legal risk for not having proper evidence collection method.

### **2.6.2 Non-admissible of Evidence**

During evacuation, Huang, Lo, Yang, Gao, and Lo (2019) stated that a communication system and closed-circuit television (CCTV) system should be installed in the elevator lobby of each floor so that people can communicate with firefighters or others during the evacuation. The intelligent control system can be hired to integrate the CCTV system and elevator system. Then, the system will dispatch the elevator based on the results of the CCTV system's face recognition. This CCTV footage can be

admissible in the court if the evidence has follow the standard that has been decided by the court.

According to the general rule in the case of *Ahmad Najib bin Aris v PP [2009] 2 MLJ 613*, computer-generated evidence can be submitted either by producing a certificate attesting to the device's normal working operation and course of ordinary use, or alternatively through direct oral testimony attesting to the same criteria. If the evidence tendered failed to meet either criteria, the legal risk exist as the computer-generated evidence such as CCTV recordings inadmissible for the court trial (Radhakrishna, 2016). These rules can be seen further in the case of *PP v Lim Kang Wee [2015] 3 MLRH* where the High Court found that the CCTV recordings were inadmissible in the absence of either a certificate or oral evidence regarding the appropriate operation of the CCTV.

### **2.6.3 Employer's Liability**

Evacuation requires personnel to engage in non-routine duties (Taaffe et al., 2005). Although drills and exercises might help to avoid issues during emergencies, there should be no expectation that staff can handle evacuation procedures with the skill level associated with their daily tasks. Due to exhaustion and dislocation, the danger involved with these intense, irregular activities may rise. Evacuation may require double shifts (or longer) in addition to regular workdays, despite the effects of shift work fatigue being relatively well understood. This issue is made more difficult by the need to perform in unexpected environments, whether these be different facilities within the hospital or different places geographically. Therefore, the hospital management needs to attend to this issue carefully.

In employer-employee relationship, the employer has the duty to always protect the employees' safety at work (Aziz & Yusof, 2015). Duty of care exists in normal circumstances whereby if an employer does not take the usual degree of precaution, the employee or his property may be injured or damage. In the case of *Kanagasabapathy v Narsingham [1979] 2 MLJ 69*, the failure of the defendant-employer to provide a sufficiently safe system of work to the employee has initiated legal risk. As the employee sustained injury during work because of the dangerous circumstances, the court found defendant-employer was responsible.

#### **2.6.4 Medical Negligence**

The study by Wang, Lv, and Song (2013) shows that approximately 37% of the medical staff works at night, and studies show that working at night increases the likelihood of psychological problems such as emotional confusion, pessimism, depression, and anxiety. Instead of that, medical staff should avoid working long hours or at night because these factors could impair their judgment and cause them to react more slowly to crises (Huang et al., 2019)

Liability risk exists in all medical care circumstances, particularly when the outcome is less than ideal or unexpected. Disaster situations may lead to a situation with few options for both patients and doctors. (Hanfling, Altevogt, Viswanathan, & Gostin, 2012). Patient preferences for health care options may have less weight, and clinicians may have fewer treatment options available to them. A healthcare provider may be more likely to be sued if they deny treatments that would have been given in a typical medical setting. It is significant to remember that malpractice claims following crises are uncommon. However, there is evidence that the medical practitioners most at danger

of litigation are those who reside in the disaster-affected area and work there instead of evacuating. (Courtney & Hodge Jr, 2011; Pou, 2013)

In the emergency situation, the legal risk establish to the medical practitioner if they failed to attend to and treat a non-patient (someone who is not listed on hospital records as an outpatient or who is not directly receiving hospital services) (D. P. N. J. Kassim (D. P. N. J. Kassim, 2010), 2010). In the case of *Lowns v Woods (1996) Aust Torts Reports 81-376*, the court held the defendant-doctor liable for negligence to attend a boy in an emergency who finally suffered brain damage due to seizure

### **2.6.5 Late Evacuation Order**

In some cases, the hospital's management is in charge of making the evacuation order (Taaffe et al., 2005) It may, however, be mandated by local or state government. This could be a major issue that needs to be resolved quickly. Other threats, which would necessitate an immediate evacuation with much less time to prepare but do not enable a staged evacuation based on reasonably accurate arrival estimates, could happen When evacuation is decided to be necessary yet difficult due to the threat, there is a severe complication that may be approach worst case scenario .

According to Hassan (2015), an employee, owner, or employer has a duty of care not to cause injury to another person under tort law. Thus, legal obligation to act in a way that ensures the safety of others and to provide them with a reasonable degree of care is known as a duty of care. The breach of duty of care establish legal risk to the person who act in improper way. The evacuation order must be done on proper way.

This can be further explain in the case of *Abdul Aziz bin Awang @ Muhammad & Ors v Tenaga Nasional Bhd [2020] 7 MLJ*. The defendant's release of water from the Sultan Abu Bakar Dam (SABD) in the Cameron Highlands, Pahang has caused extensive

damage to the plaintiffs' residences and the death of 4 people. The court held that the defendant committed negligence by failing to install real-time water level measurement equipment as the decision to release water from SABD was not supported by sufficient justification.

### **2.6.6 Safe Escape Route**

Usually, evacuation or sheltering is the best response to a warning and the best approach to get people out of physical danger range (D. E. Alexander, 2015). However, the procedures and route for evacuating persons must be accessible (or there must be appropriate, safe locations for in situ or vertical evacuation).

For hospital evacuation, it is important to us battery-operated exit signs and adequate stairwell lights (Cocanour et al., 2002). These would have helped evacuees safely maneuvering to safe place. Besides, in hospital, there is a problem with insufficient evacuation space in the corridors (Huang et al., 2019). Chairs are frequently provided in hospital corridors for people to rest. Because of the rising number of inpatients and insufficient beds in hospital wards, some beds are placed for patients in the corridors. In order to accommodate more patients and relieve the intense pressure brought on by the rising number of inpatients, the aforementioned measures effectively utilise the limited space available in hospitals. However, when it comes to evacuation procedure, the chairs and beds in the corridors obstruct the escape route.

In the Law of Tort, the principle of Occupier's liability refers to an occupier's or premise owner responsibility for harm caused to the visitors in his property (Pheng & Detta, 2018). The definition of premise has been decided by the court in the case of *Lau Tin Sze v Yusuf bin Muhammad [1973] 2 MLJ 186* which defined premise as all types of structures, land spaces, vehicles used to transport people, including tractors and types

of structural features such as scaffolding, ladders, walls, pylons, and grandstands. In the case of *Sri Inai (Pulau Pinang) Sdn Bhd. V. Yong Jit Swee & Ors (2003) 1 MLJ 273*, the failure provide safe escape route during emergency situation has imposed legal risk to the occupier where this failure has claimed the lives of four people and injured five more during fire incident. The court the court determined that Majlis Perbandaran Pulau Pinang (MPPP) and Sri Inai were both equally responsible for negligence and breach of statutory duty

### **2.6.7 Temporary Shelter**

In evacuation process, refuges should be established both inside and outside hospital buildings to provide temporary shelter to people who are unable to leave in time and those who have been evacuated (Huang et al., 2019). Choosing whether to evacuate a hospital or shelter-in-place in advance of an anticipated disaster is a complex, time-sensitive decision filled with unpredictability and the possibility of serious consequences (Ricci, Griffin, Heslin, Kranke, & Dobalian, 2015). Furthermore, these choices may be made more difficult by potential legal liabilities issues, financial stress, and political considerations

Instead of that, the majority of regional and local crisis response strategies rely on the security personnel of the hospitals (O'Neill, 2005). Several hospitals in New York City have expressed concerns at local and regional planning sessions about whether their hospital security personnel are adequately trained and prepared to secure the hospital perimeter or sustain a true hospital "lockdown" if the need arises. The vast majority of hospital security personnel are unarmed, have little to no training in crowd management, and do not deal with law enforcement concerns on a daily basis. Then, the

majority of hospital perimeters are not made to prevent access to or exit from hospital premises, making it challenging to secure a hospital perimeter.

In the case of *Yeap Cheng Hock v Kajima-Taisei Joint Venture [1973] 1 MLJ 230*, the harm referring to a rock projection in a tunnel which was a concealed danger that the defendant-occupier knew about or should have known about has created legal risk. Thus, the court found the defendant-occupier liable for the injury suffered by the visitor. If the premise owner knew that the area under his control subjected to concealed danger, the owner need to ensure sufficient control made to prevent the danger.

#### **2.6.8 Criminal Act of Third Party**

The emergency department (ED) is open to the public 24 hours a day, seven days a week, making it particularly vulnerable (Kansagra et al., 2008; Simon, Khan, & Delgado, 2003). An attack on the ED might result in many victims, including doctors, nurses, and paramedics, as well as patients and their accompanying relatives. Controlling entry to the ED is thus a requirement in any hospital's preparation/response strategy for a terrorist attack. At the front desk of many hospitals, there is already an access control point. In order to prevent vehicle bomb assaults, it is also important to restrict access to the hospital ambulance dock and to search for firearms, knives, and other weapons. Despite the prevalence of violent episodes in some areas, metal detectors are rarely utilized nowadays, and notably less frequently at the ED.

According to Tuck (2013), legal risk also can be established when a defendant-occupier who can rationally anticipate that a plaintiff will suffer injury as a result of a criminal act and the defendant-occupier capable to take action to avoid it, doing nothing or commit omission. By referring to the case of *Al-Najar & Ors v The Cumberland Hotel [2019] EWHC 1593 (QB)*, the court found the hotel or occupier did not liable for

criminal injuries inflicted upon guests by the intruder or third party. The lawsuit was rejected by the court because the hotel had not failed to fulfil its duty of care to the plaintiff.

### **2.6.9 Medical Confidentiality**

During hospital evacuation which require patient transfer to other medical facility, the hospital need to maintain a written record of all patients, their attending physician, accepting facility and accepting physician (Cocanour et al., 2002). Thus, the patient's medical record was delivered with them to the accepting facility because the information system (computer system) may not working. Uppal et al. (2013) also stressed that in normal hospital situation, electronic media are the most efficient way of transporting huge amounts of data; yet, successful electronic transfer may be hampered by incompatibility difficulties between sending and receiving facilities or by computer system malfunction if the crisis struck the hospital. As a result, it is critical to have a paper backup copy of the most critical patient information for transfer (Read & Ashford, 2004). The use of paper based form however can cause patient medical information leakage.

For medical confidentiality, the medical professional cannot disclose information that was obtained throughout the course of their professional interactions with their patients including the information that was acquired outside of the course of their medical work (P. N. J. Kassim & Ramli, 2016). Breach of medical confidentiality will impose legal risk to the medical professional as they need keep such sensitive information private and to utilize it only for the patient's benefit. The breach of medical confidentiality can be referred to the case of *Dr Tan Ah Ba v Dr Wong Foot Meow* [2012] 7 MLJ 467 where the court found the defendant-doctor liable for breach of his

confidential obligation and contract breach by creating and disseminating the plaintiff-patient's medical report to other parties without the plaintiff's knowledge or permission.

#### **2.6.10 Injury to Emergency Responder**

Every hospital has Complex electrical circuits with strong electricity demand for medical equipment and other crucial machinery (Long-fei, Ming, Wu-yuan, & Yu-chen, 2011). Hospitals need long-term power sources to support the uninterrupted operation of the medical equipment, in contrast to residential or commercial facilities. However, a high demand on the power supply over an extended period of time would speed up the deterioration of electrical circuits and result in line faults, which could result in fires and other incidents involving gas explosions. This also will create legal risk to the emergency responder.

Danger or damage caused by unusual danger or risk place the legal risk to the occupier including Legally Authorized Entrants; the person those who enter places according to a legal authority, such as police officers, fire-fighters, meter readers, or health inspectors. In the case of *Shamsuddin v Yap Choh Teh & Anor [1969] 1 MLJ 26*, the police officers on duty at the quarry sustained an eye injury when a splinter from an explosion struck him and the contractor who was sued was held responsible by the court.

#### **2.6.11 Nondisclosure of Insurable Interest**

Modern hospitals are multipurpose and have a wide variety of combustibles, such as quilts and mattresses in wards, flammable chemical reagents in pharmacies and operating rooms, pressure vessels for storing medical gas, along with massive electrical equipment (Jiang, Zhang, Shang, & Tian, 2014; Long-fei et al., 2011). When fires start near certain combustibles, they could swiftly spread and possibly even explode. It

should be noted that the combustibles indicated above are found in practically every department of the hospital, making their management difficult. This situation also occur when the bomb threat turns to be real and the bomb itself explode and trigger fire in the hospital. If the hospital plans to be covered under insurance or takaful policy, the principle of the insurance/takaful law must be adhered.

The concept of Permissible Takaful Interest (PTI) Principle and Principle of Insurable Interest in insurance is similar under Malaysian Law. In addition, the applications of insurable interest can be found in the Property and liability insurance (Edward et al., 2017). In this principle, the owner of a property has an insurable interest in property insurance up to the value of the property. In the case of liability insurance, a person definitely has an interest in the possible liabilities he or she may encounter, as well as legal costs and expenses, but he or she cannot cover fines incurred as a result of criminal activity. The case that can be referred for the application of principle of insurable interest can be seen in *Chung Kuo Ping @ Richard v Malaysian Assurance Alliance Berhad [2007] MLJU 587*. The court determined that the Plaintiff had no insurable interest in the logging truck at the time the Insurance Policy was issued due to the fact that the Plaintiff was not the registered legal owner of the logging vehicle in question. In this case, the legal risk appear as the owner did not provide the adequate legal ownership proof of the logging truck.

Next, another principle in Insurance and Takaful Law is the Principle of Utmost Good Faith or *uberrimae fidei* (Dass, 2015). In this principle, insurance contracts compel contracting parties to reveal to one another any information that could influence either party's decision to engage into the contract, regardless of whether such information was requested. This is because insurance contracts are founded on mutual faith and trust between the insured and the insurer. The legal risk exist if either party

fail to comply with this principle which can cause the insurance contract void and null. In the case of *Glicksman v Lancashire and General Assurance Co Ltd* [1925] 2 KB 593, the court held that an insured who sought for a burglary policy had an obligation to report that he had been denied a burglary policy by another insurance firm earlier. As the plaintiff-insurer neglected to disclose that he had previously filed for a burglary policy with another insurance firm, the insurance policy is null and invalid.

## **2.7 Suggested Legal Risk Treatment in Crisis**

For legal risk treatment, several suggestion has been found in the literature. The four suggestion as follows:

### **2.7.1 Legal Risk Acceptance (Tolerate)**

#### **1. Non-existence of predetermined uniform procedure for hospital evacuation**

Every medical facility is unique, with its own set of architectural characteristics, number of floors in the structure, number of patients with different physical and mental health condition, and a variety of other aspects (Goniewicz et al., 2020). Because of this, every hospital should have its own strategy for evacuating patients in the event of an emergency. Another thing to keep in mind is that each event is distinctive. Evacuation can be triggered by a warning that explosive materials have been planted - in this instance, there are usually no obstacles in the form of smoke, fire, poisonous compounds from combustion, visibility or time pressure. Due to the many different aspects that were discussed previously, it is not possible to design a predetermined approach that is uniform across all facilities. Each evacuation plan, however,

should have the same primary objective: to evacuate as many people as possible from the area of risk in the shortest amount of time.

Numerous requirements will arise inside an organization depending on the nature of the incident or threat, which then will lead to a number of different responses (Wabo, Örténwall, & Khorram-Manesh, 2013). There is a probability that some threats, such as landslides, pandemics, and infections caused by multi-resistant bacteria, do not immediately call for a full evacuation, but rather a partial and gradual one, or the reallocation of an internal resource, such as cancelling elective surgery. Despite of that, a fire within the hospital may prompt the rapid evacuation of at-risk patients and employees to a temporary shelter for subsequent relocation to other healthcare institutions.

### **2.7.2 Legal Risk Control (Treat)**

1. The enforcement of Occupational Safety and Health Act 1994 (OSHA 1994) at workplace

The obligation of an employer to maintain a safe workplace for his employees has always been recognized by common law (Aminuddin, 2020). Every contract of employment requires that the employer provide a safe working environment for his employees. With this obligation in mind, Malaysia has created regulations that require employers to implement specific safety measures as a condition for employment in the country. The Occupational Safety and Health Act 1994 was enacted into law by the federal government. The Act's principle is that those who produce the risk and those who deal with the risk are responsible for ensuring safety and health in the workplace. The

Act acknowledges that the most significant obstacle to enhancing the safety and health of workers at their place workplaces the negative attitudes held by both employers and employees. Therefore, the Act seeks to ensure that all parties at the workplace are held equally accountable for their safety and health. The Act outlines the roles and obligations of each of the parties involved. The Act is applicable to all industries and sectors in Malaysia. Employees serving in the armed forces and maritime workers are exempt from this rule.

According OSHA, employers have obligations in relation to health and safety at work. It is the responsibility of the employer to provide a working environment that is, to the greatest extent possible, free from hazards to employees' health. In addition, employers are responsible for ensuring that proper procedures are in place for the use or operation, handling, storage and transportation of plant and substances; providing employees with information, training and supervision to ensure their safety; maintaining the workplace; and providing sufficient welfare facilities for workers. Employers have a responsibility to protect not only the safety and health of their own employees, but also the safety and health of any third parties who might be put in danger as a result of acts performed by employees.

Visitors to the facility, for instance, may be ordered by the employer to wear suitable safety equipment, such as helmets, in situations when it is necessary to do so. In accordance with Section 15(2) of OSHA, employers are also required to provide their employees with adequate information and training in order to ensure their safety when carry out the job. Workers' lack of awareness leads to a significant number of workplace accidents. Besides, the safety

training that is provided to employees is required to be both general and specific. The general training should focus on the significance of safety in the workplace, while the specific training should address specific hazards. Required training must address the hazards that employees are most likely to encounter in the course of their work. These may involve drills for preventing fires and evacuating the building in case of an emergency. Moreover, it is the responsibility of both employers and employees to ensure that their workplaces are safe and healthy. Protective gear and equipment must be worn at all times and employees must follow any safety guidelines supplied by their employer. Under his contract of employment, an employee is obligated to follow the employer's instructions on safety and health, and the employer can impose disciplinary action against any employee who defies a lawful order. An employee may be subject to legal action, and if found guilty, the courts may sentence them to either a fine of up to RM1,000 or a period of imprisonment of up to three months, or both, depending on the severity of the offence. Although it's unlikely that this law would be used against employees, its implementation should serve as a message to those who refuse to obey safety and health requirements. The Minister may order designated industries and organizations to hire a qualified safety and health officer. The Act's regulations specify a safety and health officer's responsibilities. This responsibility include the duty to produce a monthly report to the employer on occupational health and safety issues.

## 2. Compulsory Installation of Fire Alarm Panel under By-law

The purpose of fire alarm systems is to provide notification of fire incident within the premises in which they are installed. It provides early warning communication to the building's occupants and fire event notification to both on-site and off-site emergency response team (Council, 2022). The system also administer control of fire safety activities such as recalling and shutting down elevators, controlling fire doors, and controlling fans and dampers that help prevent the spread of smoke. Initiating devices like heat detectors, smoke detectors, flame detectors, and other fire-related detection equipment are used to detect fires and deliver warnings when they are detected. Extinguishing systems such as automatic sprinklers, gaseous agents, and other extinguishing agents are also monitored by fire alarm systems. In addition to automatic fire alarm systems, buildings' occupants can also detect a fire through the use of manual fire alarm stations. All of these input devices give an indicator that a fire event may be occurring within a facility, which can be helpful in emergency situations. These input functions also serve the purpose of starting up the required output functions for firefighting procedure. The occupant notification, the emergency response notification, the operations of the fire safety system, and the annunciation of input devices are all examples of output functions. In the event of a building evacuation, occupants might be notified across the building or in specific zones. Notification of emergency response can be sent directly to the fire department, but in most cases, at the beginning of fire incident, it is handled by a third party or by on-site people who are responsible for monitoring the fire detection and alarm system. To keep smoke and fire from spreading throughout the building, devices such as fire/smoke

dampers and fire door closures are frequently employed. Fire safety functions also include calling the elevator back for fire safety service use and the safety of building occupants, as well as shutting it down in case of a fire in the hoist way or machine room. In Malaysia, a study has been conducted by Ismail, Taib, and Mydin (2014) to examine fire protection systems in student's accommodation, consisting of two types of buildings, namely student dormitories (Tekun and Aman Damai Buildings) and students' family house accommodations in Universiti Sains Malaysia, Penang, Malaysia. In Malaysia, Uniform Building By-Laws (UBBL) 1984 provides the guidelines for the system. Several fire protection devices has been examine in this study. First, the fire doors. The purpose of fire doors is to protect persons escaping from heat, and more importantly, from the smoke generated from a developing fire. The fire doors at Aman Damai Building are able to resist fire for one and a half hours. Furthermore, the Fire System Panel also has been installed in both building. This Panel can assist the firefighter in identifying the location of the fire due to its zonal operation. In the event of a fire, the specific zone indicator light will illuminate on the main fire alarm panel. Figure 2.3 shows the location of the fire doors installation in the building and Figure 2.4 shows the Fire System Panel for the building.



Source : (Ismail et al., 2014)

**Figure 2.3:** Fire Door



Source : (Ismail et al., 2014)

**Figure 2.4:** Fire System Panel

This study has concluded that the buildings in this case study were equipped with UBBL-compliant fire protection equipment. However, the installed fire protection systems differed between new and old buildings.

In the event of fire, the decision making for evacuation process can be made by referring to the Fire Systems Panel. This is regarding the purpose of the panel in notifying the occupants or emergency responder which area that is on fire. Thus, it can be observed that the decision making process especially for building evacuation can takes into account the usage of integrated sensors system such as smoke detectors and heat detectors. Failure to have a proper safety measuring equipment which can helps in decision making can leads to crisis which can put an organization into legal liability and losses. This can be referred to the case of *Abdul Aziz bin Awang @ Muhammad & Ors v Tenaga Nasional Bhd [2020] 7 MLJ*. In this case, the plaintiffs, Abdul Aziz bin Awang and other residents of Bertam Valley, Cameron Highland, Pahang, are suing Tenaga Nasional Berhad (TNB) as defendant for damages resulting from the defendant's release of water from the Sultan Abu Bakar Dam (SABD) in the Cameron Highlands, Pahang. This incident has caused extensive damage to the plaintiffs' residences and the death of four people. Before the tragedy, the defendant owned and operated the SABD, which collects water from Sungai Habu, Sungai Bertam, Sungai Ringlet, and other minor rivers. Three releases of water from the SABD were made by the defendant's employee early in the morning of October 23, 2013. These releases of water produced major floods that ruined the plaintiffs' homes, businesses, and agricultural land in Bertam Valley, Cameron Highlands. Finally, TNB was found guilty by the court in this case. At the time of the water release incident on October 23, 2013, there were

no real-time water level measurement equipment of the water input at SABD. The judge also came to the conclusion that this instrument need to be installed in order to assist in maintaining the right water level of the dam. This procedure can ensure the right volume of water that need to be released in the event that it is essential to do so. The defendant committed negligence by failing to install this equipment. This is because the decision to release water from SABD was not supported by sufficient justification.

### 3. Adequate Training for Hospital Employee

In crisis management, the employer must train their employees in legal issues such as evidence identification and preservation, as well as procedures for dealing with witnesses (Dunlop, 2004). The preservation of evidence including all notes or paperwork from all relevant witnesses must be handle properly.

The purpose of utilizing scenarios in emergency planning is to analyze and anticipate needs caused by predictable future crises (D. E. Alexander, 2015). Consequently, the scenario should generate a range of potential outcomes and be used as a research tool.

Also, by using decision-making tools during training and exercises, administrators and public officials can enhance their abilities to make decision on evacuation and shelter-in-place plans (McGinty et al., 2017; Nomura et al., 2016)

### 4. Good SOP Formulation and Planning

Lack of a plan during a crisis could be interpreted as negligence given the clear necessity to safeguard the public (D. E. Alexander, 2015).

The company should have a recovery plan in place in the event that it is subject to legal scrutiny. This plan should call for an audit of the concerns and suggestions resulting from legal investigations and results (Dunlop, 2004). Among the most practical preventative measures the organization can adopt in identifying legal liability is Conduct an audit of their legal responsibilities under all relevant legislation. The result of the audit then being compared to operational policies, standard operating procedures and training documents. Next, the organization need to keep library of findings from this inquiries and learn from the outcomes and recommendations of those findings. Instead of that, Integrating Building Information Modeling and facilities management will be a viable option for developing efficient evacuation plans because they not only address the issue of creating complex scenarios but also enable emergency management techniques (Huang et al., 2019).

### **2.7.3 Legal Risk Transfer**

#### **1. The Role of Social Security Organization (SOCSO)**

Employees' Social Security Act 1969 only applied to selected regions in Malaysia (Aminuddin, 2020). However, the act now has expanded to include all sectors in the country. The employees in Malaysia must be registered as the members of the SOCSO in order to be eligible for benefits. Temporary and part-time employees, as well as non-citizens, are all covered by the law (as of 2019). It is the employer's responsibility to ensure that their employees are members of SOCSO and they need to pay to the SOCSO's monthly contributions. It is the employer's responsibility to ensure that their employees are members of SOCSO and they need to pay to the SOCSO's monthly

contributions. Failure to do so will expose the employers to criminal prosecution. SOCSO contributions, like Employees Provident Fund (EPF) contributions, are paid by both the employer and the employee. The employee and the employer each pay a share of the total, but the employer pays a greater proportion than the employee does. The current rates add up to around 2.5 percent of the employee's monthly salary.

The Employment Injury Insurance Scheme and the Invalidity Pension Scheme are the two schemes that are available through SOCSO. The first scheme allows employees to receive medical treatment at any of the SOCSO-approved clinics or government hospitals, with SOCSO covering the costs. An employee is eligible for a temporary disablement benefit while on medical leave if a doctor certifies that he or she is unable to do their job for a period of at least four consecutive days. In the event that the worker is found to be permanently incapacitated as a result of an accident that occurred on the job, he will be eligible to receive either a one-time payment or a monthly pension, depending on which option he chooses (depending on the amount due him). If a person is so severely disabled that he needs the constant personal attendants of another person to look after him, then that person is eligible to file a claim for an allowance to cover the costs of those attendants. In the event of an employee's death as a result of an accident, his or her dependents are entitled to both a monthly benefit and a funeral benefit. For injured employees, SOCSO also provides physical rehabilitation facilities and even vocational training to assist them in finding suitable positions. For second scheme, workers who have been contributing to the SOCSO for the required amount of time are eligible for the Invalidity Pension Scheme. This scheme entitles them to a pension or a grant

as well as additional benefits if they become unable to work due to a medical condition of any kind.

#### **2.7.4 Legal Risk Sharing**

General Takaful is designed to provide a form of risk management that is compliant with Syariah based on the principle of risk sharing (IBFIM & MTA, 2018) . This type of takaful protects participants against financial losses, liability, or injury as a result of or following a misfortune or accident to their property, assets, or persons. By considering the pre- and post-loss objectives, General Takaful is a risk management tool that aims to manage risk exposures to participants. Pre-Loss objective including preparing for possible losses in the most cost-effective way while for Post-Loss Objectives dedicated to organizational survival. The types of takaful as follows:

##### **1. Employers Liability Takaful**

If an employee is injured or suffers from a disease as a result of an accident while at work, the employer may be held liable (Takaful Malaysia, 2022) . For employees who are not covered by the Workmen's Compensation Act 1952 or SOCSO, liability at law exists. Thus, the employer may seek indemnity under the Employer's Liability Takaful. This takaful covers any amount the employer becomes obligated to pay an employee as compensation for accidental bodily injury or disease. It also covers all litigation costs and expenses.

##### **2. The Public Liability Takaful**

The Public Liability takaful is designed to safeguard a business against its persons and damage to their property resulting from the negligence of the

business or its workers or from faults in its buildings (IBFIM & MTA, 2018). With the prior agreement of Takaful Operator, the cover includes legal fees incurred by the company. The exceptions to this form of takaful are numerous. The exclusion includes liability that can be covered by the Workmen's Compensation policy, the Employers' Liability policy, and the SOCSO scheme (set up under the Employees' Social Security Act of 1969), loss or damage to property owned by the insured or under his care or control, and loss or damage to property related to a steam boiler or any boiler vessel or equipment.

## 2.6 Conclusions

This section has illustrated the previous literature on risk management and legal risk. To date, there is no published literature that discussing the legal risk management in the context of crisis management involving bomb threat and patient evacuation. For this reason, the concept of risk and legal risk used in the previous literature that has been outlined in this chapter will be apply in the research methodology. This application is needed in order to achieve research objective of the study.