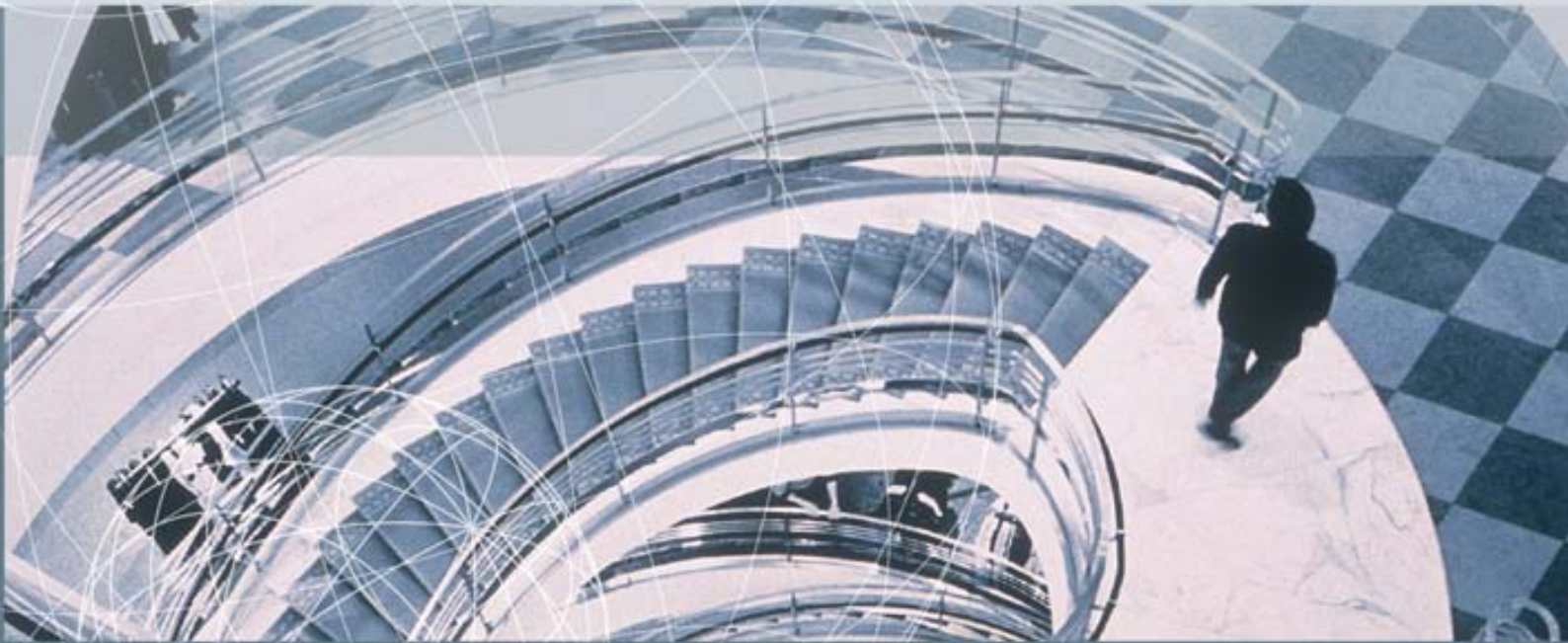


Is Organisational Learning a Myth?



Written by:

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The Advanced Institute of Management Research (AIM) develops UK-based world-class management research. AIM seeks to identify ways to enhance the competitiveness of the UK economy and its infrastructure through research into management and organisational performance in both the private and public sectors.

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- Working in cooperation with leading international academics and specialists as well as UK policymakers and business leaders...
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- Engage with practitioners and other users of research within and beyond the UK as co-producers of knowledge about management

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Current AIM research projects focus on:

UK productivity and performance for the 21st century.

How can UK policymakers evaluate and address concerns surrounding the UK's performance in relation to other countries?

National productivity has been the concern of economists, government policymakers, and corporate decision-makers for some time. Further research by scholars from a range of disciplines is bringing new voices to the debates about how the productivity gap can be measured, and what the UK can do to improve the effectiveness of UK industry and its supporting public services.

Sustaining innovation to achieve competitive advantage and high quality public services.

How can UK managers capture the benefits of innovation while meeting other demands of a competitive and social environment?

Innovation is a key source of competitive advantage and public value through new strategies, products, services and organisational processes. The UK has outstanding exemplars of innovative private and public sector organisations and is investing significantly in its science and skills base to underpin future innovative capacity.



Adapting promising practices to enhance performance across varied organisational contexts.

How can UK managers disseminate their experience whilst learning from others?

Improved management practices are identified as important for enhancing productivity and performance. The main focus is on how evidence behind good or promising practices can be systematically assessed, creatively adapted, successfully implemented and knowledge diffused to other organisations that will benefit.

Common sense suggests that organisations should learn from their successes and failures. Surely a project that turns out to be a great organisational success should provide useful information that increases the chances of future successes. Similarly it might be imagined that a venture that turns out to be nothing short of disastrous should become an example of what not to do, with the organisation taking the lessons from that failure and ensuring that such failure isn't repeated in the future.

If only this were true! In fact, as this briefing reveals, organisations frequently fail to see the error of their ways. Success creates straitjackets around organisations, wrongly shaping future actions and leading to failure. As for failures, organisational politics and the blame culture in many organisations prevent people from acknowledging failures.

Interestingly, this study found that managers applied different approaches to dismiss the prospects of learning from failures depending on whether the failure was large or small. Large failures remained unreported until it was impossible to conceal them. Then people blamed the failures on unusual circumstances or external factors. People saw smaller failures as having been inevitable because they didn't conform to the organisation's – and thus senior managers' – core beliefs. And if this rationale didn't stand up to scrutiny, people dismissed small failures as experiments that were bound to occur.

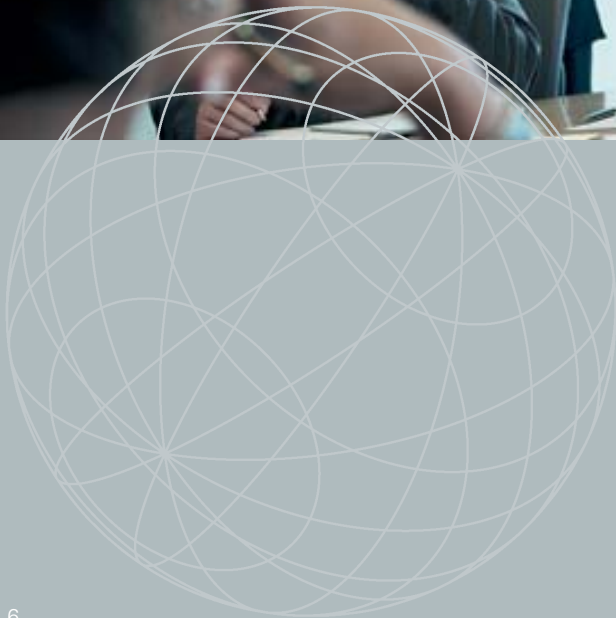
The unfortunate consequence of such ostrich like behaviour is that the company made similar failures repeatedly, often failures by the same managers.

We extracted a small number of important lessons from our research, for organisations that hope to learn from success and failure and to avoid the pitfalls revealed by our study.

- Benefits can come from linking the outcomes of ventures, projects and the like, to the personal rewards of those who manage them. Both financial and reputational rewards can be effective motivators. Obviously, the balancing trick is to motivate managers to seek improvements without inflicting such high penalties on the managers of failures that they block data gathering and analysis.
- Labelling a venture as an 'experiment' is a double-edged sword. Participants may lower the risks of disaster by hedging their bets on an experiment and they may be willing to analyse the outcomes of an experiment more objectively. At the same time, the hedging of bets may keep participants from exerting the extreme efforts that would turn an 'experiment' into a success, and the label 'experiment' may imply that people need not extract general lessons and may allow people to dismiss it as inevitable because of its 'experimental' nature.

Large failures remained unreported until it was impossible to conceal them.

- Be suspicious of efforts to explain failures in terms of idiosyncratic circumstances or external events. Such explanations surface after every failure, but they never appear after successes. Of course, every event in life has some idiosyncratic aspects and reflects some external influences. However, the mere occurrence of such effects is an insufficient explanation that leaves people and firms no better prepared for the future.
- Do not underestimate the cynicism or self-interest of participants in ventures. Managers in large organisations know that there is a high probability that their organisation will not hold them responsible for failures. External advisors are likely to recommend actions that serve their own interests, such as additional fees. To be practical, learning processes must deal with human beings as they are, not as we wish them to be.
- The few managers in our study who had participated in more than two failures seemed to express extreme confidence in their abilities to reproduce past successes. It may be that unlearning successes is a prerequisite for learning from failures.



Learning from success and failure – is it possible?

US academics Richard M. Cyert and James G. March first advanced the concept of organisational learning in the 1960s. Organisational learning, they said, involves changing goals and forecasts to reflect experience and current perceptions, adapting decision rules to suit circumstances, modifying goals to make them realistic, and searching where previous searches have succeeded. In particular, Cyert and March believed that people learn by analysing their situations and changing their behaviours voluntarily and that firms learn mainly by encountering problems rather than by experiencing successes.

Cyert and March's concept of organisational learning sparked a long debate about the nature and importance of organisational learning, and the roles of individuals in learning. There are four important elements to this debate.

One perspective on organisational learning is that it is essential to organisational survival and success in the face of changing environmental demands. However, while economic and social change does sometimes punish firms that fail to adapt, many firms have suffered precisely because they tried to adapt to environmental fluctuations that subsequently lasted for only brief periods.

Another view holds that adaptive changes by individual firms do not matter because they have negligible long-run effects on populations of firms: what matters are the behaviours that spread across many firms. It is, however, questionable whether populations of firms improve or merely change over time. Evolutionary pressures may not select high-performing firms, and firms' survival statistics look like the results of random processes.

A third facet argues that although learning may be essential for survival it creates no competitive advantages for the survivors. To confer strategic advantages, learning must be difficult, rare, and impossible to imitate quickly. A large firm that has an advantage over its competitors loses half of this advantage in three to four years on average, which suggests that competitors usually cancel out one another's advantages rather rapidly. However, firms do sometimes maintain advantages for many years in cases where competitive reactions develop slowly.

A fourth aspect of the debate asserts that the act or process of knowing does not afford a dependable basis for learning. If cognitive learning is already prevalent and effective, most managers should have accurate perceptions of their firm, the processes taking place, and what works and doesn't work. A majority of managers, however, have very erroneous perceptions of both their firms and their business environments. Thus, beneficial learning may depend at least in part on processes that reinforce successful behaviours and extinguish unsuccessful behaviours without relying on the accuracy of managers' perceptions.

Finally, feedback about performance may have either negative or positive effects on subsequent performance. Although feedback improves people's performance on average, in over a third of cases feedback actually decreases performance. Feedback has more positive effects when it focuses people's attentions on their tasks, and more negative effects when it focuses people's attentions on the people themselves. However, the effect of feedback depends on many contingencies. For example, organisations' core beliefs frame people's interpretations of feedback, and reactions to feedback involve political processes.

The study described in this briefing contrasts the outcomes of success with those of failure. Because there have been so few studies of learning from failure, we investigated how one large company dealt with fourteen failed ventures. Because the theory suggests that organisations react differently to small and large failures, we compared seven small failures with seven large ones.

Learning from success

In general, research about learning from success says that many firms improve their performance, but firms can over-learn the behaviours that they believe create success and become unrealistically confident that success will follow. As a result, the lessons drawn from success gradually turn into straightjackets that prevent firms from adapting to social and technological changes.

The information gathering they believe to be efficient may keep them from perceiving crucial changes.

Perhaps the most surprising discovery is that learning from repeated success makes future failure very likely. Long periods of continued success foster structural and strategic inertia, inattention and insularity. Learning eliminates activities that appear irrelevant. Firms become simpler, less aware of events outside their immediate domains and less capable of diverse actions. A focus on core competence and competitive edge, for example, while fostering success initially, eventually tends to make a firm more specialised and inflexible.

The same processes that firms use to capture their learning from successes also undermine their long-term viability. To reproduce successes, firms create behavioural programs and buffers, and concentrate information gathering and communication to make them efficient. Fearing that success might not continue in a changed environment, firms attempt to block environmental changes. Instead of welcoming or embracing change, firms demand rationalisation, predictability and reliability.

However, firms have limited abilities to block environmental change. The information gathering they believe to be efficient may keep them from perceiving crucial changes. When they eventually do perceive these changes, commitments to existing programmes and to realising their predictions may keep them from responding promptly and effectively. Top managers are often out of touch with current customers, suppliers, and technologies, and since they generally react to serious threats by centralising control, responses to crises frequently aggravate the crises, rather than alleviate them.

Learning from failure

Cyert and March asserted that firms are much more likely to change their behaviours in reaction to failures than in reaction to successes. Actual or expected failures, they said, may cause a firm to change its goals or its forecasts about outcomes. If these changes are not enough to increase the prospect of success then the firm searches for new alternatives. Thus, the prospect of failure stimulates behavioural innovation.

However, the idea that failure stimulates innovation contrasts with research findings from studies of individual people, which indicate that painful outcomes generally stop existing behaviours, but without stimulating efforts to change. Research has shown that individuals are reluctant to share knowledge about the mistakes they have made. One reason for this may be the nature of organisational politics. People fear that blame attaches to those who participate in failed ventures, and that managerial hierarchy reacts to failures by seeking and punishing culprits.

Equally it is often difficult to determine whether a sequence of events adds up to success or to failure, as organisational members slant such interpretations to their own benefit. Some people seek to take credit for successes; some people try to draw advantage from failures.



The magnitude of failure is also a factor in whether or not there is any likely learning outcome. Organisations find it very difficult to deal with large failures. This is because incumbent managers are reluctant to make significant changes that threaten existing power structures, preferring instead to tinker with strategy and to make limited modifications. For wholesale change, it may be necessary to ditch much, if not all, of the senior management, as was the case, for example, when CEO Henry Juskiewicz took over the legendary but troubled guitar manufacturer Gibson in 1986.

The research

As the evidence about actual outcomes of failures, large and small, is sparse, we decided to expand the data pool by investigating 14 strategic failures that had occurred at Eurocom (EC) [a pseudonym] over a period of two decades.

EC grew from a domestic telecommunications firm with strong governmental support into a global firm with many investors. During the period of our study, EC's revenues grew from less than €15 billion to more than €35 billion. Following European Commission actions in 1987, the study period also saw deregulation, competition, new technologies, and increased uncertainty.

All European telecommunication companies had to meet the challenges posed by new entrants, aggressive pricing, rapid technological change, service diversification, and a share-price crisis in 2001-2003. Many companies overestimated the demands for telecommunication services, and experienced failures very similar to those discussed in this article.

Since inexperience is a familiar cause of failures in young organisations, we avoided studying large failures that involved inexperience. The managers we observed had long experience in their industry, had forged sound relationships with outside experts, and had stable customers. Most of them also acknowledged, when they undertook the ventures that led to failures, that previously successful strategic postures had become uncompetitive.

Largeness and smallness are always relative concepts: from some viewpoints, the small failures we discovered are not truly small, but only seem so in comparison to the large failures, and from the viewpoint of top managers of a very large, multinational corporation. They do not look small in comparison with the scale of an average business venture, and represented major responsibilities for those who managed them. In principle, even our small failures might have damaged their managers' future careers.

Our research received considerable help from executives at EC, which in itself shows such managers' desire to learn from their firm's failures. Twenty EC executives contributed information for this study, nine of them via repeated long interviews. In addition to interviews, one author had access to the company's decision logs and archives, which yielded data recorded years earlier. Such data help to counteract retrospective rationalisations.

This level of managerial participation and data access strengthened the study by providing multiple perspectives and more reliable data about events that took place years ago. We compiled data about seven large failures and a roughly matched sample of seven small failures.

The table overleaf describes the 14 failed venture cases, according to their size and categorisation pairings.

Characterisations for the categories came from various studies of organisations and strategies:

- *Attempted growth into a new domain* without adequate skills or experience might lead to failure;
- *Transferring an old model to a new situation* might result in failure if the transfer was inappropriate;
- *Product launches* can increase uncertainty and mobilise resources with low predictability of success;
- *Designing New activities that are projections of core beliefs* can be a version of *Escalating commitments to losing businesses*;
- Projections of *Over-estimated demand* have also led to failures where organisations bore heavy fixed costs;
- And *Resurgence of a core belief* came from the similarity of the 2003 Columbia Space Shuttle disaster to the 1986 Challenger tragedy, a similarity that highlighted the role played by persistent beliefs.

The four earliest ventures, all of which took place before deregulation, were TV Text, PageMe, Sat1 and Sat2. There was little overlap of personnel across these ventures as they occurred in different divisions and business units. Because the cases spanned 23 years, the ventures occurred under different teams of top managers.

Case studies

Small failures

Attempted growth into new domain	PlayOn-Line EC wanted to develop new content for its Internet activities. EC decided to buy PlayMe, a publisher of video game software that was for sale in France.
Transferring an old model to a new situation	Net TV A man with experience in television joined EC and wanted to create 'Internet television'. He became the protégé of EC's CEO, who had experience in supermarkets and who liked the idea that EC would distribute images.
Product launch	TV Text A national government asked EC to develop videotex because of its hightech image combined with its potential to reach a large portion of the population. Videotex promised to help the nation appear forward looking in telecommunications. Moreover, it would support a network that would inform the public about national data.
New activity reinforced by core beliefs	Truck Tracker EC decided that there could be a market for truck supervision and scheduling. A small box with a satellite dish was developed that could be placed on the top of a truck. It was very innovative because it was before the Global Positioning System was available in Europe. Although the antenna was very expensive compared to the cost of a truck, the technology was superior to existing technologies, and EC decided to launch it.
Over-estimated demand	TV Fax The plan was to place fax machines in every home and to use these machines to display text on television sets. The head of international affairs asked equipment makers to produce one million fax machines.
Resurgence of a core belief	PageMe EC developed a trendy paging system for young people that could transmit brief text messages. The product was launched without EC really believing in it, and potential customers did not see themselves as users of 'paging'. The service was seen as too 'young' for professional users (doctors) and too austere for the young. This small failure was quickly rationalised as reinforcing the core belief that transport mattered more than content.
Escalation of commitment in a losing business	Sat 1 EC's goal was to dominate the market for data for corporations. Since the extant network was not digital, EC bought a satellite. The forecast was a potential market of 350 clients, but the antenna stations proved to be too expensive for the demand, so EC decided to scale back to 100 antennas.

Large failures

Gercom

European countries were issuing only a few licenses for mobile telephone service and small companies had favoured positions to receive licenses. Expecting to be unable to win a licence in Germany, EC acquired one-third of a German mobile-telephone operator.

Wireless Application Platform (WAP)

France Telecom had had great success with Minitel, with 6 million customers in France as early as 1987. Executives from France Telecom who joined EC wanted to imitate this success with mobile phones. But the system could only transmit data unless latency times were very long, and WAP was slow to connect.

GoMobil

EC built GoMobil networks in three cities. These networks targeted the bottom end of the mobile telephone market. They were mobile but customers actually had to stop walking or moving to make their calls, because they were dependent on local antennas.

E-Business

A core belief of the telecommunication business is the desirability of interconnections between people that are reliable. The e-transformation and the middleware players surprised powerful telecommunication incumbents, who could not believe that an 'application layer' could be more meaningful than a reliable connection. They launched a new e-business activity that relied heavily on external partners and was loosely coupled to core business units.

Queen

A series of deals built up a stake in Queen, a large cable operator in Britain. EC bought an English company because they believed in the convergence of networks and multimedia content.

Overlooking the rise of messaging

In the early 1990's, Some R&D engineers came up with the idea of installing instant messaging between telephones, but the project was shot down by disbelievers. Thus, the company failed to develop messaging, when it had a unique opportunity to become a world pioneer.

Sat 2

EC undertook satellite broadcasting in competition with two existing systems that had 80% of the market. EC chose to broadcast analog signals, not digital, and EC's CEO declared: "*There will never exist a numerical television*". EC signed a contract with a small outsider, named Cube, but when Cube wanted to expand to a critical size, EC refused. Sat 2 was launched with 4 satellites.

Small failures

	What was wrong?	Management
PlayOn-Line	Free on-line games had difficulty selling advertising. There were struggles for control. Revenues from traffic benefited the parent firm, but the unit's profits plummeted.	Top managers paid little attention because the venture was so small. EC perceived games as not being serious business, the company's sales being twice the world market for games.
Net TV	The technology was inadequate and revenues were very low. The firm tried to import the TV model, but failed to adopt innovations.	This venture had strong support from the two top managers who created it. Many other managers were sceptical.
TV Text	The cost of this experiment was horrendous (\$40,000 per household), and the bandwidth was narrow. Customers did not use it.	The venture had little oversight because it was seen as imitating an activity that had succeeded in Britain.
Truck Tracker	Equipment cost over \$5000 per truck. Geographic coverage was incomplete.	Top managers ignored warnings of problems because they wanted to prove that trucks could be tracked from the sky.
TV Fax	The tests of technology were conducted in very artificial conditions. Equipment makers, eager to enter the new domain, made unrealistic cost estimates to ensure that the experiments received authorisation.	A new telecommunications domain was emerging, and management would not allow staff new to EC to explore this new domain.
PageMe	PageMe was successful for a short time, but the marketing targeted young people rather than professionals, and the firm concluded that messaging had no market outside professional boundaries.	The activity was low within the corporation, without any involvement by the CEO's staff, so commitments escalated without top managers' noticing.
Sat One	The cost of each station was thirty times the estimates, plus the cost of a satellite, so the project had to be scaled back drastically. Sales never exceeded the cost of three stations. The desire to be part of a new era led the firm to exchange roles with its main competitors.	EC's top managers decided to continue because they wanted EC to remain a leader in all types of communications. They ended up broadcasting images, and letting competitors broadcast data, contrary to their core belief about EC's proper domain.

Discovery**Learning**

Executives did not acknowledge that the cost structure imposed on the unit made profits unlikely even with a growing audience. The on-line activity went bankrupt.

Failure clearly reinforced the core belief that EC should emphasise hardware and avoid software and content. One manager left EC and another moved to a different unit.

After six months, the venture had lost four times its initial investment.

Failure was interpreted as showing again that EC should not be involved in content. The two managers left EC.

Signs of trouble were dismissed, but the losses were too large to ignore.

Failure was interpreted as proof that imitation is a bad idea; technologies should be developed in-house, it was said.

Many engineers issued warnings, especially about the lack of competitiveness with emerging technologies.

The development group learned the importance of getting data about customers' reactions.

Test customers did not want to use their televisions to display messages. The technology never entered the market, and the venture was liquidated.

The manager was promoted to a senior position. The project was seen as idiosyncratic. The experiments were considered a successful proof that EC could enter this new domain. EC did later enter this domain successfully.

The financial losses were large. Operations were managed with rigour and sound procedures, but managers lost sight of the overall market. The managers in charge were very disappointed.

The project was seen as idiosyncratic. The failure was seen as showing EC ought to focus on voice rather than text for its mass consumption market. Executives later thought that the project had failed because it had been ten years in advance.

Managers reported their concerns about bandwidth, geographic coverage, and the number of stations.

EC saw this project as idiosyncratic, and dismissed the failure as a cost of learning about satellite communications. The firm later became a leader in TV broadcasting, but then yielded its position to competitors. EC ignored lessons it might have learned from Sat 1 when it undertook Sat 2.

Our research questions the degree to which organisations learn from small failures. Within EC managers tended to dismiss small failures that challenged EC's core fundamental beliefs – beliefs such as those about what processes worked and what didn't, what were good markets to be in and what were not.

The research shows a pattern of reciprocal reinforcement and a deep reluctance to challenge core beliefs. Small failures tended to reinforce core beliefs, and these core beliefs in turn meant that over time there was a consistent pattern to the small failures. Managers agreed to try experiments that did not challenge their core beliefs, and, accordingly, the failure of these experiments reinforced and spread the core beliefs. Managers interpreted the small failures as demonstrating the foolishness of attempts to deviate from the firm's core beliefs.

Small failures allowed current or emerging trends to be synchronised with the core beliefs. This ideological flexibility protected members of the organisation from having to revise their beliefs and perceptions. The result was that EC became more vulnerable to serious crises.



When managers were unable to explain failure in terms of core beliefs, when the explanation didn't fit with their cosy view of the world, they dismissed small failures as 'unique', 'idiosyncratic', 'nonreplicable', 'experimental', 'trial' or 'exploratory' but not as a valid alternatives or challenges to the core beliefs.

This idea of experimenting largely eliminated the opportunities to test assumptions. Managers overlooked any evidence that contradicted core beliefs. Top managers having strong personal interest in maintaining core beliefs either chose experiments likely to sustain those beliefs or assigned threatening experiments to people who were likely to fail. The managers of failed experiments moved around the parent organisation, taking their learning to places where it became irrelevant, so the organisation lost sight of lessons that it might have drawn.

Three quotations from participants in small failures

“NetTV could not have been a success. This company [EC] is just allergic to content. They tried everything they could, even borrowing the media-mogul language and attitude. We ended up speaking of ‘programs’, ‘channels’ and even ‘prime time’! But that never convinced the Board of the mother company. Far from it.”

“There was this idea, at that time, we are talking 20 years ago, that no telecommunication venture in this world could exist without EC leading the engineering. The idea that another company could start tracking trucks through the skies, without us, literally put down everything we had believed in. No matter the cost, it had to be ours.”

“TV Fax was such an incredible story! They had this whole idea that telecommunications would be everywhere, and that a screen, a keyboard and a network could replace any home appliance. And that was back in the early 1980s. So, when they discovered that people did not like reading ‘faxes’ on a TV screen, they did not blame their technology. The more it was rejected, the more they were discovering grounds to go further.”

Large failures

	What was wrong?	Management
Gercom	A management fad and EC's investment bankers encouraged EC to take on excessive debt. EC purchased a stake in Gercom at a high price inflated by a telecom bubble. The German government issued more licenses than promised. Gercom went into bankruptcy when EC refused to invest further.	Only three managers knew the details of the arrangement. EC's new CEO reported to shareholders that the investment had had little scrutiny. Plummeting stock prices activated key stockholders, who demanded that EC change its governance processes and tighten its control over large ventures.
Wireless Application Platform (WAP)	EC 'built incredible expectations in the mind of the press.' Connection times were very slow, but the service was launched despite this deficiency. EC lost credibility as a provider of mobile data services.	EC was seen as a telephone company, and EC's top managers wanted a more avant-garde image. They dreamed of putting the Internet on mobile phones.
GoMobil	EC, with analog experience, assumed that analog would be superior. Another technology (GSM) came to dominate because GoMobil required them to stop walking or moving to make calls. Involvement with GoMobil slowed EC's move to GSM.	Since EC saw GoMobil as a forecast of the future, it treated costs and revenues lightly. Managers saw GoMobil as displacing previous technologies, and they overlooked an entirely new technology that rendered GoMobil obsolete.
E-Business	EC had focused on communication transport; it had neither experience in supplying 'business services' nor personnel capable of developing them. Managers of this unit outsourced the actual services to external partners, who took all of the potential profits. IBM was a formidable competitor.	Consultants and investment bankers convinced EC that managers' expectations were outdated. The consultants misjudged EC's capabilities. EC's efforts were managed by engineers, who wanted a single service package that would suit all customers.
Queen	EC's managers were eager because EC had missed two previous opportunities to enter this business. The financial arrangements were very complex, and EC's managers had overlooked the rights of minority stockholders, which gave control to a CEO who was not from EC.	The CEO was visionary and charismatic and EC's top managers gave him 'too much' credibility. EC's top managers wanted EC to have capabilities in all technologies – cable, radio, satellites, etc. – and Queen seemed to fit EC's core beliefs.
Overlooking the rise of messaging	This proposal was seen as a derivative of TV Text, which had failed. The proposed colour screens appeared to be too expensive. No other company was offering or using messaging.	The designer of EC's prevailing service believed in cost cutting, lean management, and limiting service to 'essential functions'. These did not encompass messaging.
Sat 2	A promise of government subsidy led EC to scrutinise the project less carefully than usual. One of two major competitors expanded more quickly than expected and cut its prices. EC chose to broadcast analog signals, which left them in a dead-end when digital showed superiority.	EC's top managers believed that EC should be capable in all communications technologies. They assumed that EC was technically superior to its competitors. They expected Sat 2 to replicate what they perceived as the success of Sat 1.

Discovery

Gercom's CEO showed reluctance to disclose data on performance, but EC discovered that the CEO had lied about Gercom's profitability. EC's stock price fell when all telecom stocks declined, forcing EC to rethink its investment.

Managers issued warnings about slow connection times. Signs of trouble were dismissed on the ground that 'industry analysts' were predicting the Internet would soon be on mobile phones.

Signs of trouble were dismissed on the ground that GoMobil was an experiment. Accounting statements gave the impression that GoMobil was profitable, but these statements omitted the costs of building new infrastructure.

Early signs of poor profitability were discounted because this was a new domain. But the unit was closed after only one year, on the ground that such activities should be distributed throughout all divisions and not concentrated in a stand-alone unit.

Queen's stock price had been in freefall. This drop was a surprise to EC, as the CEO had provided no performance data. But EC has not yet acknowledged that this venture has failed. But EC's book losses are tremendous.

Top managers perceived messaging as being used by an exclusive customer group whereas the prevailing service was designed for mass usage.

Three satellites were technologically obsolete and the financial write-offs were very substantial.

Learning

EC's CEO and CFO resigned under pressure, and the Board was reorganised. EC created a unit to screen potential acquisitions. The failure was blamed on poor governance processes. Afterward, all initiatives for new ventures were seen as threatening, even sinful.

EC had similar slow-connection problems with several projects but learned little from them. EC continued to try to follow its traditional technical standards despite emergence of disruptive new technologies.

EC learned that it needed to learn how to handle digital technologies in addition to analog. EC then invested heavily in digital technologies and became a leader in them. EC also learned how to develop a network of antennas.

Managers in the unit realised that their efforts to develop communication content were inconsistent with EC's focus on communication transport. EC merged all of the units that were delivering business services. Some managers from this unit went into the merged unit and others left EC.

Managers with long tenure saw Queen as another demonstration of the difficulty of being 'European' and the risks of geographic expansion. EC decided to change the way it screens and controls external acquisitions.

EC realised later this proposal had been 15 years ahead of competition. EC never really recovered from this missed opportunity, and excellence in messaging became an obsession that fed a 'not invented here' syndrome.

EC discounted the implicit lessons that might have been learned from Sat 1. EC 'learned' that the company should focus on terrestrial technologies.

The research shows that learning from large failures was even less likely than with small failures. When asked what they learned from large failures, EC's managers interpreted every one of the large failures as having predominately external causes. Typical explanations included: "exceptional or historical conditions" or "society was undergoing large, dramatic change". The larger the failure, the more external causes people saw.

The managers of EC saw no relationship between new large failures and the earlier ones even though the same top managers supervised many of these ventures. Managers felt that the larger failures had occurred in ventures to which the firm had weaker commitments, over which the firm had weaker control, or depended on programmes to which the organisation's members had weak personal commitments. The large failures also concerned very long-range projects that built up slowly over time. This meant that managers had changed, so the projects had dispersed stakeholders and few managers (or none) who felt responsible for them. The ventures' costs rose over time and amid other events. Thus, both external and internal stakeholders needed a long time to digest and understand the large failures.

Core beliefs played a smaller role in the large failures than in the small ones. Many of the large failures were efforts to respond to trends that were sweeping the world. Each of the large ventures had the backing of beliefs that EC adopted at that time – this explained why the venture was a "good thing to do" – but most of these beliefs were imports from EC's environment. Consequently, managers rarely mentioned EC's core beliefs when they explained why they thought the large ventures had failed, but they often mentioned influences in EC's environment.

Three quotations from participants in large failures

“The whole idea of Gercom really came from external financial advisors and our CFO at that time. There were only four external members on the Board, and they did not really understand the technical justification at all. When it came to the financial instrumentation of the deal, they understood even less. This was a deal that would take at least five years in the making, and ten years in reaching profitability. It’s not unusual in our industry, but really it makes it difficult to tell if somebody failed or not after the facts. In this case, it’s pretty obvious. We lost 15 billion Euros.”

“The E-Business division really started impulsively. Every senior manager has heard how IBM did so well with small businesses, that Microsoft was transforming the whole business world through electronic intermediation. It seems that not being part of this game was just like admitting to being a dinosaur. And then, there were those people from planning who were buzzing us all the time, saying that ‘e-transformation’ was less than 1.5% of sales. The failure was to have jumped on this business in the first place, listening to external hype.”

“The whole story of our WAP Unit was one of technical stubbornness. Guys from marketing really alerted us soon enough that with these lags and delays in connection times, there is no way they could produce any marketable services. There was a lot of dispute on these measurements. And a lot of arguing. I believe they disregarded all these reports, because the internet was the new frontier, and we ought to be there. Well, everybody kind of knew that this protocol had nothing to do with the future internet technologies, but it was like a step forward anyway.”

Pervasive problems in both large and small failures

The research revealed some common problems across both small and large failures. Particularly noticeable were problems related to the reporting of failures.

The managers in charge of the various failures reported difficulties during early stages of their development in only eight out of the 14 cases studied. In these cases, the reports concerned faulty management practices (e.g. incorrect control practices, faulty distribution of power), lack of operational results or outcomes, technical problems, or the existence or emergence of a better performing product or technology in the market.

In all eight cases, top managers paid little attention to the reports, finding a variety of reasons for discounting the bad news; they believed that the current technologies were transitory, or they noted that other firms engaged in similar projects were not performing any better. The larger the venture, the stronger were the reasons to keep on trying and escalating efforts; the smaller the venture, the stronger was its perceived relationship to the organisation's core beliefs. The higher the expectations for a project, the more reluctant were managers to question its ideological foundations.



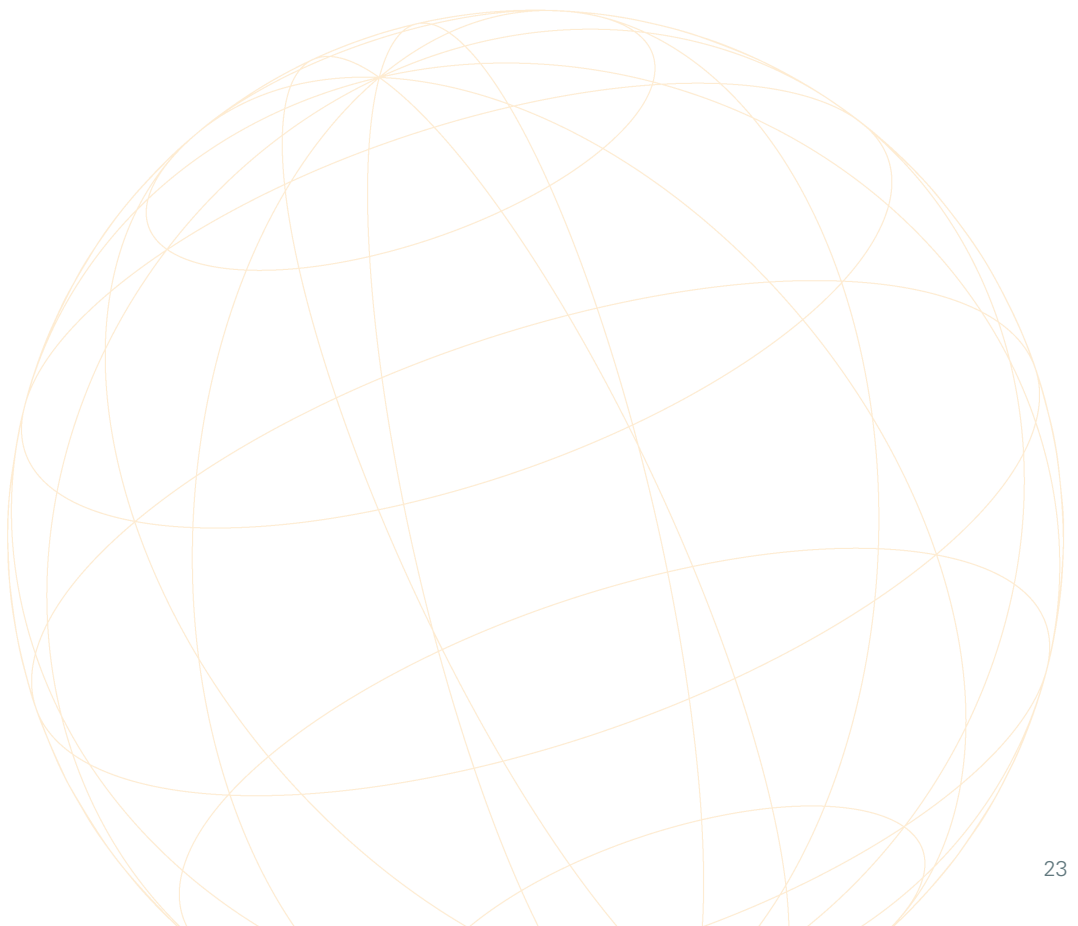
The reported problems tended to concern implementation issues – efficiency problems, lack of coordination, and more generally, routine learning. Where there were problems that seemed ‘out of the box’ and difficult to explain, these were not reported, even though these were the very problems that might have cast doubt on the basic premises underlying ventures and might have warned of larger failures to come.

When the failures became apparent, EC had difficulty distinguishing between vital and trivial problems. People tried to find justifications for the solutions they had previously adopted or ones they were willing to adopt in the near future. Small failures that accompanied, but did not expose, the development of larger failures, tended to reinforce core beliefs.

Even when the results from initial experiments fell below expectations, managers portrayed them as assurance that the ventures could resist confrontation with facts. Managers then used comparisons with competitors to discount financial losses. Thinking their ventures were losing no more than competitors were, managers tended to exaggerate small, immediate successes and to disregard long-lasting flaws that had already emerged.

External pressures came from a variety of sources including investment bankers, the State, and even management fads. These pressures not only induced managers to undertake ventures in which they did not believe, they relieved managers of responsibility for the ensuing failures, and so reduced the responsibility to learn from the failures. In four of EC’s largest failures, consultants and investment bankers recommended pursuing actions that brought them additional fees.

When the failures became apparent, EC had difficulty distinguishing between vital and trivial problems.



A failure to learn

The evidence from the research is not encouraging. It suggests that firms learn little from either small or large failures, (or successes). EC learned surprisingly little from the failures we investigated.

- Managers generally explained away **large failures** on the basis of general trends in society or the involvement of outsiders. They said the large failures certainly, were not their fault but had idiosyncratic and largely external causes; the larger the failure, the more idiosyncratic or external the cause. The large failures occurred in ventures to which EC had weaker commitments and over which the firm had weaker control. Managers saw no relations between new large failures and previous ones, even when the same people had managed more than one failed venture.

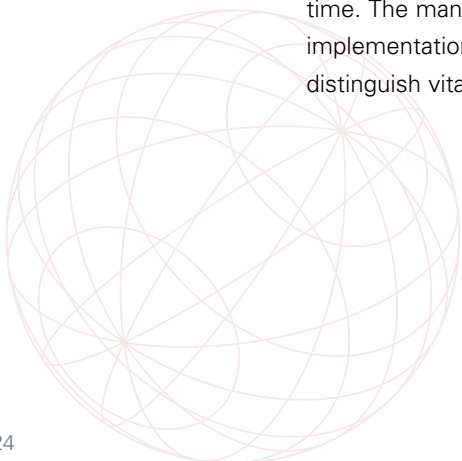
In EC, large failures were commonly concealed until they could no longer be hidden. Because the large failures developed over very long periods, their high social and monetary costs were not immediate. Failures that managers later saw as large seemed to be only complications while they were happening, so the large failures were always past events and accountability was always after the event.

- EC's managers interpreted **small failures** as demonstrating the foolishness of deviating from the company's core beliefs. When such interpretations seemed implausible, they described the situations as idiosyncratic or experimental, as if experiments normally fail. Manoeuvring for political advantage often took precedence over the substantive strategic issues, and managers used their vows of allegiance to the EC's core beliefs to justify failures in which they participated.

As a result, post-mortems into small failures did not seriously challenge the correctness of core beliefs. Some individuals who did question the core beliefs received demotions. So, at EC at least, moderate failures did not draw attention to potential problems or stimulate searches for possible solutions to these problems.

- Like many other large firms organised on a divisional basis, EC is a **political system** in which senior managers compete with each other to control resources and to gain political power. Managers can win as individuals even when EC loses, or they can lose as individuals even when EC wins.

One result seems to be poor communication. In only 8 of the 14 ventures were any problems reported at all. The managers of small ventures did not report problems that might imply the ventures had been ill-advised. The managers of large ventures did not report problems that they thought might be hidden over time. The managers who did report problems portrayed them as involving only implementation issues. As a result, it was very difficult for senior managers to distinguish vital problems from trivial ones.



- It seems that **organisational learning from success or failure is unlikely** in a large, divisionalised firm. Managers resist analyses that might hold them responsible for errors or oversights or failed promises. As a result, they conceal the causes of failure. In addition, there are plenty of opportunities to draw the wrong inferences from experience. Managers find it easy to explain both large and small failures as having idiosyncratic or external causes that no one could have foreseen, and to rationalise their personal actions in terms of their firms' core beliefs.

More generally, **organisational learning**, which appeared so benign and desirable when Cyert and March first pointed to it, can be dangerous or ineffective. The learning that follows success can mean sticking with a source of past success until that success becomes a straitjacket that constrains the organisation and becomes a source of failure. The learning that should follow failure often does not happen, and when it does, it often teaches the wrong lessons.

It seems that most organisations could benefit from paying more explicit attention to learning, whether it is taking place, and what lessons it is teaching, as well as to the processes they have created to make it happen.



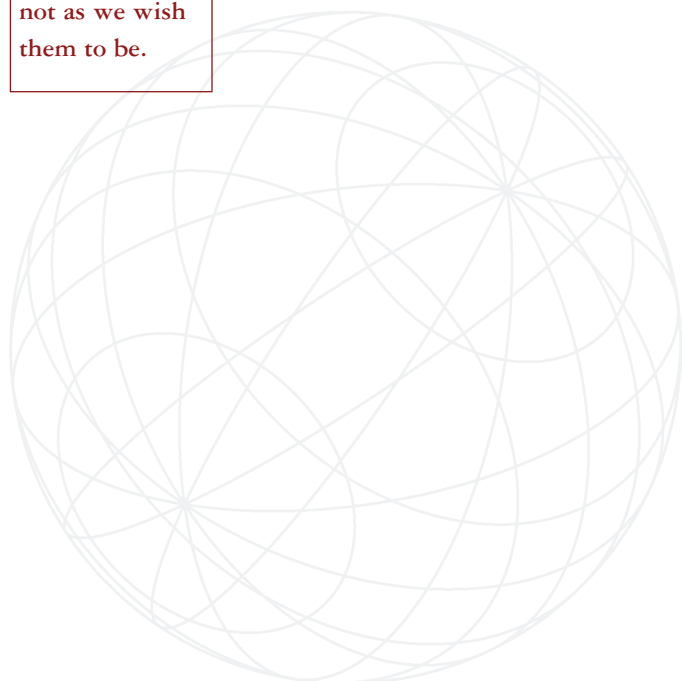
In the leading global law firm Wachtell, Lipton, Rosen and Katz, organisational learning from success and failure did take place in a way that benefited the organisation. The partners' rewards depended on their firm's profits so partners had reason to improve profitability. Further, a core group of senior partners placed high value on learning, made consistent efforts to extract lessons, and held sufficient political power to apply what they learned. In other words, the top managers of Wachtell, Lipton, Rosen and Katz were both intellectually and financially motivated to learn. Although the intelligence and pride of EC's managers motivated them to learn, their personal monetary rewards did not depend on EC's profitability and explicit analyses of failures could be damaging to their careers and reputations.

important lessons for practitioners

Although EC may have learned little, other organisations may be able to profit from EC's failures:

- Benefits may come from linking the outcomes of ventures to the personal rewards of those who manage them. Both financial and reputational rewards can be effective motivators. The balancing trick is to motivate managers to seek improvements without inflicting such high penalties on the managers of failures that they block data gathering and analysis.
- Labelling a venture as an 'experiment' is a double-edged sword. Participants in an 'experiment' may lower the risks of disaster by hedging their bets and they may be willing to analyse the outcomes of an 'experiment' more objectively. At the same time, the hedging of bets may keep participants from exerting the extreme efforts that would turn an 'experiment' into a success, and the label 'experiment' may imply that people need not extract general lessons.
- One should be suspicious of efforts to explain failures in terms of idiosyncratic circumstances or external events. Such explanations surface after every failure, but they never appear after successes. Of course, every event in life has some idiosyncratic aspects and reflects some external influences. However, the mere occurrence of such effects is an insufficient explanation that leaves people and firms no better prepared for the future.
- Do not underestimate the cynicism or self-interest of participants in ventures. Managers in large organisations know that they have high probabilities of escaping responsibility for failures. At least two of EC's failures involved questionable accounting practices. External advisors are likely to recommend actions that serve their own interests, such as additional fees. To be practical, learning processes must deal with human beings as they are, not as we wish them to be.
- The few managers who had participated in more than two failures seemed to express extreme confidence in their abilities to reproduce past successes. It may be that unlearning successes is a prerequisite for learning from failures.

To be practical, learning processes must deal with human beings as they are, not as we wish them to be.



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