

A Proposed Framework for Analyzing Organizational Failure

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Abstract

In analyzing failures in organizations, the researcher needs a framework that offers a methodical approach and different perspectives in which to fully understand the causes and implications of the failure event. The purpose of this paper is to present such a framework for analyzing a failure event in public or private organizations. This new framework builds upon a tri-level framework by Roberto (2000) introduced in his study of the 1996 Everest Expedition but offers more depth of analysis by combining several analytical approaches.

Roberto's (2000) framework offers three interconnected levels of analysis: individual, group, and organizational. On the individual level, cognitive limitations lead to poor decisions which are further exacerbated by the lack of psychological safety of the group members. The complexity of the organizational level then magnifies the effects from the first two levels in a feedback loop that eventually leads to catastrophic failure. As Roberto explains, the levels and their associated effects are not exclusive explanations for the failure but rather these levels and effects mutually reinforce each other in explaining the failure (p. 155).

Keywords

Organizational failure, cognitive biases, groupthink, organizational accidents

How Organizational Failures Happen

Before discussing the framework in detail, it is necessary to explain what organizational failure is and how it occurs. Failure can be divided into three categories depending on amount of intention present in the making the error. There are “unintended failures of execution” (Reason, 1997, p. 71) known as “slips, lapses, trips or fumbles” (p. 71). Reason (1990) categorizes these as skill-based errors (p. 62). Mistakes involve errors occurring from mental processes and can be of two types. “Rule-based mistakes” (p. 71) are the “misapplication of normally good rules, the application of bad rules, or the failure to apply a good rule (a violation)” (p. 71). “Knowledge-based mistakes” (p. 71) occur when solutions are composed in the middle of a crisis (p. 71).

The most common failures stem from rule-based mistakes and specifically violations. Reason (1997) defines violations as “deviations from safe operating procedures, standards, or rules”(p. 72) and further adds that violations can be “deliberate or erroneous” (p. 72). Violations can be placed into three categories. There are “routine violations” (p. 73) which is “cutting corners or taking shortcuts primarily in skill-based work” (p. 73); “optimizing violations” (p. 73) that occurs when people violate a rule for the “thrill” (p. 73); and “necessary violations” (p. 73) in which it is believed that it is necessary to violate the rules to complete a job (p. 73).

Now that organizational failure has been defined, each of the incorporated analytical approaches will be discussed. First is Reason's (1997) organizational accident framework. Then, the theories of Nutt (2002) and Dorner, et al. (1996) will be discussed. Finally, Hart's groupthink model will demonstrate how to analyze failures resulting from

the team level. The concluding section pulls all these analytical approaches together in the general framework.

Reason's Organizational Accident Framework

Reason (1997) has developed an “organizational accident framework” that aids understanding of how large-scale failures occur in organizations. This framework consists of three parts: the “damaging and injurious hazards” (p. 2); the “vulnerable people or assets” (p. 2); and the “barriers and safeguards” (p. 2) that protect the people or assets from the hazards. An organizational accident is caused by a “rare conjunction of a set of holes in successive defences [sic], allowing hazards to come into damaging contact with people and assets” (p. 11). Reason refers to this as an “accident trajectory” (p.11). Under this framework, failures occur in either two ways. There are “active failures” (p. 10) which happens at the “sharp end” (p. 10) or control end of the system, has a direct impact on safety, and immediate adverse effects (p. 10). Active failures are easily observable and are often the failures that are specified in policy fiascos. The second type of failure -“latent conditions” (p. 10) - come from “strategic and other top-level decisions made by governments, regulators, manufacturers, designers, and organizational managers” (p. 10). Latent conditions can exist undetected for years, influence the corporate culture, and create the “error-producing factors” (p. 10) that can combine with the active failure and current circumstances to bring about the organizational failure (p. 10). Latent conditions are inevitable and they can arise from good decisions as well as poor decisions (p. 11).

Bad Decision Making on the Leadership Level

Nutt (2002) observes that over half of all decisions fail and that two out of every three decisions use bad decision processes (pp. 3-4). According to Dorner, et al. (1996), the steps for ideal decision making concerning a complex system are: "[f]ormulation of goals" (p. 43); "[f]ormulation of models and gathering of information" (p. 43); "[p]rediction and extrapolation" (p. 43); "[p]lanning of actions, decision making, and executions of actions" (p. 43); and "[r]eview of effects of actions and revision of strategy" (p. 43). But, decision makers often fail to follow these steps for several reasons for several reasons. They act without analysis, fail to anticipate side-effects and the long-term outcomes, and assume that the "absence of immediately obvious negative effects meant that correct measures had been taken" (p. 18). Decision makers also may become blind to "emerging needs and changes in the situation" (p. 18) and are "prone to cynical reactions" (p. 18).

Formulation of goals is the first step in decision making according to Dorner, et al. (1996) and failure in this stage essentially dooms the rest of the decision making process. The major difficulty is that in complex situations, "contradictory goals are the rule" (p. 65) and thus decision makers must pursue multiple goals. This greatly increases the complexity because there will be interrelationships between the goals and their criteria that may be hidden by intransparency along with their effects (p. 51). Sometimes, this complexity will lead to "goal inversion" in which the decision maker gives up one goal to pursue the exact opposite goal (p. 67). Also, multiple goals may contain a mixture of positive goals and negative goals. By their nature, negative goals are vague and thus may be harder to determine when they are fulfilled (p. 50).

After the goals have been formulated, the decision maker then begins collecting information and analyzing the problem in order to generate alternatives. Ideally, the decision maker should engage in a "discovery process" where they objectively study the situation and the facts surrounding it (Nutt, 2002, p. 45). There are four phases to the discovery process: analyzing the problem, exploring various options, selection of an option, and monitoring the consequences of the option (p. 160). In failed decisions, the decision maker actually engaged in an "idea-imposition process" where they come to the conclusion first and then search for supporting evidence (p. 45). In the idea-imposition process, the search is limited, few ideas are examined, and the affects are usually not monitored (p. 49).

Hart's Groupthink

Hart (1990) observes that there seems to be a paradox in Janis' groupthink regarding the antecedent condition of high group cohesiveness. Under Janis' theory, group members either censor themselves or are pressured by other group members and the group leaders to stifle dissent and support the decision (p. 61). But Hart counters that it is more likely that a tightly-knit group would make better decisions in his examination of group decision making (p. 31). Hart also argues that cohesiveness is not necessary for groupthink (p. 43) because "anticipatory compliance", or " 'giving in' before manifest pressure is exerted" (p. 59), can substitute for high cohesiveness (p. 59).

Along with anticipatory compliance, Hart (1990) also adds the concept of "deindividuation" to groupthink theory. Deindividuation is defined as "(a) feeling of indistinguishability from one's environment, (b) lowered self-awareness and self-

evaluation, and (c) decreased concern about the evaluation of other people" (p. 66). As a result of deindividuation, the victim has difficulty in monitoring their behavior and of others, loss of their sense of ethics, no self-correction on their behavior, lack of foresight, and lack of concern over future punishment (p. 71). Essentially, deindividuation lowers the group member's ability to protest the decision based on personal ethics and to substitute the group as "their main point of reference rather than their individual perceptions, opinions, and interests" (p. 69).

In addition to the concepts of anticipatory compliance and deindividuation, Hart (1990) also considers the effect of intergroup rivalries on groupthink which is something that Janis did not consider in his original groupthink theory (p. 101). Hart found that more dissimilar the goals of related groups, the more likely there will be conflict (p. 101). Intergroup rivalry is especially prevalent in government because of the constant fighting over policy leads to factionalism and the creation of highly-cohesive groups (p. 152). In examining the effects of intergroup rivalries, Hart proposes three propositions. The first is that "larger the intensity of intergroup conflict, the higher the cohesiveness of each of the competing groups" (p. 108). The second proposition is that the high cohesiveness of the group is dependent on the members' sense of the collective threat and that the group is the "most appropriate manner of mitigating or countering these threats posed by outgroups" (p. 109). The third proposition is that group members will be more likely to accept strong leadership based on the intensity of intergroup rivalry (p. 109). Thus, intergroup conflict can also lead to the groupthink symptoms of "[i]llusion of invulnerability" (p. 109), "[b]elief in the inherent morality of the group" (p. 109), "[c]ollective rationalizations" (p. 110), and "[s]tereotyping" (p. 110).

Intergroup rivalry has profound effects both within the groups and between the groups. As noted above, each competing group tends toward groupthink (Hart, 1990, p. 106) while at the same time stereotyping rival groups and discouraging communication and cooperation with other groups (p. 106). Winning groups experience increasing cohesion and thus groupthink is reinforced (p. 106). Losing groups either try to deny the loss, look for external scapegoats, or blame internal conflicts (p. 106). Groupthink in losing groups may also increase because of urge to recoup losses and save face (p. 106). As can be determined from the above, intergroup rivalry is a strong and continuing motivator for groupthink.

A fourth concept that Hart (1990) adds to groupthink theory is "entrapment" (p. 88) which is defined as "a decision-making process whereby individuals escalate their commitment to a previously chosen, though failing, course of action in order to justify or 'make good on prior investments' " (p. 88). Entrapment, a result of groupthink (p. 96), results in the institutionalizing of long-standing programs because of administrative inertia, political support, and the continuation of tools that have outlived their usefulness (p. 93). Along with the effect of entrapment, a secondary effect of groupthink is "risky shift" (p. 73).

Hart (1990) observes that the effects of groupthink decisions are extremely risky (p. 73) because groupthink breeds overconfidence and minimizes the consideration of risk (p. 84). This leads to the group choosing more risky decisions than if each member had individually chosen a course of action which is the definition of risky shift theory (p. 73). Risky shift theory can push "policy decision groups" (p. 84) toward "hyper-activism in unrealistic and dangerous projects" (p. 84) or "continued inaction in the face of serious

dangers" (p. 84). So, in Hart's revision of Janis groupthink theory, a group often chooses an extremely risky decision and then stays with that decision due to entrapment.

Organizational Failure Analysis Framework in Detail

A general model of how failure occurs in government can be constructed using elements from the preceding sections. The model has three levels (leadership, team, and organization) with culture, communication, and accountability aiding in the latent conditions creation process. Each level helps to generate latent conditions individually or in concert with the other layers and thus the conditions for a failure to occur build up over time. Each level also has the ability to generate the active failure that, in conjunction with the latent conditions, causes the eventual major failure.

The first level, leadership, generates latent conditions through the interaction of the leader's or leaders' cognitive biases which lead to a bad decision. This may be further enhanced if the leader's or leaders' use the idea imposition process to further force the bad decision. The second level, team, will often respond to pressure from the first level by engaging in groupthink and thus either risky shift or avoidance will occur thereby creating more latent conditions. Rivalry between other teams on this level will also encourage groupthink as teams compete with each other for the attention of the leadership on the first level.

The third level, organization, is the level where hazards are prevented from harming the organization's assets by a series of defenses (technical, policy, and administrative). The latent conditions flowing from the first two levels erode the defenses in several ways. First, rules and safety procedures may be ignored by decisions

from either the team or leadership levels. Second, the first two levels may decide to emphasize production over protection and thus the defenses are underfunded and lack resources. Conversely, the first two levels may over emphasize protection and increase the complexity of the defenses to the point they are unworkable and may even encourage further rule breaking. The fourth effect is the use of temporary fixes to handle near-failures. Over time, these temporary fixes may become permanent and thus generate unforeseen latent conditions of their own. As the latent conditions continue to build and erode the defenses, the chance for an active failure to breach all of the defenses grows.

Culture, communication, and accountability transmit and enable the effects of the latent conditions. Culture determines the relationships between the three levels but is especially significant with the first two. A culture that encourages leaders to make quick decisions without examining their biases and then impose these decisions onto demoralized teams will produce a greater number of latent conditions than a culture where leaders are encouraged to reflect on their decisions and teams feel secure enough to openly question decisions. Communication is also vital because it is how culture is transmitted along with how the decisions from the first level are perceived and further transmitted to other levels. Accountability's role is that of determining the quality of decisions. If a decision maker knows that they will be held specifically accountable for the results of their decision, they are more likely to care in crafting that decision for the good of the organization. Otherwise, the decision maker may make a decision for their own gain without regard to damage it may cause the organization. Thus, good culture, communication, and accountability act to minimize the number of latent conditions and help to reduce the occurrence of active failures while bad culture, communication and

accountability can greatly increase the number and severity of latent conditions and active failures.

Using the Organizational Failure Analysis Framework

Thus, using this framework, the researcher can develop a rich and detailed case study analysis of an organizational failure event that details how the leadership decisions, team decisions, and organizational complexity interacted to bring about the failure.

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