

## 3M

1. What were the core assumptions that shaped 3M's culture? What critical incidents in the organization's history can you relate these assumptions to?

Before McKnight entered the company, 3M started as a mining company which was a failure. These initial failures become critical for later success.

McKnight started with going directly to the costumers.

Waterproof sandpaper was their first successful product.

Another product was the marking tape which Drew developed after going to an autorepression.

Scotch tape and posted and the start were failed products.

These stories help fuels the employees and circulated beliefs and values, it can help to control employees.

Ordinary people can create extraordinary results. Motivated people can turn around the company.

They are matching tech to customer needs. They have a slogan "create a little sell a little", which fuels innovation that is a belief but also an important strategy.

Failure is being celebrated. There was a period where more successful products comes from failed products.

company norm: "While products belong to businesses, technology belongs to the company."

3M has perfected that art of giving away their control. We see that when they tell their employees that they should not take no for an answer. They balance the control and freedom with giving their employees 15 pct. Of their time to do anything.

2. What were the values and norms that reflected these assumptions?

Use 15% of their time on whatever they want. There is a norm that it is ok to fail.

They have a high level of trust. Knowledge sharing, as we see in the tripod shape.

A norm: anyone from the company can speak to anyone in the company. They have a structure that facilitates this kind of structure.

Appreciation and recognition. They circulate stories about each entrepreneur.

They have a grow and divide strategy: They will break up a unit to smaller unit, so the small units will innovate, and the bigger units will handle the older projects.

The structure in 3M is very organic.

There is high tolerance for failure.

Cooperation and collaboration (.

3. What were the visible artefacts in terms of management and information systems, HR practices, structure and work design?

“Dual ladder” they were able to have a normal job and besides that pursue a new idea. Here you can progress in the organization doing either normal job or a progress with your own idea.

Tripod system.

Circle of excellence that you can be invited to be part of. The scientists have a golden step award. 3M gives the entrepreneurs their own laboratory.

Work design:

Technical forum and an annual tech fair where they can exchange ideas. They have frequent retreats where the workers go away from work with each other and exchange ideas. The lab heads meet every month, that is how posted became a success.

Shensei Bank was missing structures to facilitate culture change. At 3M they have created structures that facilitates change and complement their culture.

25% of sales should come from product developed within five-years to fuel growth and innovation.

4. With the change the organization is facing, what contradictions and resistance to change do you observe in the organization? How is the organization attempting to address these contradictions and deal with the resistance?

Increase competition.

They created a strategic business group. The cost of development is very high for big companies.

The change 3M needs to do is,

Earlier they focused on freedom and now they focus more on already existing products and filtering projects. They have to reduce cost and limit the number of projects.

A challenge they face is to control and reduce cost in a culture which is based on freedom and flexibility

A challenge is now that people should not be allowed to disobey which they were encouraged to do before, this goes against their values. They solve this by using pacing programs. They had to pick out 12 projects and 10 out of these projects should be successful. They select the projects that was cheap to increase in volume. The persons who limit the projects is the researchers in the committee. Here you try to create some balance between freedom and control. This requires lot of dialog and interaction. People must believe this, and 3M have the structure to do this.

3M has a clear established history and experiences, and next communicated this through stories and then establish structures that complement the stories and can enable encouragement of the culture they want in the firm.

3M matches a lot of things in the Learning organization.

3M is a manufacturing company where a lot of chemicals are used which has caused some pollution and therefore some lawsuits.

SO 3M still has its issues.

3M Has adapted the links in time strategy, where they have different focus groups and goes with the group that has most success. Slide 27.

Looking at the S curve change, we see that in whitbread, honda and 3m (develop new products every five year).

### **Notes while reading**

#### **3M: Profile of an Innovating Company**

3M was almost universally recognized as one of the world's most consistently innovative companies. Fortune described it as "a kind of corporate petri dish that fosters a culture of innovation."

#### **The Beginning: Foundations of 3M's Values**

##### **The Founding Philosophy**

One pivotal event occurred in 1916 when McKnight, now the general manager responsible for sales and production, authorized the creation of a laboratory to deal with the continuing problems with 3M's sandpaper. Eventually, McKnight persuaded Okie to join 3M as the company's first dedicated product developer. The resulting patent-protected "Wetordry" waterproof sandpaper found immediate acceptance, particularly in dust-filled automobile plants and repair shops. Its success not only confirmed the value of research and experimentation within 3M, it also established product differentiation as the key to commercial success.

The experience, where an employee met with a client about a paint job, was significant not only in confirming that innovation was driven by matching technology to customer needs, but also because it represented the first step on a voyage of diversification that was to lead the company far from its simple abrasive and adhesive origins.

McKnight and his management developed an unshakable belief in the power of individual entrepreneurship. Organizationally, this belief was translated into what 3Mers described as "a climate that stimulates ordinary people to produce extraordinary performances."

##### **Post-War Growth: Leveraging the Capabilities**

What made the achievement unique, however, was the company's ability to do so while retaining the early legacy of technological innovation, market responsiveness, and institutionalized entrepreneurship.

##### **Expanding and Leveraging the Technology Base**

Externally, expanding product applications led to new customer needs that created new development opportunities.

Internally as well, the culture encouraged employees to recognize how existing products, processes, or technologies could be leveraged into new market opportunities.

The pace and scope of this development program was possible only because members of 3M's research community recognized the value of sharing their knowledge.

company norm: "While products belong to businesses, technology belongs to the company."

Technical Forum. The role of this body was to facilitate grass roots scientific communication across horizontal and vertical organizational boundaries.

Finally, they organized the Annual Technology Fair, a three-day internal event in which 3M's scientists showcased their latest findings.

Through these and other formal channels and forums, the company was able to maintain the vital networks of informal contacts that connected its scientific community. The relationships were strengthened by a strong norm that encouraged any company scientist to contact any other to discuss a problem or ask for advice or help.

### **Product Development: Linking Technologies to Markets**

3M did not think of itself as a “high tech” company, but rather as “a creative company that needs a high level of technology.” 25% of its sales should come from products introduced within the most recent five-year period.

exchange of ideas between employees in sales, manufacturing, and research would give the company “tripod-like stability.”

Another value that supported innovation and experimentation was management’s strong belief in supporting projects even when no large market potential was evident.

“make a little, sell a little.” This philosophy encouraged those with good ideas to pursue them,

They encourage freedom.

To develop and retain such “good people,” 3M managed its human resource practices in a way that ensured entrepreneurs were recognized and appreciated. The employees were able to further progress their career while pursuing their professional interests, “dual ladder”. Golden Step Award Program.

Stories were created about successful entrepreneurs so they could feel recognized.

This lattermost story is likely to be told by CEO “Desi” DeSimone, who would most likely reveal to his listener that it was he who tried to stop the project,

3M focus on having a management that is not destructively critical when mistakes are made. This would kill initiatives. when a project failed, those involved in it were not penalized, but were supported in their efforts to quickly move on to something new. They also spread stories of failed technologies.

### **Developing the Organizational Model**

As its portfolio of products and technologies grew, 3M found operations increasingly difficult to manage. In 1944, McKnight experimented with a new organization form by creating an adhesives division and giving a division general manager full responsibility for its operation. The experiment succeeded, and by 1948 he was ready to reorganize the entire company into seven divisions, each with its own research lab, production operation, and sales force. set stretching growth and performance targets to drive performance in the divisions.

### **International Expansion**

It was only after the court-ordered dissolution of Durex in 1951 that 3M began building its own overseas operations in earnest. Durex is a company that were created with other firms.

3M created an International Division.

### **3M at 75 Years**

William L. McKnight died in 1977 and was a spiritual leader.

First, economic slowdown and foreign competition were likely to slow domestic growth.

### **3M Under Lou Lehr (1980-1985): Building a New Base**

At the start he had a short term pressure. He also want more cross-unit coordination and a formal strategic planning

### **Redesigning the Structure**

One of Lehr’s first priorities was to assess management’s ability to deal with the consequence of the company’s institutionalized entrepreneurship—an ongoing diversification proces. 3M has direct access to 50 countries

The primary objective, to facilitate the development and diffusion of technologies across closely related divisions, creating fully-integrated, self-sufficient divisions.

stand-alone manufacturing divisions were created to concentrate scale and to focus on productivity and quality improvements. the Commercial Office Supplies Division developed as specialized channels delivering products from numerous 3M divisions to a focused market.

### **Formalizing the Planning**

“thought centers” gathering the strategic information on markets and competitors that became both an important input to the planning process and the basis for setting their performance measures.

The divisions were being measured against industry, market and competitive standards. “By focusing attention externally, and particularly on competitors, it jolted us out of our short-term, operational mentality. They were now cutting out their own businesses.

### **Boosting Technology Investment**

They entered the health care business. Lehr was a strong believer in the need to maintain and expand 3M's technological base. As a result, he wanted to increase substantially an R&D budget

But as development became more expensive and riskier, we needed the focus and discipline of the new structure and processes.

the Circle of Technical Excellence was created to recognize achievement through peer nomination. Lehr launched an ambitious program called “Cooperating for Growth” which aimed at changing the company's technically specialized sales forces into broad-based problem solvers able to provide links to 3M's full range of products.

### **Impact and Performance**

First half of the 1980's there were a crisis which had an impact on 3M. It was a worldwide recession and an increase in competitors.

### **3M Under “Jake” Jacobson (1986-1991): Imposing a New Discipline**

Jacobson thinks that there need to be some changes to the 3M's strategies.

### **Increasing Productivity and Competitiveness**

Jacobson wanted reduction in manufacturing labor content and manufacturing cycle time

Historically, our drive for profit and our preference for developing premium-priced products aimed at market niches meant that we were not comfortable competing on price. As a result, we never fully developed our manufacturing competencies. And when competitors followed us, we would refuse to confront them—it was always easier to innovate our way into a new niche.

Confronting the need to reduce costs and adopt more aggressive competitive strategies,

“We learned how to compete—how to focus on competitive objectives, not just internal projects.”

### **A More Disciplined Development Process**

Jacob also began to emphasize the need to convert such investment into a more effective source of competitive advantage.

he wanted the company to become more focused in its choice of project development, and faster in bringing new products to market.

division management created Action Teams composed of technology, production, and marketing specialists, and charged them with the responsibility of developing and delivering new products. company also began to adopt a more disciplined approach to defining, selecting, and funding projects.

So now, instead of running 100 programs as we did before, our division is focused on 12, from which we should have 10 successes.

credibility stemmed from the fact that it was a peer evaluation.

With the new pacing program, they were afraid that some of their freedom and flexibility was lost. They say that there are more motivation and morale issues today compared to 10-15 years ago.

### **Focus on Customers and Markets**

The new objective was to reinforce and broaden the role of specialized distribution units in selling products from multiple divisions through specialized channels such as office supply dealers, automotive body shops, or hospital purchasing offices.

### **Impact and Performance**

3M was named R&D Magazine's Corporation of the Year, and on his retirement, Jacobson was named Manager of the Year by the National Management Association.

The more they plan the more innovation will decrease. Their "divide and grow" approach seems to have been replaced by a reverse tendency to consolidate organisational units and specialize them by function

Some say that 3M relies on slow moving markets. 3M is not meant for rapid decisions and short product life cycles and tough management.

### **3M Under "Desi" DeSimone (1992): Preparing for the Future**

Desi said he would try to combine all three of his predecessors' abilities, motivation, bring the best out from each individual, disciplined focus.

He believes autonomous actions is still the key.

Senior management's role is to create an environment where people can learn 3M's way of operating. It is a culture where innovation and respect for the individual is still central. It all depends on trust and communication.

It is about balancing freedom and control.

He regrouped the firm from four sectors into three. And continued with five years target for a reduction in unit manufacturing cost and refocused Lehr's quality initiative as a program committed to total customer satisfaction.

The most dramatic new challenge he set for 3M was to raise the ante for faster, more efficient product development.

After 1989 an annual grow rate was 5% and earnings remained flat. The new decade was not a success for 3M.

Increased R&D funding.

As the firm became larger and more diverse some stated to question 3M's ability to maintain its unique ability to growth through innovation.