# Earthquake Preparedness Plans

## Abstract

Earthquakes are occurrences that might disrupt business operations by causing injury, death, and damage to property. This is a natural earthquake that cannot be prevented by human nature. Because of this, it is the role of businesses to formulate methods to continue operations following such calamities. Various emergency agencies have projected steps to be followed in mitigating the risks as a result of earthquakes and disasters of similar nature. The research paper presents earthquake preparedness plans businesses can deploy to ensure operations continue as required and damage to property in addition to death and injuries to people are reduced when earthquakes occur.

## Introduction

An earthquake, which is the abrupt and swift shaking of the ground, is a natural phenomenon that occurs owing to the breaking and moving of rocks that are below the Earth’s surface. The shaking might cause damage to bridges and buildings; disrupt gas, phone and electric service, trigger avalanches, landslides, fires, flash floods, and at time tsunamis. Floods, fires, electric shocks and destruction of property can be highly harmful to businesses. In case of an earthquake occurrence, businesses whose locations are in close proximity to old waterways, unstable ground or buildings with bases resting on an unconsolidated landfill will be at a higher risk of damage [2]. Trailers or buildings as well as manufacturing plants which are not tied to a strengthened base secured to the ground are essentially at risk since they can be uprooted from where they were mounted in case an earthquake occurs.

There is no clear time when an earthquake is expected to occur, therefore, underlining the importance of business to draft plans to ensure workers do not suffer harm or death. For many years, the forces plate tectonics have molded the earth, as enormous plates that form the earth’s base gradually shift, under and past each other. When earthquakes take place in populated regions such as in businesses, they may cause injuries and deaths in addition to comprehensive damage to property. Many earthquake-related injuries in business environments result from collapsing floors or walls, falling objects, flying glass resulting from ground shaking or employees attempting to flee in during the shaking [5]. Apparently, much of the damage in the natural force is foreseeable and preventable. The paper, therefore, discusses methods in which employers and employees can deploy to prepare for an earthquake by designing an emergency response plan and undertaking workplace training. Preparedness involves planning for an earthquake before taking place, equipping employees with data and emergency supply kits, in addition to executing preparedness plans.

## Analysis

The stark earthquake, together with its unpleasant after-effects, serves as one of the highly startling and destructive forces of nature. If the sudden movement takes place in populated business areas, it might lead to injuries and deaths to employees and consequently damage of property. It is essential for businesses to be prepared for calamities similar to an earthquake. Furthermore, the business should have the capability of recovering speedily subsequent to the occurrence with least quantity of losses. The research note elaborates a number of steps to have an earthquake resistant business [1]. Preparedness can decrease monetary and human losses accompanying calamities for entities. Businesses need to be ready to evacuate their workers and assist them to offer refuge in public shelters as well as formulating methods to provide for their basic medical requirements.

## Steps

### Identify Risks and Capabilities

The first phase is to recognize what might interrupt operations temporarily or permanently. It is fundamental to understand the forms of emergencies that might impact the company both in the inside and outside. Companies should attempt to discover whether it is an earthquake prone region and the likelihood of earthquake happenings. Therefore, before deciding where operations should be located, owners must conduct a background check of the location for information on earthquake forecasts, faults, possible losses in main earthquakes, preparedness among others factors [3]. This can be conducted by performing a business impact appraisal for the possible emergency situations.

### Business Continuity Planning

The speed at which a corporation gets back into business operations after an earthquake, in many cases, depends on the emergency planning put in place today. Companies should embark on early planning to enhance the probability the business will survive and subsequently recover. These are operations that can be performed by closely assessing and revising a corporation’s business development flow chart. Managers should then identify/recognize the business operations critical for the corporation to survive and recover as soon as possible to avoid being out of operations. In case a business has a major supplier of materials, it may be probable that the calamity shuts them down [4]. It is vital to formulate a list of important business contractors and various other operations for situations emergency.

One of the roles of management should be including co-workers from all levels in planning operations and as active participants in the emergency management team. It is also crucial to consider a wide cross-section of individuals from the entire firm but emphasize on people with expertise essential for routine operations. These will probably include individuals with technical skills in addition to executives and managers. The other phase is to define crisis management processes and people’s roles beforehand. Management has the responsibility of making sure people involved understand their roles. This should not be the only case but other people should be trained in case backup is required [2]. An emergency preparedness plan needs to be reviewed annually as operations within the company changes over time. When a company appoints new workers or in the case of variations in the operations of the company operations, managers should update plans and communicate to all people.

### Execute Structural Risk Mitigation Plan

It is vital for a business to alleviate the structural and nonstructural hazards to the company. Such can be conducted by enhancing the seismic wellbeing of the building edifices and mounting fire sprinklers. The information technology infrastructure can be shielded from damage using hooks and loop fasteners to computers, network devices, servers, and valuable equipment from plummeting. Additionally, mounting anchors on pallet rack frames can secure systems to aid avert accidents when earthquakes happen.

### Emergency Planning for Employees

Human resources are business most valuable and essential asset. There are various procedures companies can implement before a calamity, but businesses need to learn about what individuals require to recover following a disaster. It is possible that a company’s staff requires time to guarantee the safety of their relatives and family members; nonetheless getting back to routine work is essential to the individual recovery of personnel who have witnessed calamities [2]. It is, therefore, vital to re-establish routines when appropriate. The Federal Emergency Management Authority (FEMA) notes that two-way communication is core prior, in the course of and following a disaster. This can be achieved by incorporating emergency preparedness information on the company intranet, newsletters; periodic worker emails, in addition to other internal communications devices [5]. The business needs to consider mounting a telephone booth, an email alert in addition to a call-in voice recording to converse with workers in cases of an emergency. It is vital to include disabled people in emergency planning as they need dire help when calamities such as earthquakes happen. People with disabilities should project their communication problems, equipment instructions, physical limitations as well as medication procedures. The emergency plan must be routinely evaluated, and exercises and drills performed to try the plan.

### Emergency Supplies for Personnel

Following an earthquake, companies will require self-sufficiency as preliminary responders will be tackling high primacies, such as schools and hospitals. There is a need for trained personnel to recognize and assist anyone hurt. Furthermore, it is fundamental for the business to offer primary needs such as water, sanitation, and food to their employees. Required FEMA supplies for such situations include

1. Water, quantities for portable kits will fluctuate. People should determine the amount they have the capacity to both store and move to other regions without difficulties. In the case of feasibility, businesses are advised to store a gallon per head each day, for sanitation and drinking [3].
2. Food, a minimum of three meals a day of non-perishable stuff
3. First Aid Kit
4. Battery-powered radio and additional batteries
5. Filter masks or dust, readily available in hardware warehouses, which are ranked founded on how miniature a particle they sieve
6. Moist towels for purposes sanitation
7. Whistle to call for assistance
8. Pliers or wrench to exit utilities
9. Opener for food cans, in case the kits contain canned food
10. Flashlight and additional batteries
11. Duct tape and plastic sheeting to seal room
12. Plastic ties and garbage bags for individual sanitation

These steps are essential for large and small businesses to decrease the effect of an earthquake and aid the company to recover speedily following completion of the earthquake [2].

## Conclusion

The research paper, therefore, provided various methods businesses can use in preparing earthquake preparedness plans. The steps discussed include identifying the capabilities and risks, developing a business continuity plan essential following the calamity, implementing a structural risk mitigating plan, preparing an emergency plan for employees, as well as providing emergency supplies for workers. Many businesses have failed to attain their previous standards following an earthquake. This is because managers of such companies do not consider formulating preparedness plans citing past non-occurrence of such a calamity. It should be noted that calamities also include fire. Businesses should be in a position to rise and continue with operation after calamities, and this will only happen if a recovery plan is in place. It is essential to note that such occurrences cannot be avoided because of the natural status, but people need have plans to continue with operations as if nothing happened. Operations might be affected following the disaster but closing down business is not reason enough.

## List of References

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