

# Learning from Failure and Factors Influencing Failure

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## Abstract

Failure is a ubiquitous and inescapable element of life, thus sooner or later we will all have to deal with failure-possible scenarios. It is impossible to avoid failure and blunders, even with stringent procedures, employee education, and/or the implementation of the latest technology. This holds true even for persons who are incredibly successful and well-respected, since most effective leaders have more professional failures than triumphs. Their capacity to learn from their mistakes is a key factor in determining how successful they are, and this has led to, learning from failure becoming a more popular topic for research into organisational learning and individual development. In this article, we have compiled many studies how to learn from failure effectively and the variables that may affect this process.

## Keywords

failure at work, learning from failure, mental toughness, psychological safety

## 1 The concept of failure

The experience of failure at work is a complex phenomenon. In the psychological literature, there is no single definition of what failure is (Newton et al., 2008). According to Cannon and Edmondson (2001), failures are usually described as unintended deviations from behavioural norms, objectives, processes, norms, real values, or truth. The idea of failure is not exclusive to the workplace. Failure is likely to have a similar psychological impact, whether at work, in a relationship or in any other situation where success is essential for identity and self-worth. Its occurrence reflects a combination of the person's specific abilities and limitations and the particular characteristics of the circumstances (Newton et al., 2008). Failure occurs gradually, often as a result of conflicting evidence being available. It entails accepting on a personal level that one is unable to produce the expected results and managing criticism (Newton et al., 2008).

Failure is defined as a disturbance that prevents the completion of a task or the achievement of a desired goal, in line with Tucker and Edmondson's (2003) conceptualisation of failures and problems. Failure is typically defined as deviations from expected and planned outcomes (Cannon and Edmondson, 2001). This includes both avoidable mistakes and unavoidable bad outcomes of risk-taking and risk-exploration. It also includes failures in communicating with others, such as misunderstandings and disagreements.

It has been found that businesses often fail to notice small mistakes that often lead to large, significant failures, such as misunderstandings and not fully understanding the thinking of others (Cannon and Edmondson, 2001).

Interpersonal conflict is another type of failure, where the process stops because people continue to hold conflicting and irreconcilable views (Edmondson, 1996). Major and minor failures are often closely related in practice. Lack of understanding can increase the chances of organisational failure, as the Mars probe example shows (Pollack, 1999). Similarly, in hospitals, failure to ask for help or to question the decisions or actions of others can lead to medication errors (Edmondson, 1996). Failure to openly discuss errors, problems and disagreements within a given specialty or position can lead to inadequate outcomes as well as other errors (Dougherty, 1992).

The research of Newton, Khanna, and Thompson (2008) provides the most comprehensive definition of failure, defining it as an experience in which: (a) performance is an integral part of the individual's identity and the sense of self-worth that comes with it; (b) the individual feels personal responsibility for the result obtained; (c) failure to succeed has significant consequences in psychological, professional, and/or interpersonal domains; and (d) personal failure has personal consequences.

These requirements suggest that the circumstances that predispose to failure have particular characteristics. These are circumstances in which one has expectations and hopes, in which one's capabilities are challenged, in which one feels a sense of responsibility and control over achieving desired outcomes (Newton et al., 2008).

Consequently, these situations serve as a personal evaluation of one's knowledge, skills, and abilities. These criteria also emphasise the subjectivity of failure and error. The criteria for failure in the workplace and the experience of failure are influenced by an individual's dispositions (Newton et al., 2008).

## 2 The stages of failure

Experiencing failure can be difficult. Failure inevitably affects self-image, sense of self-efficacy and self-esteem. Therefore, healthy, and often unhealthy mechanisms for regulating and maintaining self-esteem are activated (Newton et al., 2008). People interviewed by Hyatt and Gottlieb (1988) experienced predictable phases of shock, fear, anger and blame, shame, and despair after a failure. Slocum, Ragan and Casey (2002), based on in-depth interviews with people who self-identified as having experienced significant failure in the workplace, found that managers who had experienced failure went through stages often associated with grief: denial, anger, negotiation, depression and acceptance. In this section, we draw on the research of Slocum and colleagues (2002) to illustrate the stages of grief and failure through a specific example, highlighting the similarities between the two processes.

### 2.1 Denial stage

When a terminally ill person is confronted with bad health news, they go into a phase of denial. They refuse to accept the diagnosis and may even deny the existence of the terminal illness. Even if the patient suspects that the diagnosis was correct, he or she will ask for a second examination in the hope that the first conclusion was wrong. Denial serves as a buffer between the unexpected, shocking news and the patient's understandably distorted self-image. It gives the patient time to pull themselves together and, over time, to mobilise less radical and regressive psychological defences (Kubler-Ross, 1974).

The leader is often left to evaluate a situation in which he or she has made a mistake. Leaders who fail may experience and go through the same denial process, but even more strongly, denying their personal responsibility. On the other hand, since the 'diagnosis' of the situation is often

made by the leaders, they have to learn how to act as the 'doctor' of the employee. It has been observed that during the denial stage, employees make statements that attribute their failure to external factors, essentially adopting a secretive, suspicious attitude. This reinforces the notion that poor performance is more likely to be attributed to external factors. But these external factors alone do not contribute much to poor performance (Slocum et al., 2002).

### 2.2 Anger stage

When the first stage of denial can no longer be sustained, feelings of anger, rage, envy and resentment take its place. Once the patient reaches the anger stage, denial becomes obvious to all. The patient recognises the problem but still sees it unrealistically. He or she will blame the doctor, workload or family responsibilities for the late diagnosis. The patient's anger will spill out in all directions and be projected almost arbitrarily onto others (Kubler-Ross and Kessler, 2005).

The same syndrome is evident in the statements of the failed leader. Unfortunately, the anger stage shows the most regressive dysfunctional behaviour in beleaguered leaders. They have moved beyond the denial stage and now blame colleagues for their own failures. They perceive the company's shortcomings as diminishing their once idealised selves (Slocum et al., 2002).

### 2.3 Negotiation phase

The third stage is the negotiation stage. In the case of a terminally ill individual, this stage occurs when others (friends, family members, etc.) finally convince the individual that he or she is ill and that steps must be taken to overcome the illness. However, the individual has not yet acknowledged or accepted the seriousness of the condition. When terminally ill patients agree to receive only partial treatment, a new period begins. Other doctors are consulted and the treatment recommended by the most trusted doctor is chosen. The bargain is to seek a postponement. It should include an offer of a reward for good behaviour and an implicit promise that the patient will not ask for more if the request is granted. Procrastination is a paradoxical combination of denial of time and events with an implicit acceptance of inevitability (Kubler-Ross and Kessler, 2005).

Similar behaviours can be observed in unsuccessful leaders. This behaviour is the beginning of a partial recognition of the truth, exemplified by a cooperative and adaptive attitude. Ineffective leaders can be energetic and inventive in this phase because they are now aware that the

company is at risk and that prompt action is required. At this point, they are beginning to acknowledge responsibility, but they have not yet accepted it. Few bargaining leaders seek help from impartial colleagues or fail to take difficult decisions. Instead, they remain isolated, distressed, and deprived (Slocum et al., 2002).

### 2.4 Depression stage

As terminal patients enter the stage of depression, they experience a loss of self-esteem. The same process was observed (Slocum et al., 2002) for leaders. This could be exacerbated by job loss due to persistent absenteeism or incapacity to function. The leader needs to express their grief and is appreciative of those who advise them not to be sad.

When they enter this phase, they may make up all sorts of excuses for missing appointments that they never missed before. They avoid office and meeting engagements by traveling out of town. In order to keep the business viable, enthusiastic subordinates are entrusted with an increasing amount of day-to-day decision-making authority and responsibility. This is the most critical phase for the company, as the majority of strategic decisions are postponed, delayed, or taken prematurely to alleviate tensions in the corporate culture or the concerns of board members. Often the company lacks an active and capable leader (Slocum et al., 2002).

### 2.5 Acceptance stage

The terminally ill individual eventually reaches the acceptance stage. Accepting the inevitable outcome, he or she reaches a state of physical exhaustion, weakness, pain, and helplessness. He or she is willing to obtain assistance from any source (Kubler-Ross and Kessler, 2005).

In contrast, most failed leaders may not get to this point due to an unwillingness to take responsibility for their own and the company's failures. They are often unable to emotionally move out of a phase of denial or anger. They simply wait for the board or shareholders to act (Slocum et al., 2002).

## 3 Factors contributing to the probability of failure

The study of Slocum et al. (2002) is 22 years old. It is relevant but the limitations of its conclusions ought to be acknowledged, as it does not examine the role of other factors (i.e. individual factors) in influencing the process. Failure at work is caused by a combination of internal, external, and cultural factors. Without being exhaustive, the Fig. 1 shows some possible factors.

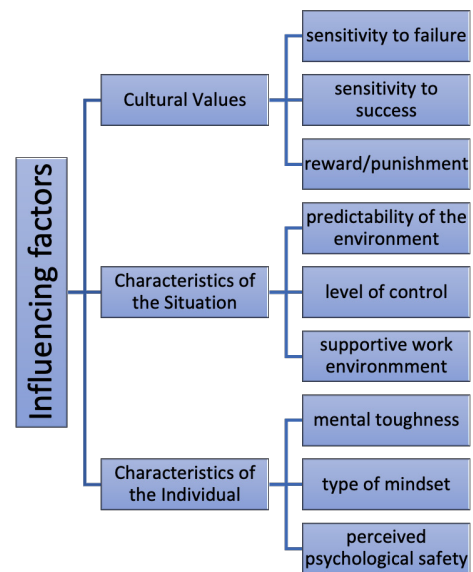


Fig. 1 Some possible factors influencing the occurrence of failure

### 3.1 Cultural values

Cultural differences in individuals' responses to success and failure have received considerable attention in recent years, and a few studies have been conducted comparing East Asian and European individuals (Heine et al., 2001; Kitayama et al., 1997; Hess et al., 1987). East Asians are more sensitive to failure than success, whereas Europeans are more sensitive to success than failure (Heine et al., 2001; Kitayama et al., 1997). This is also demonstrated by Hess et al. (1987) examination of parents' reactions to their children's performance. Their findings indicate that East Asian parents tend to minimise their children's achievements and emphasise their shortcomings, while American parents do the opposite. They asked parents what they would say if their children brought home unusually high grades. More than half of Chinese mothers said they would devalue them by setting even higher standards, while the majority of the European mothers said they would praise or reward their children.

### 3.2 Characteristics of the situation

Regardless of an individual's strengths and abilities, failure at work is inevitable in some cases if the individual is not in full control of the situation (Newton et al. 2008). Successful leaders from the past can face significant obstacles in a rapidly changing business environment. In their case study of the causes of Marks and Spencer's financial decline, Mellahi et al. (2002) explain the complex relationship between external changes in the retail market and internal management problems. Without the effect of the evolving business environment,

the limitations of management strategy would not have emerged. Meanwhile, external challenges would have been more effectively addressed in the absence of management problems. Greiner et al. (2003) investigated the impact of individual and organisational fit on success or failure by presenting a model that predicts whether a CEO will be able to successfully lead a strategic transformation based on the fit between CEO characteristics and the characteristics of the organisation and the market.

### 3.2.1 Supportive work environment

A review of more than 18,000 articles published between 2000 and 2010 on the impact of social relationships on health (Tay et al., 2015) found that studies have shown that our relationships with others make us healthy and happy (Robles et al., 2014; Slatcher, 2010) and that individuals' overall life satisfaction is more influenced by their relationships than by their job, income or even physical health (Campbell et al., 2013). If our wellbeing and happiness are so strongly influenced by our relationships, what role can they play in helping us cope with and overcome difficulties, failures or mistakes at work?

Organisational support theory and social exchange theory suggest that employees who perceive high levels of organisational support feel obligated to repay the organisation with positive attitudes and behaviours (Eisenberger et al., 1990). Consequently, perceptions of organisational support lead to enhanced employee performance in a variety of ways, including task and contextual performance (Riggle et al., 2009). Access to information, resources, and rewards can reduce insecurity and defensiveness within the work group, making it easier to discuss mistakes and other failures (Edmondson, 1999). A supportive work environment can encourage employees to believe they are being treated fairly, so they are less likely to be punished for admitting or drawing attention to mistakes (Cannon and Edmondson, 2001).

### 3.3 Characteristics of the individual

Some individuals are more prone to fail than others. Feather (1966) hypothesised that individuals with a high fear of failure are less likely to strive for achievement and therefore less likely to fail.

People are more likely to fail if they are willing to take on challenges that test their abilities, have uncertain outcomes, depend on their actions and require psychological effort to achieve. Self-esteem and self-efficacy are likely to be important mediators of willingness to take such risks. In

fact, research shows that individuals with high self-esteem and self-efficacy have characteristics that are likely to lead to success, even in risky situations. Individuals with these characteristics are more likely to believe in their own success, to make more sustained efforts, and to persevere in the face of adversity (Bandura, 1977; McFarlin et al., 1984).

#### 3.3.1 Mental toughness

Mental toughness is a well-known but not uniformly defined concept. It is commonly used as a 'shorthand' explanation for why some individuals perform well under constraints while others seem to falter (Crust and Clough, 2011).

Clough and colleagues (2012) developed a model and, more importantly, a measurement of mental toughness. Rather than basing their model solely on psychological skills, they attempted to build on an existing, well-validated model, Kobasa's (1979) Hardiness. Kobasa defined hardiness as a personality style or pattern characterised by continued excellent health and performance under stress. According to her, the emotional, cognitive, and behavioural responses of resilient individuals provide a buffer against adverse life situations. Clough et al. (2012) categorised mental toughness as four interrelated but independent factors: (1) Control: individuals with a high score on this scale feel in control of their life and their environment. They are able to exert more control over their environment and are more confident in complex or multitasking situations. (2) Challenge: this indicates the extent to which individuals see difficulties as opportunities. Those who see problems as opportunities actively seek them out and concern them as a means to self-improvement. (3) Commitment: This describes an individual's ability to effectively complete tasks despite encountering difficulties or obstacles; and (4) Self-confidence: individuals with high self-confidence have the self-assurance to perform tasks effectively that individuals with similar abilities but lower self-confidence may find too challenging. Less confident individuals are also more likely to be less tenacious and to make more mistakes. These factors can affect how individuals process and grow from failures.

#### 3.3.2 Psychological safety

Employees are often reluctant to disclose mistakes or failures because they believe that doing so will put themselves at risk (Edmondson, 1999). Mistakes and failures are potentially abundant sources of learning, but they can also create fear in employees (Carmeli and Gittell, 2009). Employees fear that others will perceive them as

incompetent and thus tarnish their reputation. In addition, they fear that their chances of promotion or pay rise will be jeopardised if their supervisor becomes aware of their failure (Edmondson, 1999). These factors encourage employees to remain silent, despite the fact that their silence may have a detrimental effect on the quality of their work, the performance of the group and the company, and the reputation of the company (Edmondson, 1999). Interpersonal risks essentially inhibit learning behaviour and reduce individual performance (Tyler and Lind, 1992).

Learning is only possible in an organisation that values honest communication about mistakes. When individuals feel respected and confident that others (co-workers and managers) will not hurt them (i.e. individuals feel psychologically safe), they are more likely to admit their mistakes, discuss them, reflect on the results, and ask for feedback and help, i.e. they are engaged in the learning process (Carmeli and Gittell, 2009).

The role of perceived psychological safety in team contexts has been studied previously; it refers to team members' belief that the team is safe when taking interpersonal risks (Edmondson, 1999). In a group, individuals experience psychological safety when they are confident that they can speak freely and are not inhibited by the possibility of reprimand from others and/or negative personal consequences (Nembhard and Edmondson, 2006). A psychologically safe environment is one in which people trust and respect each other (Edmondson, 2004). Perceived psychological safety is also associated with improved performance as a result of knowledge sharing (Argote et al., 1990; Edmondson, 1999).

#### 4 Learning from failures

Early research findings encouraged managers to learn from the experience of previous crises to improve their ability to deal with critical situations (Nystrom and Starbuck, 1984). These studies explored the concept of learning from failure. Scholars have noted that learning from organisational experiences plays an important role in reducing the rate of subsequent accidents and incidents (Haunschild and Sullivan, 2002), reducing the risk of organisational failure (Baum and Ingram, 1998), enhancing organisational reliability, and achieving various organisational outcomes such as service quality, adaptability, innovativeness, and productivity (Argote et al., 2000). As a result of this research, there has been an increased interest in studying learning from failure (Baumard and Starbuck, 2005; Cannon and Edmondson, 2001, 2005; Tucker and Edmondson, 2003).

Cannon and Edmondson's (2001) definition of failure is deliberately broad, encompassing different types and degrees of failure, as they suggest that learning opportunities lie in both minor misunderstandings and major failures. Furthermore, they observe that the amount or significance of learning is not necessarily proportional to the size or magnitude of the failure. Obviously, learning can result from major disasters such as the introduction of a high-profile product that is rejected by the market or the introduction of a new technology that cannot be made to work in the intended environment. However, important lessons can also be learned from the discovery of a minor communication failure in a professional relationship, and such seemingly minor failures can contribute to largely avoidable major failures (Cannon and Edmondson, 2001). For example, the loss of the Mars probe was caused by a simple communication breakdown between US and British scientists over the metrics used to calculate weight and distance (Pollack, 1999).

According to Cannon and Edmondson (2001), the presence of two capabilities increases the likelihood that organisations will learn from their mistakes. First, members of the organisation must be willing and able to take risks, which necessitates the failure of some organisational endeavours. Second, they must be able to confront failure without covering it up. Furthermore, traditional attribution theories assume that those who are most likely to learn are those who can attribute failure to personal and controllable factors (Weiner, 2000).

According to interviews with individuals who have experienced failure, the lessons learned can be grouped into three broad categories: a stronger and more resilient sense of self and self-worth, a stronger commitment to fundamental personal values and attitudes, and the enhancement of specific competencies (Axelton, 1998; Diller, 1995; Hyatt and Gottlieb, 1988). These findings are presented in more detail below.

##### 4.1 Stronger and more resilient sense of self and self-worth

Failure challenges an individual's self-image and self-worth (Newton et al., 2008). Individuals base their expectations of success on an assessment of their own abilities and set goals and undertake tasks according to these expectations. According to Baumeister (1989), each person has an 'optimal range of illusions' - a slightly exaggerated assessment of his or her own abilities which, if kept within a small range, can have a number of positive effects.



Failure may indicate that this self-image has problematic deviations from reality. Failure provides the information needed to bring one's self-image back into line with reality. The fact that those who have failed cite subsequent humility and self-awareness as a factor in their future success highlights how crucial this process of re-framing is (Axelton, 1998; Hyatt and Gottlieb, 1988).

#### **4.2 Stronger commitment to fundamental personal values and attitudes**

Failure, like post-traumatic growth, can be a powerful catalyst for reassessing personal values and priorities (Tedeschi and Calhoun, 2004). Failure can highlight the importance of simpler things in life, such as friends, family and health (Newton et al., 2008). It is possible that self-esteem can detach from meeting external performance standards. A greater appreciation of one's own resilience may result from an understanding of one's ability to tolerate failure. The realisation that people are often kinder and less judgmental than one thought, that the effects of rejection are not as severe as one imagined, and that life goes on, can all contribute to a stronger sense of freedom after overcoming failure (Savitsky et al., 2001).

#### **4.3 Enhancement of specific competencies**

Scholars who have studied failed leaders argue that failure often represents a specific blind spot in individuals' self-evaluation, situational judgements and interpersonal skills (Dotlich and Cairo, 2003; Finkelstein, 2003). A leader may be forced to address issues that were previously invisible or may even have contributed to success through failure, offering powerful incentives and often incontrovertible data (Finkelstein, 2003). There is evidence that performance enhancement is facilitated by ex-post reviews (Ellis et al, 2006).

### **5 The procedure of gaining knowledge from failure**

The process of learning from failures involves identifying, discussing and analysing failures and dealing with conflicts and disagreements in a productive way. The identification of failure is an essential first step in the process of learning from failure, in that discussion and analysis are needed to understand and communicate relevant lessons, and the ability to manage conflict is necessary when discussion of failure involves controversy or disagreement about its causes (van Dyck et al., 2005).

#### **5.1 Attempting to determine failure**

If mistakes are covered up, there will be no opportunity to learn from failures. Organisations encourage employees to communicate honestly when they fail on the job. Effective identification of failures requires the identification of failures as early as possible, which enables efficient and cost-effective learning and minimises wasteful investment of time and other resources (Cannon and Edmondson, 2001). A successful outcome of this stage is the timely identification of failure to minimise the negative impact on self and others and maximise the ability to make effective decisions (Newton et al., 2008).

#### **5.2 Failure discussion and analysis**

At this point, it is the individual's responsibility to manage the psychological consequences, and open communication is one of the most important tools (Newton et al., 2008). In the same way that uncovering failures before they become compounded, embedded in larger systems, or irreversible is a necessary step to achieving high quality, applying one of the central tenets of the total quality management movement is to turn the analysis of failures and failures into positive action, valued for its contribution to overall performance. This assumes that high quality is the result of an organisational system that actively seeks out problems and determines how to effectively solve them in the future (Leape, 1994; Ryan and Oestreich, 1991). Van Dyck et al. (2005) approach to error management, rather than focusing on the complete elimination of errors, assumes that human errors cannot be completely eliminated. Therefore, it seeks to address both errors and their consequences (Guchait et al., 2012). Organisations practising error management are primarily concerned with identifying how errors occur and then understanding how to organise systems and processes to prevent them in the future. Organisations that practice failure management encourage employees to communicate openly when they experience failure in the workplace (van Dyck et al., 2005).

#### **5.3 Education**

Open communication not only allows for early detection and management of errors (Reason, 1990), but also for sharing knowledge about failures and developing error management strategies (Mathieu et al., 2000). In this case, employees can learn not only from their own but also from the failures of others (van Dyck et al., 2005).

A learning orientation can minimise the threat to self-esteem (Niiya et al., 2004) and reduce feelings of helplessness after failure (Erdley et al., 1997). There is evidence that a learning orientation focused on specific experiences can be improved, for example, by directing people's attention to lessons that can be learned from performance (Niiya et al., 2004). By encouraging a focus on what can be learned, a broader perspective can be conveyed and a sense of hope and optimism can be fostered, which counteracts negative self-evaluation and negative affect associated with direct experience (Newton et al., 2008).

## 6 Summary

In summary, the experience of failure and its effective management can play a significant role in the daily life of organisations. Effective management of failure provides employees with constructive feedback from supervisors and co-workers (Edmondson, 1999). Feedback provides individuals with the opportunity to change their course of action while gaining new knowledge about different types of failure situations and thus gaining a better understanding of the situations that cause failure (Edmondson, 1999). The insight that individuals can cope with failure can change their perception of their own resilience. Failure promotes the development of a new attitude to risk, including an understanding of what it means to take risks and

the recognition that there is often little difference between success and failure. The realisation that others are generally more understanding and less harsh in their judgements than we expected, that the consequences of failure are not as severe as we feared, and that life goes on can also provide a greater sense of relief (Savitsky et al., 2001).

At the organisational level, effective failure management can increase organisational effectiveness and trust if employees are confident that they will not be blamed, ridiculed or punished when failures occur (Edmondson, 1999). This leads to improved performance and increases organisational commitment. Despite the fact that the opportunity to learn through failure is the most useful and valuable experience for both employees and the organisation, experience shows that organisations do not take advantage of it because they do not consciously apply failure management tools and do not have the tools to effectively manage the failures and their potential. In the future, it would be worthwhile for psychologists to develop more practical and solution-oriented tools to embed learning from failure in the culture of the organisation and in the toolbox of managers. In this way, managers and organisations will be able to support their employees to cope and develop effectively, which will ultimately guarantee the growth and successful survival of organisations in the marketplace.

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