

Description of Organization Failure Process and the Way of Prevention by a Simulated Model Originated from Accident Domino Theory

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ABSTRACT

Following the modernization and the developments acquired in the business world, the challenges also came arise in the business areas and industries. Organizations have to pave their path through the challenges in order to survive and go ahead toward their mission in the competitive business world. They have to employ professional techniques and concepts to get benefits. The more professional the techniques are, the more challenges should be handled and the more likelihood of failures exists as well. The root of such failures was not known so that the seeds to be removed. Thus, the authorities in the organizations paid attention a lot to what causes the failures, what process lead to failures, and how to prevent them in order to avoid the high expenses followed by the failures. Therefore, the goal of this paper is to develop a model to define the items mentioned above. The model originated from accident domino theory written by Herbert William Heinrich in 1929. According to the theory, the lack of control from management can cause unsafe acts and unsafe conditions in organizations leading to errors. A simulated model of organization failures could have developed a progress line of failure originated from domino theory defining a progress line of injury. It defines that the organization failures are followed by errors occurring in the progress line of failure including five sequences same as the progress line of injury at accident domino theory.

KEYWORDS: Simulated Domino Model, Organization Failure

1. INTRODUCTION

The considerable success with a minimum of resources in recent years, on one hand, and the performance failure of institutions with the best financial supports and facilities on the other hand, indicate a significant role of non-financial supports and facilities in achieving organizational goals and success[1].

Time is passing quickly and the business areas are being expanded and developed. Following that the critical success factors also change. Therefore, each sector or industry has to make itself compatible with the developments in terms of productivity and performance[2]. They have to employ the latest and updated tools and methods in order to survive and gain benefits in the competitive world. The role the management can play a significant factor to achieve such purposes. Managers and senior executives of organizations should consider the compatibility of strategies and policies in the organization further than before with today's realities[3]. They must run the organizations through the challenges ahead. Organization failures and the efforts to avoid and prevent such failures are as the most difficult challenges for the authorities nowadays.

Management comprises planning, organizing, staffing, leading (directing), and controlling an organization (a group of one or more people or entities) or efforts for the purpose of accomplishing a goal so that it can be a complex issue[4]. Professional management is the results of conscious and purposeful activities, controlling measures and decision making. It also affects the working environment toward high discipline and productive levels[5].

The lack of suitable and competent methods to lead and control organizations and companies followed by competitive business world has appeared since the 1980s and has jumped to a high level nowadays. In other words, with commencement of the period, the traditional methods, models, and concepts did not help those to survive and taking benefits[6]. This paper focused on comprising accident domino theories with a new concept to generate a new model to describe how organization failure might happen.

It can be stated that, following professionalism, the authorities have found out many failures threatening organizations due to the lack of prominent managers [7]. They tried to overcome or minimize the weaknesses by highlighting some supporting factors such as directing staff, communication, understanding the organization policy

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and organization objectives, acquiring organization's current information affecting management position[8]. Of course, these factors, alone, could not guarantee that authorities and managers can protect the organizations against failures. They have to employ the new concepts and discovering models compatible with current condition in order to solve the problems. It is true that the supportive factors influence organizations positively but they cannot play a complementary role to eradicate the root causes of the failures from the entire organization. Organization culture has also been introduced as an influencing lever for managers to run the organizations[9]. As another factor, controlling the activities and behaviors from management is vital to run an organization through the threats around. Therefore, another factor which plays a significant role within an organization in order to avoid losses is control by management[10].

Accident domino theories define the processes leading losses that can be simulated to a model determining organization failures. In general, the scientific contributions of this paper are 1) to introduce a new model causing organization failure originated from an old and a famous accident model from a different area. 2) Suggesting the way to prevent occurring failures in organizations.

In this research, the first section dealt with occurrence of organization failures within organizations as a challenging item in the complicated business world and the lack of identifying reason of such failures as well. The second section introduced the accident theories and models which can be hired to generate and infuse a new and simulated concept and model of failure occurrence in organizations. The third section developed a simulated model originated from the models explained in literature review. Also, the way how to justify the progress line of failure and how to prevent developing the progress line of failure are contributed scientifically.

2. LITRATURE REVIEW

2.1Heinrich Accident Domino Theory

Herbert William Heinrich (1929) proposed Domino theory which a lot of people have developed frequently so far. Figure 2 depicts the steps according to which accident causations are labeled on five metaphoric dominos in the sequence.

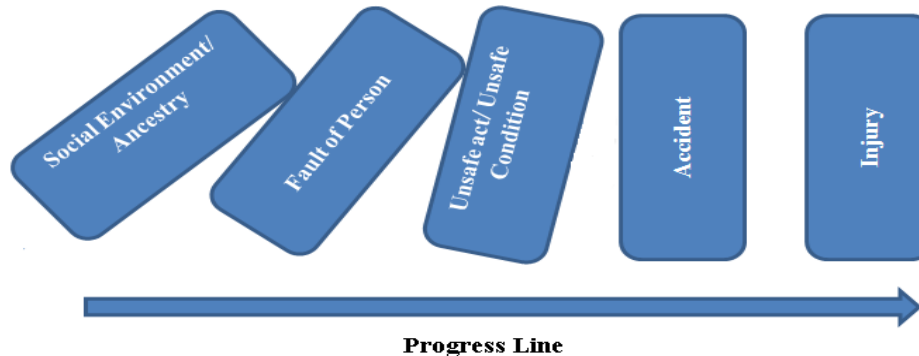


Figure2. Heinriech's Domino's sequences of accident causation theory

- **Social Environment and Ancestry:**
Social environment or inheritance is considered as the cause of a number of features like anger, greed and irresponsibility. That is, the traits like these might be enhanced naturally and have roles in individuals' fault.
- **Fault of Person:**
There are a number of disagreeable and objectionable traits or behavior like irresponsibility, anger and ignorance which might be inborn not acquired. The environments of life that are considered in unsafe conditions or Acts cause the emergence of these traits too.
- **Unsafe Acts or Unsafe Conditions:**
Unsafe conditions and acts are described on the domino at the middle point of the succession that causes an event to happen. These factors are the main elements that result in an accident or bad happening. The best, simplest and most influential method to ensure that these accidents will not happen is to lift up this domino.
- **Accident:**
Bad events or accidents are the events that are neither wanted not welcomed because they lead to wound. Individual's falling from height, being hit as a result of sudden fall of something are examples of these happenings.

- Injury:

The outcome of hurting a person’s body is an injury [9]

2.2 Updated Domino Theory

Heinrich presented the role of managers played in the “Domino theory”. At first, Bird and Loftus (1972) had placed it in the theory and then, by Heinrich, was led to more recent successions consisting of:

1. Lack of control/management
2. Basic causes/origins (basic causes: 1-personnel factors, 2-job factors)
3. Immediate causes/Symptoms (unsafe act and condition)
4. Incident (the events which could cause harm to either people or properties)
5. Loss (properties, people, processes).

The procedure of events and happenings, based on the modified model of Domino theory indicating the management’s function, starts by not having and the need to control by management. In order to avoid the bad happenings, managers should be able to lead, organize, control and plan work.

Vincoly categorized the main elements resulting in incidents and bad happenings in two different categories including:

- Personnel factors: These elements consist of individual issues (not related to job), mental issues, sickness, and negative insights, not being capable and not being able to understand adequately.
- Job factors: The elements include the work that is not appropriate and sufficient, wear and tear that is ordinary or not ordinary, the tools or utensils which do not have good quality and inappropriate maintenance or design.

Furthermore, the model that was modified, determined the acts and conditions which are not safe enough and considers them as the signs of the main reasons resulted from domino 1 and 2 (See Fig 3). Whereas in Vincoly’s view, the elements can be uncontrolled and unchecked through the system of management due to which a bad happening will occur [10].

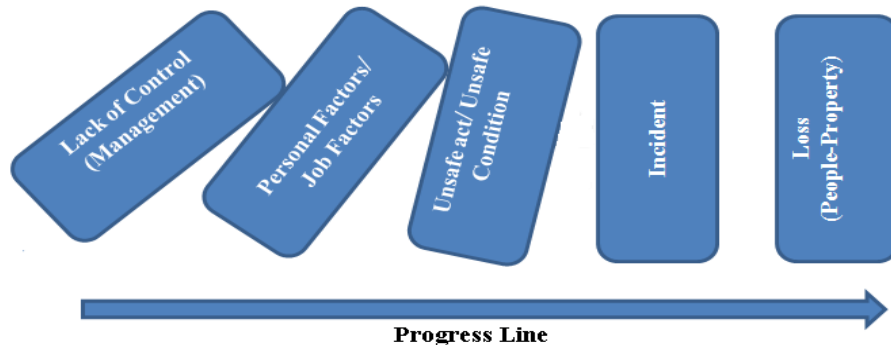


Figure3. Updated Domino sequences of accident causation theory (Bird 1974)

3. DISCUSSION AND RESULTS

3.1 Simulated Domino Theory for Organization Failure

The theory could be constructed based on accident domino theory. It could be defined as a theory by the dominos contributing the progress line of the failures labeled as below:

1. Lack of control/management
2. Basic causes/origins (Basic causes: Personnel factors/ Job factors)
3. Immediate causes/Symptoms (Unsafe act / unsafe condition)
4. Error
5. Failure

To justify the progress line of the simulated model, it could be defined that, unsafe act and unsafe condition as the centralized factors causing error in the organization originate from domino1 (Lack of Control from management). In other words, the fall of the first domino means the lack of control from management. The progress line of the fall by the dominos starts by the first domino. Each domino falls over another and it proceeds forward so that errors and finally failure are resulted in the organization. In fact, lack of control from management is the root cause of unsafe act and unsafe condition followed by errors. Thus, lifting up the domino3 breaks the falling chain

and prevents the failure. It means that if the suitable and effective control from management exists, then there would not be any failures within the organization[11].

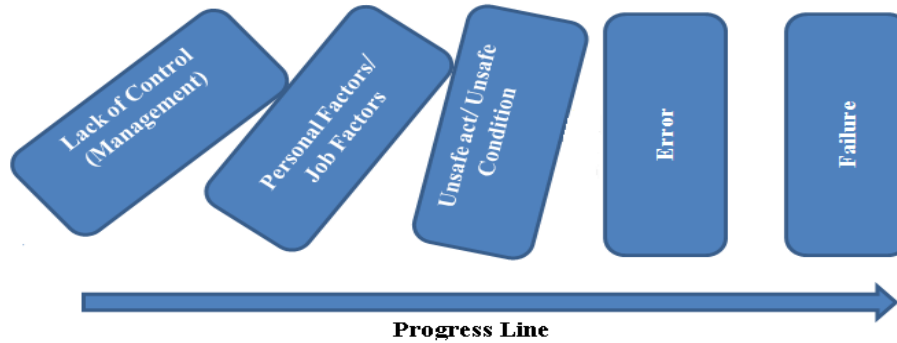


Figure4. Simulated Sequences of Organization Failure Based on the accident Theory

3.2 Controlling as a Management Function to Prevent Organization Failure

The procedure of checking the performance and achievements as well as taking steps to guarantee the satisfactory and planned outcomes is considered as controlling. Based on the procedure of controlling, the methods to do the appropriate things that should be implemented at the appropriate time are corrects and suitable. Controlling can guarantee that the whole directions of every person and team match with what they have planned for long or short terms. Through controlling, the objectives and achievements, in the whole organization, are in correspondence with one another. As well, it can assist with the fulfillment of crucial regulations and strategies of organizations [12, 13].

3.2.1 The Control Processes

The procedure of controlling can be mentioned as below:

- Set up criteria and objectives

The initial step of the procedure of controlling is to plan and to establish the objectives of performance. These objectives are determined and there are determined criteria to measure them too.

1- Output Standards: The final outcomes and achievements of a performance related to time, cost, quantity and quality are measured by these standards.

2- Input Standards: The work efforts that are put into practice through a performance task are measured through input standards.

- Measuring Actual Performance

In order to mark the difference or diversity between what is really wanted to happen and the actual and real happening, the accuracy and correctness of measurement have to be high.

If there is no measurement, control would not be efficient at all.

- Comparing Results with Criteria and Objectives

In order to compare the achievement or performance that is desired and what authentically happens, actions are necessary.

1-Historical / Relative / Engineering

2-Benchmarking

- Taking Corrective Action

To take every essential action for correcting things or improving them [14].

3.2.2 Effective Control

Since there could exist different controlling methods to be combined within an organization's activities, each control process has its own characteristics. The best controls in organizations are

- Strategic and results oriented
- Understandable
- Encourage self-control
- Timely and exception oriented
- Positive in nature
- Fair and objective
- Flexible

By the effective control's specifications mentioned above, the likelihood of appearing errors can be limited[12].

3.3.3 Types of Control

The control systems are designed based on the situation of the organization. The importance level of the units and departments also can specify the control system. Therefore, controlling methods and processes can be applied in different levels described below:

- Preliminary

This type of controls which are named the feed forward controls too, are achieved prior to starting a task to be performed.

Preliminary controls guarantee that the right paths are established and to reach the ends, appropriate and correct sources are accessible.

- Concurrent

This type of controls that, at times, are named steering controls, emphasize on everything that occurs in the procedure of the work. They check the current and continuing functions, processes and actions in order to assure of the correctness of everything which is being performed.

- Post action

This type of controls that are named feedback control too, happen at the end of completion of the control. Unlike activities and inputs, the emphasis of these controls is the final outcomes.

Regarding control, there are two expanded choices for managers.

1- In order to apply self-control, managers need people and depend on them.

2- On the other hand, they can act directly (externally) in order to control others' performance.

- Internal Controls

This type of controls makes the interested and motivated people able to apply self-control while accomplishing the expectation and needs related to a job. If the purposes and aims of a competent person would be obvious and understandable and supported by the suitable resources as well, the possibility of self-control would increase.

- External Controls

Controls of this type happen via personal monitoring and utilizing formal systems of administration [16].

4. CONCLUSION

In spite of the rapid developments in the world, the failures for surviving in organizations appeared increasingly since the period of competitive business environment started. A simulated model regarding failures occurrence could have settled in accident domino theories. They define the sequences leading to injury in construction sites. The theory consists of five sequences including the lack of control by management, personnel and job factors, unsafe act and unsafe condition as the central domino, accident, and injury. According to the updated accident domino theory the lack of control by managers is the main reason that causes injuries. The dominos in accident domino theories were replaced or labeled by the dominos suggested in simulated failure model resulted in new model. It means that the simulated failure domino theory could originate from accident domino theory. The simulated theory describes the organizational failure which is followed by errors. These errors arise from unsafe act and unsafe condition appearing due to the lack of control by management. Thus, controlling as one of the most important duties by the managers can play an important role based on the model of simulated failure domino (The new model) in preventing failures and proceeding organizations toward competitive advantages. One of the highlighted duties to perform the role in the best way is controlling the activities defined to be done in the system. The ways of controlling might be different. Each process might need a suitable control system. Therefore, there should be an appropriate controlling system within the organization ordered by management. The effective control system as well as the type of controlling system, depends on the different situation to be taken. The result of controlling within organizations can be appeared in the form of different benefits. The main benefit is to make sure or guarantee that the performance and actions depend on each other in all the organization. Therefore, the purposes are fulfilled and achievements are obtained. Moreover, the conformity will be assured and continued and preserved through some crucial regulations in the organization as well as through some strategies for continues improvements and profits.

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