

# CORPORATE CREATIVITY

*The Winning Edge*



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***Pradip N Khandwalla***

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*To  
Those inspired managers  
who consider management  
a Creative Art*



## PREFACE



Every morning we read two sorts of news—the bad news about mishaps, terrorism, deadly strife, and avoidable suffering; and the exciting news about how this wondrous world of ours is changing technologically, socially, economically, politically, and culturally. Can we manage creativity effectively to diminish the tide of bad news? Can we harvest the exciting news about changes and innovations to make living better in some broad sense? I believe this is possible. Management of creativity can be a means to enlarge the human good. It is a great new frontier of management.

The context is right for management creativity. Competition, technological change, the revolution of rising expectations, the knowledge society—all are rising to a crescendo. Those creative visionaries who can see and seize opportunities will thrive; those who are petrified by the adversities will perish. It is, therefore, imperative that we understand better the nature of creativity in the workplace, and equally important, learn to harness it effectively in our organizations. This is what the book sets out to do.

This book, like its companion book *Lifelong Creativity*, has grown out of my earlier work on creativity titled *Fourth Eye: Excellence through Creativity* (second edition published by A. H. Wheeler, 1988). An attempt to revise *Fourth Eye* for a third edition ended in failure: there was just too much new material, too many new ideas, too many new perspectives to be conveniently accommodated within the architecture of *Fourth Eye*. A metamorphosis seemed inescapable. It made sense to write anew rather than revise. But it also made sense to retain material that was still relevant. Thus, I have retained substantial amounts of materials in Chapter 7 and Chapter 9 of *Fourth Eye* in respectively Chapter 5 and Chapter 11 of the book. I have also retained, though with suitable modifications, several feedback instruments included in *Fourth Eye*.

It also made sense to have two complementary and yet distinct books—one for thoughtful persons interested in the wonder that is creativity and wanting to enhance their creative potential, and the other for thoughtful managers interested in understanding workplace creativity and ways of harnessing it and enhancing it for organizational excellence.

*Corporate Creativity* draws on global research—not just US or Indian or British research—for its insights. It also draws on my personal experiences and insights as a creativity researcher, trainer, teacher, and management consultant. It discusses managerial creativity. It provides models of management creativity as well as dozens of practical tools and techniques for enhancing it. It describes creative ways of transforming laid-back organizations and institutions into dynamic, innovative ones. It also discusses what innovations are like and how they need to be managed, and how managers must re-skill themselves for this purpose. Most Western books on management creativity tend to get limited by their ethnocentric preoccupation with Western examples and perspectives. In this book, the reader will find international examples everywhere, and multiple and multicultural perspectives. There are chapter end quizzes and mental gyms to test understanding of management creativity and to help apply it to real-life organizational situations. And there is a bibliography of popular level as well as scholarly books at the end of the book for those interested in delving deeper.

Finally, I want to acknowledge my debt to Ms Uma Baskaran for coping so effectively with my untidy scrawl and frequent corrections to the typescript, the Indian Institute of Management, Ahmedabad for providing me facilities for completing the manuscript, the numerous creative managers and organizations that have ignited and sustained my interest in management creativity, and Tata McGraw-Hill and its editors for their careful editing. I am specially grateful to Ms Arshi Zahid for permitting the use of her intriguing drawings based on letters of the alphabet, and also to Mr Jiten Mishra for his computer graphic on encounters in Chapter 5. Needless to say, any flaws remaining in the book are all my doing.

**PRADIP N KHANDWALLA**

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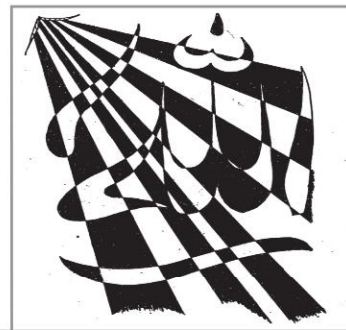
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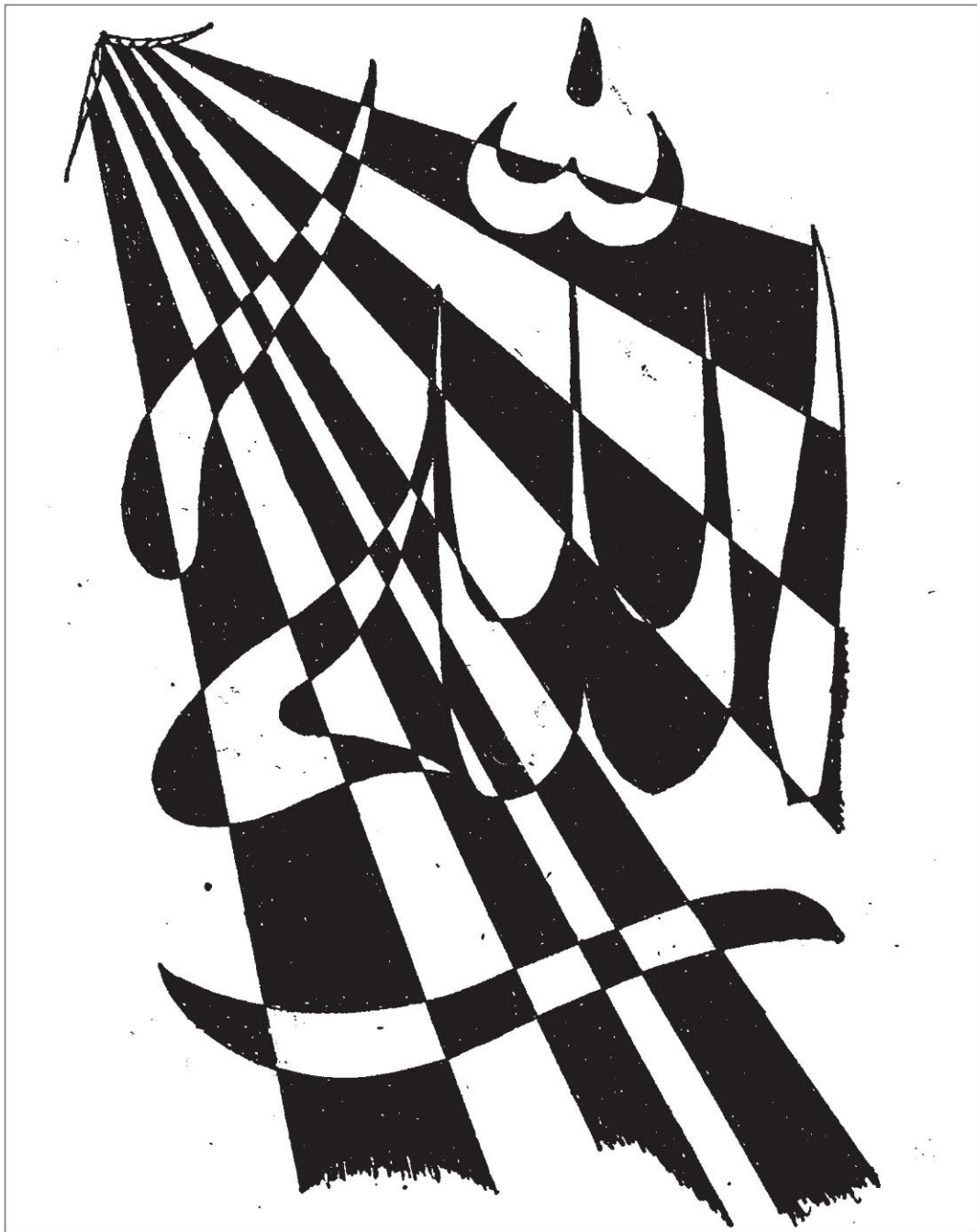
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# Management Creativity and its Forms

- The Context of Management Creativity
- Forms of Management Creativity
- Concluding Comments

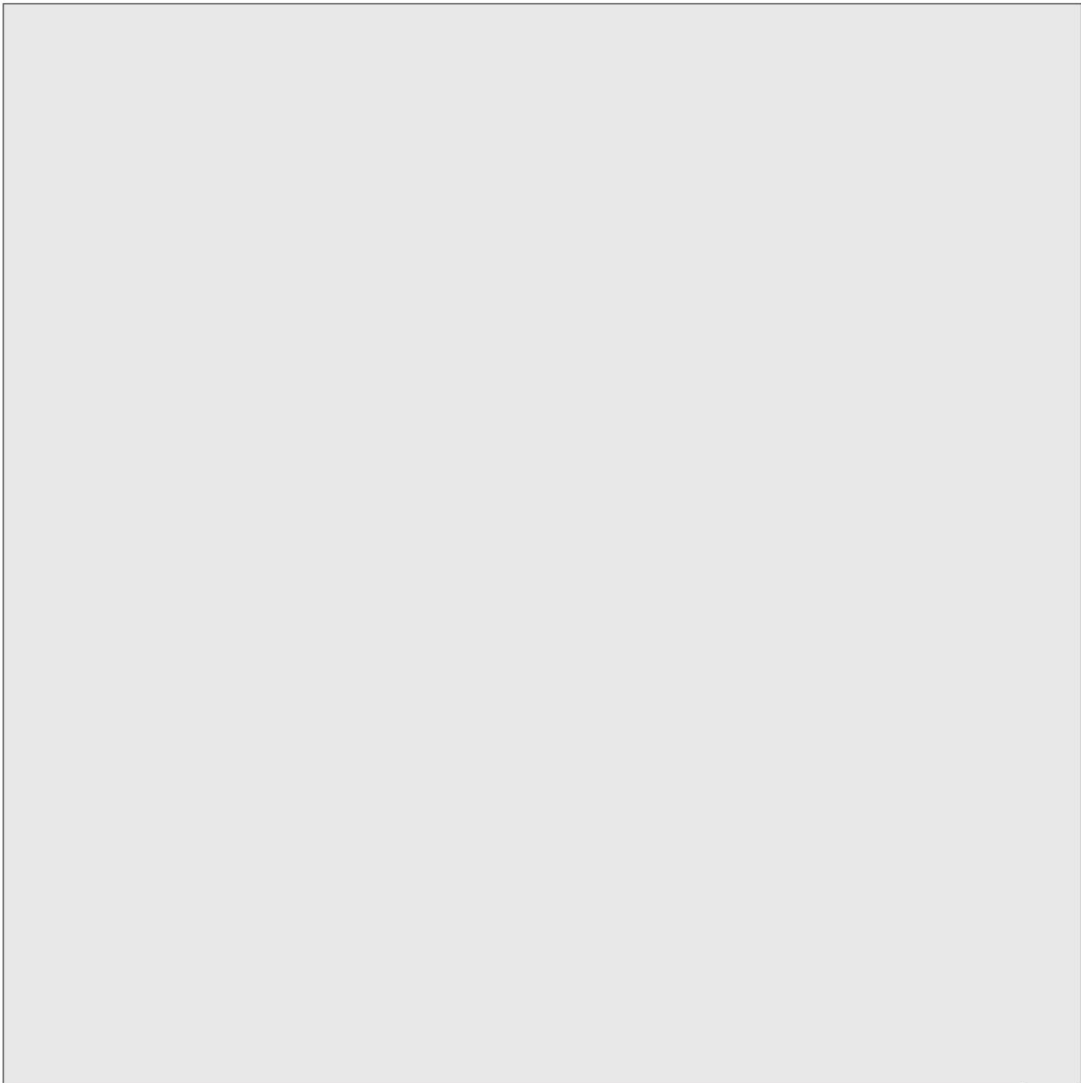


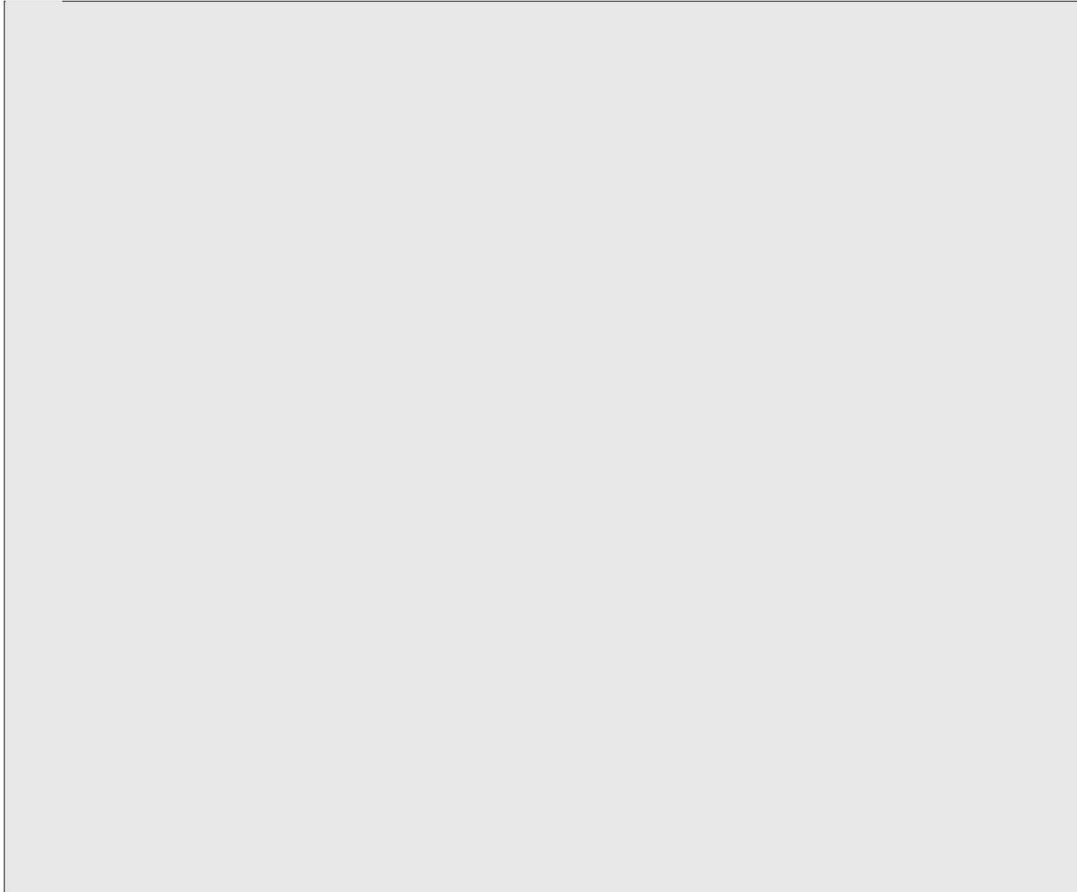


Creation is the great redemption from suffering



Creativity has been defined in dozens of ways, but essentially it means the process by which novel but situationally appropriate outcomes are brought about.





The management of creativity in organizational settings is relatively far less researched, but is of great importance in a world of huge collective challenges and fierce competition. It fuses two fields—management and creativity. Management can be defined in many different ways, but broadly it is an organized effort at improving the functioning of organizations through such processes as the fixing of goals, the development and implementation of a strategy for achieving goals, the control of operations to ensure that goals are being met, the coordination of interdependent activities, the creation of structures and systems, the management of human resources as well as of other stakeholders and so forth.

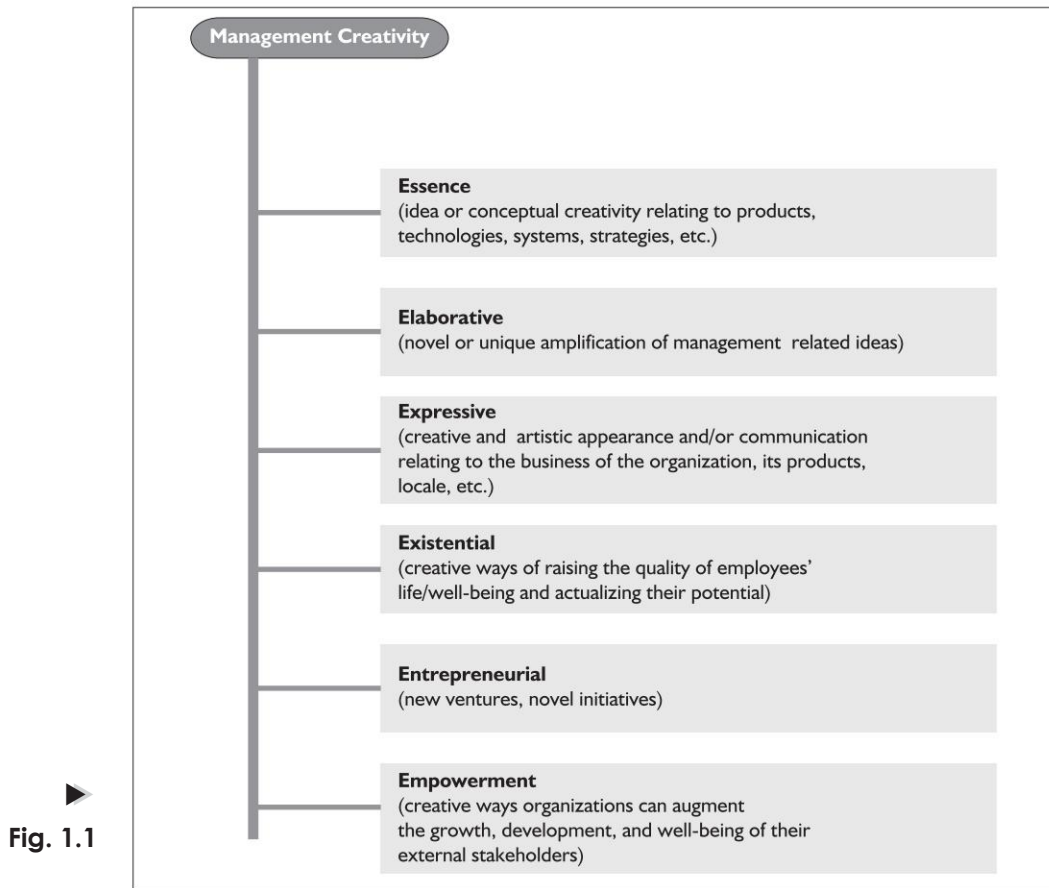
governance systems of communities and societies. Even when one is discussing managerial creativity (the creativity of individual managers), the focus is on the creativity displayed in a collectivity and relating to the various tasks that need to be performed in that collectivity. The work-related context channels creativity in important ways—towards achieving the goals of the collectivity and in discharging various management functions. The focus is not ‘pure’ art or science, or individual self-actualization, but on creative behaviour in an organizational setting in which the organization’s goals, policies, structures, systems and so forth call the shots. Although individuals working in organizations certainly attempt to pursue their own interests, they do so keeping in mind organizational requirements, and this feature strongly influences the form that creativity takes in organizational settings.

Thus, in a work setting, a writer may turn into a writer of ghost speeches for the Chief Executive Officer or an internal communications specialist editing the corporate magazine, a painter into a producer of advertising copy, a scientist into an R&D person, and a thinker into a business strategist. Is this a calamity? Probably not. Creativity is novelty that works. Creativity in organizational settings is simply creativity that works in the organizational context. The context may be a bit different as compared to that of a person, but not necessarily the intensity and level of creativity (see the box on *Applied Creativity at Brunswick*). William Shockley’s creativity in inventing the junction transistor at Bell Labs and commercializing its applications was as impact making for life on earth as the discovery of black holes for comprehending the nature of the universe.

### **Applied Creativity at Brunswick**

In the late 1950s, Brunswick Corporation, US, had come to be regarded as a creative organization that had made important contributions to improving the everyday lives of people.

considerable importance to contemporary managements and therefore bears a brief discussion (Fig. 1.1).



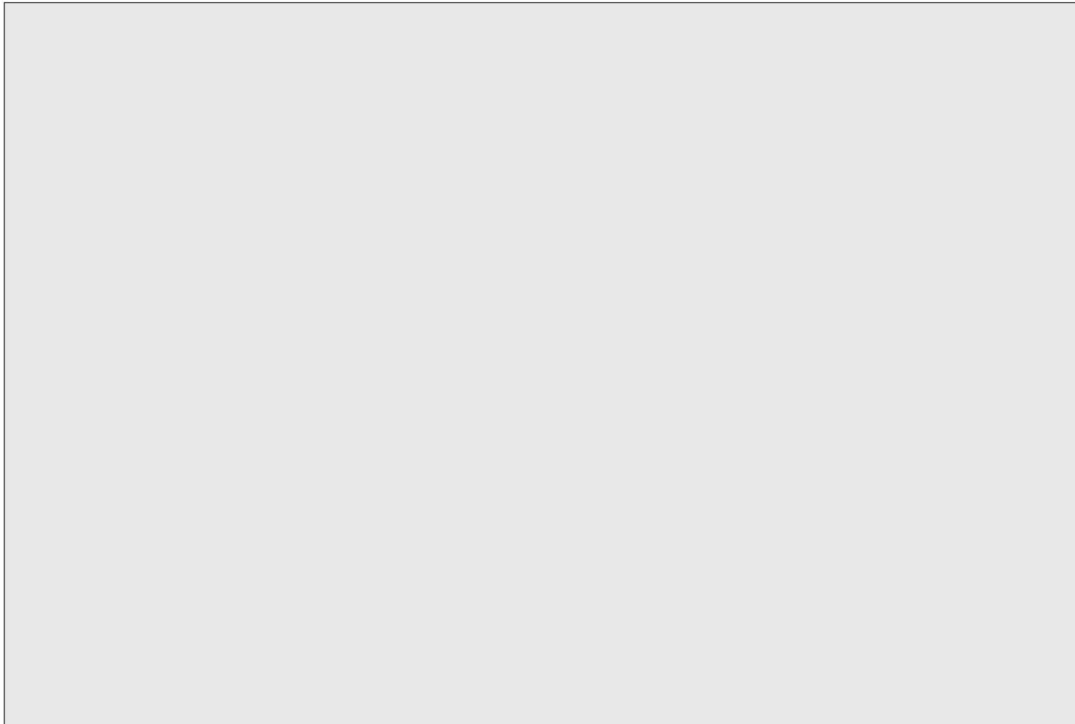
*Forms of Management Creativity*

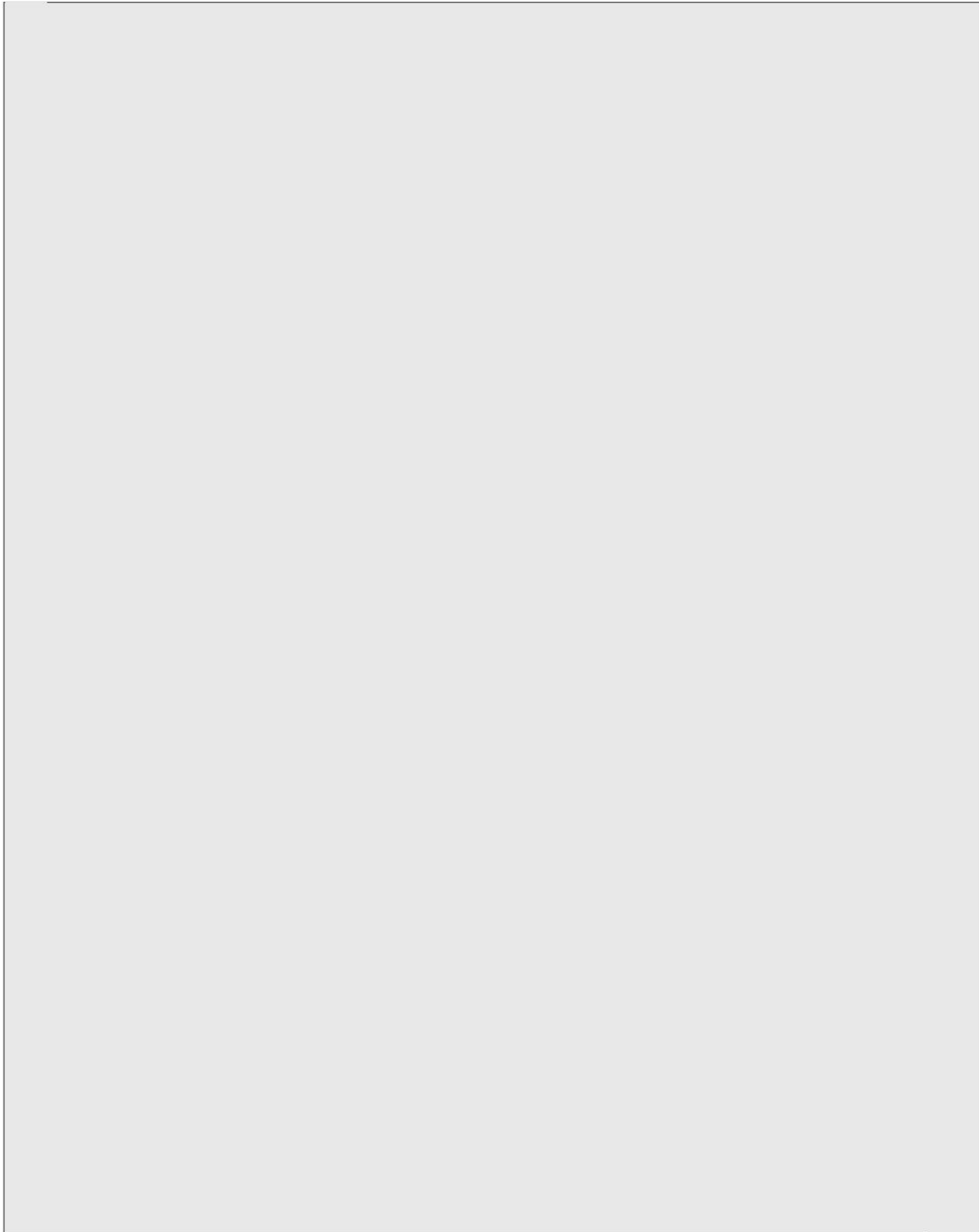
### Essence Creativity

Creativity that takes the form of new ideas, concepts, principles, breakthroughs, and viewpoints is essence creativity. In management, it commonly takes the form of fresh, new 'core' policies, strategies, values, and visions. When a company that has been in the automotive



business redefines itself as being in the transportation business—which opens up many new opportunities such as in road, air, and marine transportation—the creativity involved in the redefinition of business is essence creativity. When a diversified organization that is functionally organized adopts the principle of divisionalization, that is, of subordinating all needed functional expertise to the marketing of a product or a group of related products, that principle, if new to the business, constitutes essence creativity. Adoption of the participative, power sharing philosophy of Theory Y management when the earlier philosophy was the authoritarian and manipulative Theory X also constitutes essence creativity.







### **Elaborative Creativity**

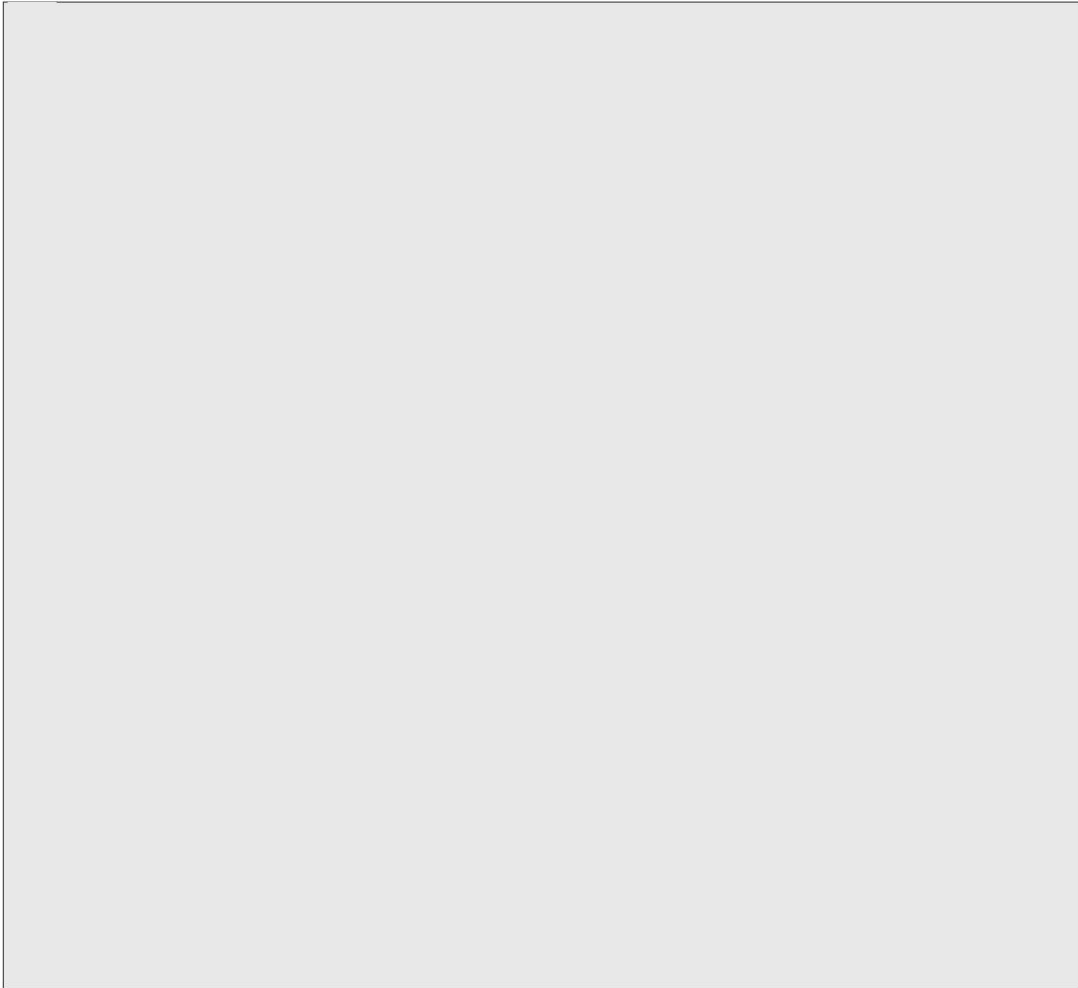
If essence creativity is a compact form of creativity, elaborative creativity is the innovative amplification of a core idea or principle. The difference is between, say, staff empowerment as a core belief and its amplification into personnel policies, participative management structures, training programmes, and so forth. Elaboration can become innovative when it is creatively contextualized, that is, creatively fitted to the organization's situation rather than simply borrowed from elsewhere. It can become innovative when it is done participatively, involving various viewpoints and much brainstorming, and the ideas are creatively synthesized. It can become innovative when not just one but several powerful, possibly partially conflicting ideas are fused together to form its basis, such as the ideas of centralization and decentralization, control and autonomy, or internal entrepreneurship and efficiency. Elaboration can also become innovative when it is periodically reviewed and creatively modified to suit changing circumstances. And it can become innovative when it is benchmarked, not with practices of the leading competitor, but of the world's best practitioners, and not necessarily in the organization's industry, but in any sector of activity, for then it may reveal gaps that can be bridged only innovatively. When elaboration is made innovative in these ways, it is difficult for others to copy it, and therefore such elaboration confers a competitive advantage on the organization. See the box on *Innovative Quality Improvement Programme of Ford*.

### **Expressive Creativity**

No management is possible without expressive communication, and creative communication is almost essential in a wide range of activities like advertising and promotion,

### **Innovative Quality Improvement Programme of Ford**

In the early 1980s Ford Motor Company, US, developed a serious problem: it was widely perceived by customers as producing unsafe, poor quality cars.

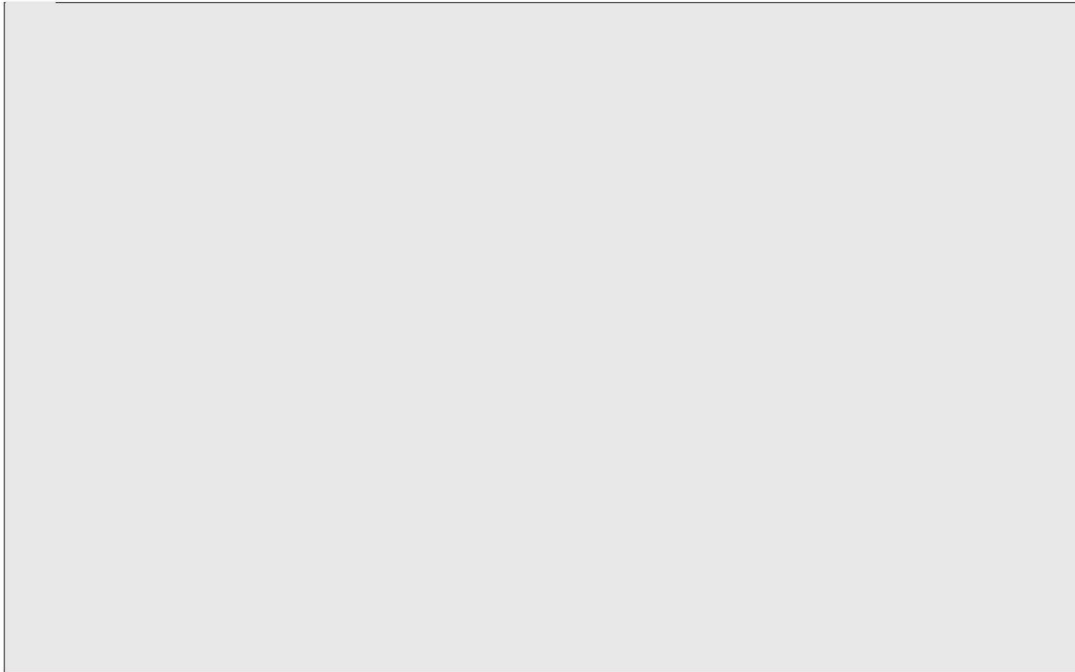


packaging, public relations, product design, interior décor, landscaping and architecture, internal newsletters and so forth (see the box on *Many Ways of Creative Visualization*). Arresting, pithy metaphors, slogans, or statements can be effectively utilized by leaders intent on transforming or turning around their organizations.

philosophy, “If the level of a river is very high, it is difficult to see the many rocks underneath. It is necessary to reduce the water level to find the rocks.” Robert Lutz of Chrysler Corporation used an arresting metaphor for the necessity of customer orientation: “The customer is usually a rear-view mirror.” David Johnson, the CEO of Campbell Soup, US, explained that the turnaround situation initially is one of “‘Boom’! Strike! Crash!” Alden Clausen, the CEO of Bank America warned the laggards in the sick company: “I didn’t come here to rearrange the deck chairs.” Lou Gerstner, trying to turn around a sickly IBM similarly warned: “The first person who acts complacent around here is going to get a two-by-four on the side of his or her head.” Thus, expressive verbal creativity uses language that is graphic, metaphorical, and/or rhetorical to shake or delight people into a mindset change.

### Many Ways of Creative Visualization

Visualization is a powerful technique in creative communication. People respond to pictures, paintings, cartoons, and so forth with their right brain hemispheres. When effective visualization is aligned with effective verbalization, both the brain hemispheres get involved, and the effect can be potent indeed. As an example, suppose you wish to position a car as a very safe car. What kind of an ad would you create? I came across an ad about Volvo, a Swedish car known for its safety features, that did this effectively.



### **Existential Creativity**

Existential creativity is about raising the quality of our existence, enlarging our consciousness, actualizing our potential, and growing and developing in ways that increasingly manifest our inherent humanity.

A number of organization theorists led by Douglas McGregor, Rensis Likert, Warren Bennis, Frederick Herzberg, Chris Argyris, and Uday Pareek have sought to synergize people's growth needs and the organization's needs. The synergy is especially possible in times of change when the organization needs to make innovative responses. Innovative organizational responses require that organizational members have considerable freedom to be creative. If creative energy is to be directed towards organizational goals, people must feel that they are growing and self-actualizing in the course of their work in the organization. This way, staff creativity and commitment can be directed towards organizational purposes. The logic works especially strongly in knowledge industries and professionalised organizations, for in these the staff are likely to be better paid and better educated and, in terms of Abraham Maslow's model of need hierarchy, likely to have active self-actualization needs.



Chris Argyris suggested expanding the consciousness of the employee about the organization as a whole as a means of motivation.

supportive external network, envisioning the future and adapting the organization to this future, and providing a superordinate goal or vision to the staff.

The work of Warren Bennis and others on transformational leadership indicates that a vision-driven, articulate leadership that energizes stakeholders through boldness and challenge, and provides the means to them to rise to the challenge raises both leaders and followers to new heights and transforms the organization.

launched. In 1987–88, Black & Decker, US, launched 60 new or redesigned power tools, and 40% of its sales for the year came from products introduced in the previous three years.

to have a 'high learning at least-cost' strategy. Instead of rushing in with large investment and a large plant, it may be better to start small, say with a pilot plant/project, learn fast about likely costs and profits, master the business, and then grow rapidly. Increasing emphasis on entrepreneurial creativity requires strong management systems (planning, control, market research, financial and technical evaluation, etc.) to increase the chances of making the right choices and ensuring success. Equally, the organization needs to get decentralized, especially by setting up SBUs/divisions/profit centres/responsibility centres, so that dedicated general and functional management strengths are available to each significant venture. The right persons should be put in charge of the innovative ventures—entrepreneur types, visionary, achievement-oriented, determined, hard driving, intuitive generalists that are reasonably knowledgeable, and passionately committed to the pioneering and innovative venture.

### **Empowerment Creativity**

Love may be blind but in the form of caring it can be generative. Empowerment is about caring for people generally defined as 'others'. Empowerment is enhancing the authority, influence, status, competencies, personality, growth, and development of others. Creative empowerment involves creative and innovative ways of empowering others. In the organizational context, creative empowerment relates to creative ways of empowering the organization's external stakeholders, the society at large, or even movements for a cause. It can range from empowering specific individuals and groups to empowering other organizations, institutions, the masses, and so forth.

At one level, empowerment is enlightened self-interest. If one empowers others, the latter in turn can empower the former. If an organization participates in the activities of its industry association and tries to empower it, the association in turn can stand by the organization, should it run into a problem, let us say, with a government agency. Beyond self-interest, however, empowerment rests on commitments and convictions, and becomes an important part of the organization's vision of excellence.

There are many different forms of empowerment.

grievance redressal system. It can take the form of institution building, that is, the organization becoming a role model in its domain for key social values like fairness, business ethics, reliability, innovativeness, and humaneness.

Each of these versions of empowerment can be pursued in endlessly various, creative ways. Stakeholder orientation can be pursued in ways like giving seats to major stakeholders on the board, giving them ownership stakes, setting up councils of different stakeholders for periodic dialogues with the management, and periodic surveys of major stakeholders for identifying their satisfaction, grouses, and suggestions for the organization. Jaguar Motors, UK, for example, flew in its American dealers to take a look at Jaguar's modernized facilities and practices;

## CONCLUDING COMMENTS

*Organizations operating in turbulent and competitive contexts with ambitious aspirations need all six forms of creativity, and the ability to fuse these forms to make them context-relevant. Stimulating human creativity—in all its forms—in the organizational context, and harnessing it for organizational purpose is a great new frontier of management. How do we ready the organization to generate copious amounts of creativity? How can we make novelty work for the organization? These are the questions addressed in the rest of the book. First, however, let us take a closer look at the nature of creativity itself. Thereafter, we shall examine managerial creativity, techniques of creativity, team or group creativity, organization-wide creativity and means of enhancing it, processes for transforming static organizations into dynamic, innovative ones, and the management of innovation.*

### ? QUIZ

- 1 Global competition is intensifying. Does it mean that every organization will have to get more innovative?

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- 2 What kinds of creativity become vitally important as competition intensifies? Would there be any differences between 'high tech' and 'low tech' companies?

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- 3 Global R&D spending is rising. What implications does this have on the forms of creativity in the corporate versus the government sector?

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[illegible][illegible]



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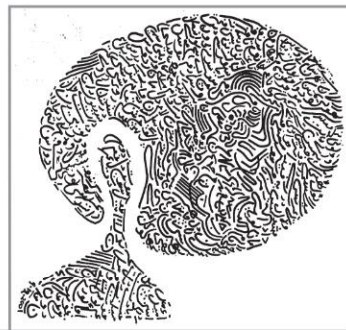
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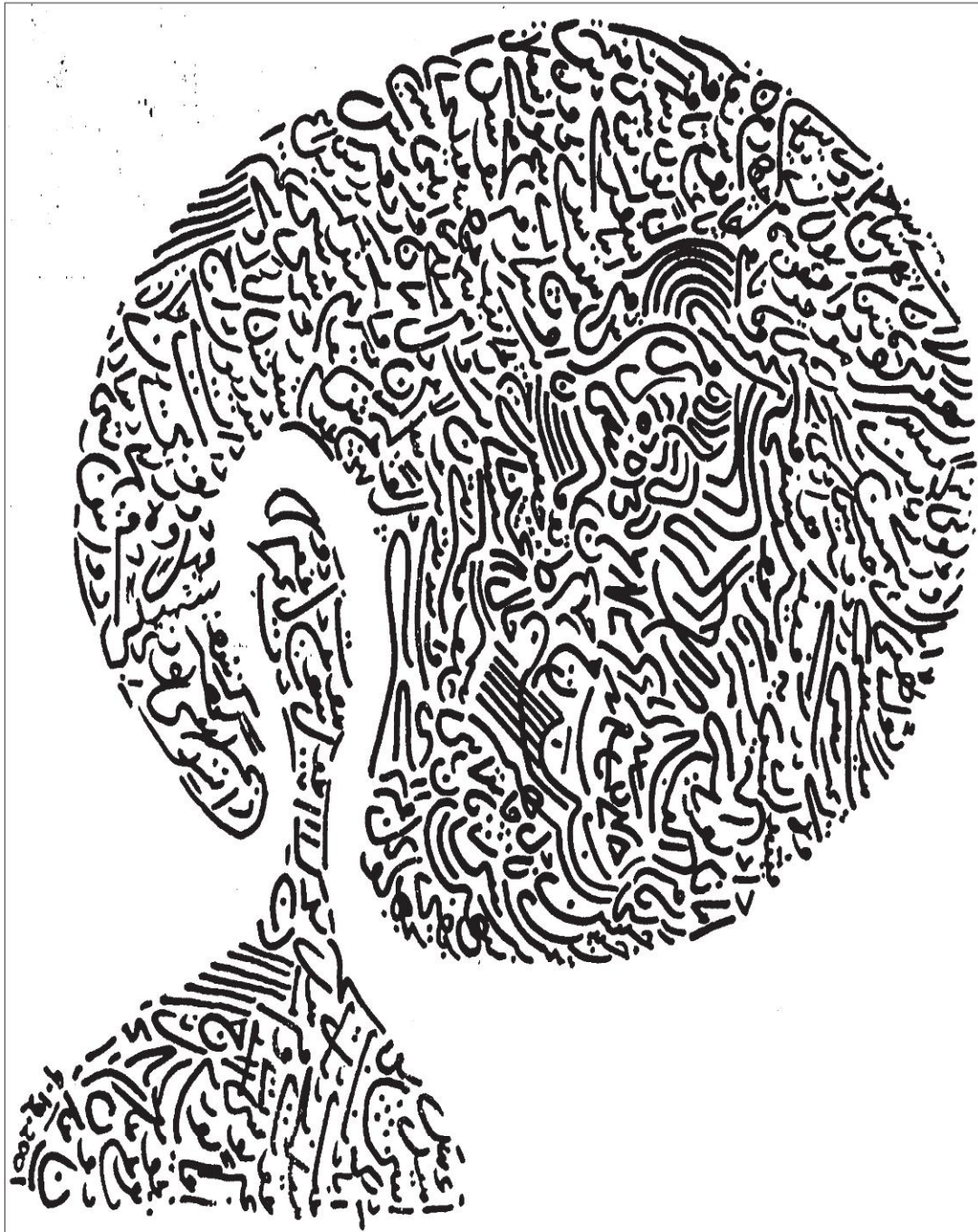




# The Creativity Goldmine

- Creativity and Civilization
- What is Creativity?
- The Creative Personality
- Creative Intelligence
- The Creative Problem Solving Process
- Can Creativity be Enhanced?
- Environments that Stimulate Creativity
- Concluding Comments





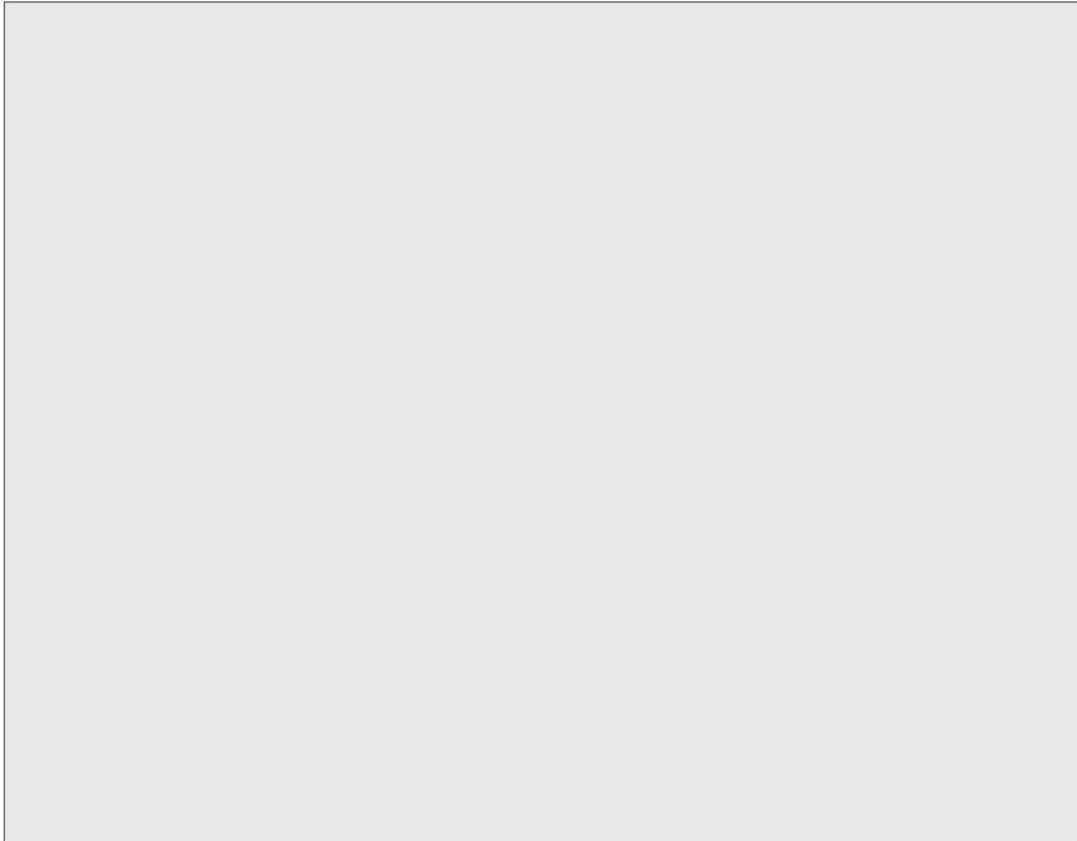
“Imagination is the secret and marrow of civilization”



Until the 15



employment security, and cooperative management. Charles Babbage of the UK advocated time and motion study. He studied the effects of various colours on employee efficiency! Daniel McCallum of the US innovated the organization chart, and applied systematic management to the railways. Finally, Henry Metcalfe of the US discussed the art and science of management. These were the precursors of 'scientific management' whose foremost exponent in the 20



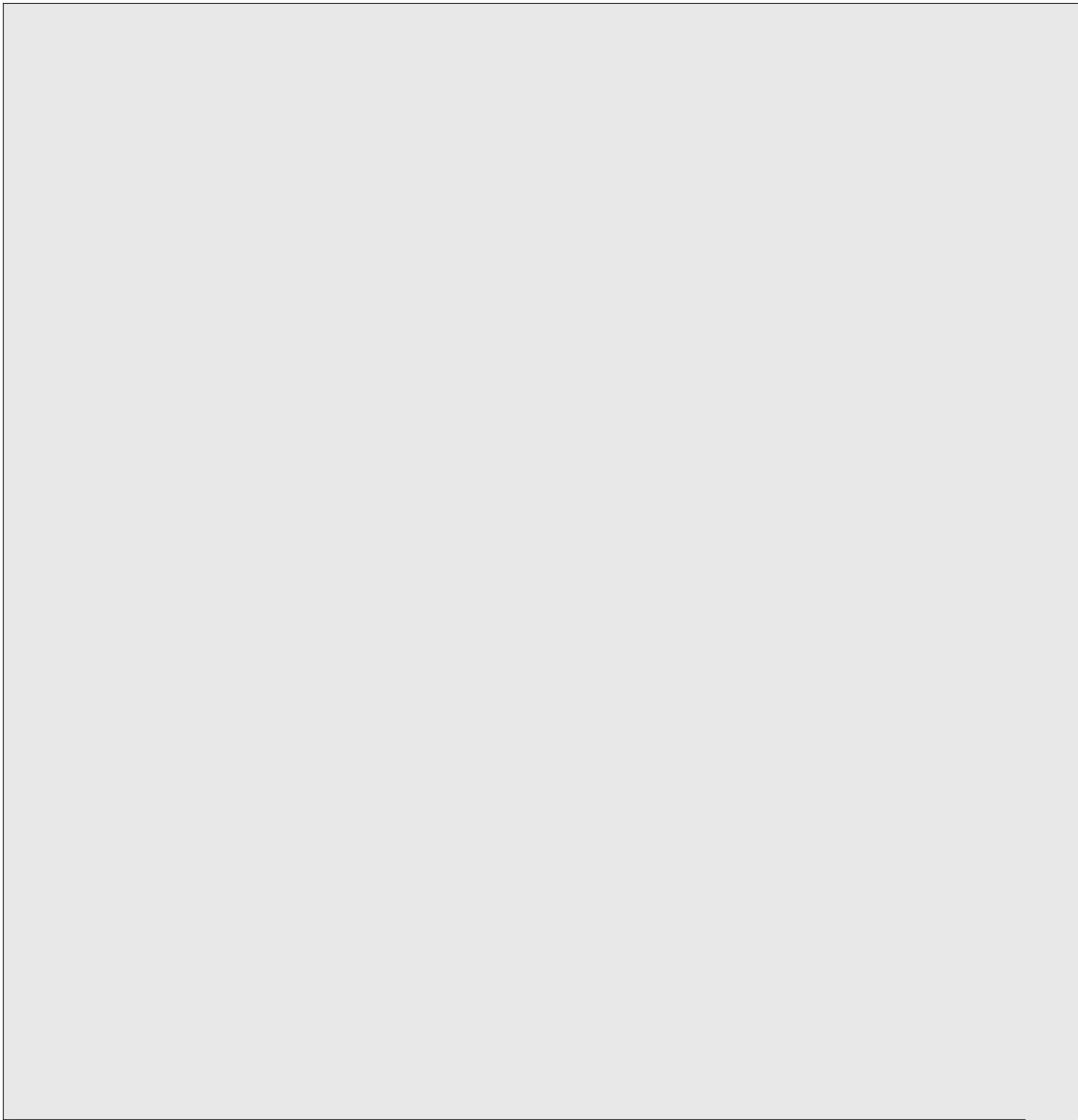
## WHAT IS CREATIVITY?

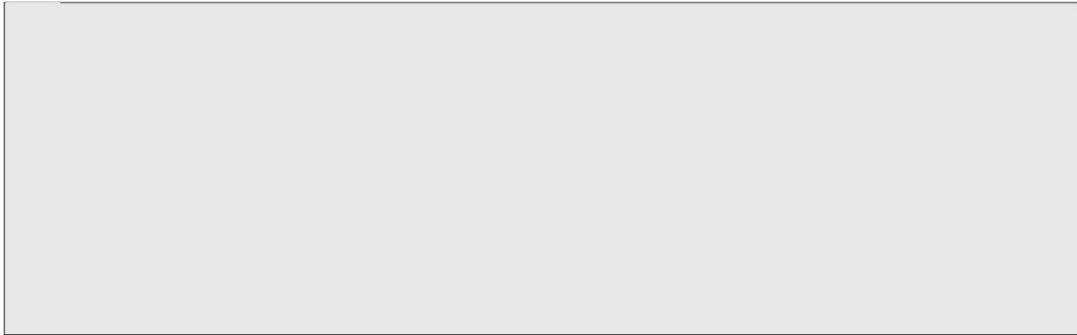
Many have speculated on creativity—see box on *Scholars, Sages, and Geniuses on Creativity*. However, experts have suggested that the essence of what we consider creative is the element of freshness, originality, and novelty that is also appropriate to the context.

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creative ideas to consciousness.

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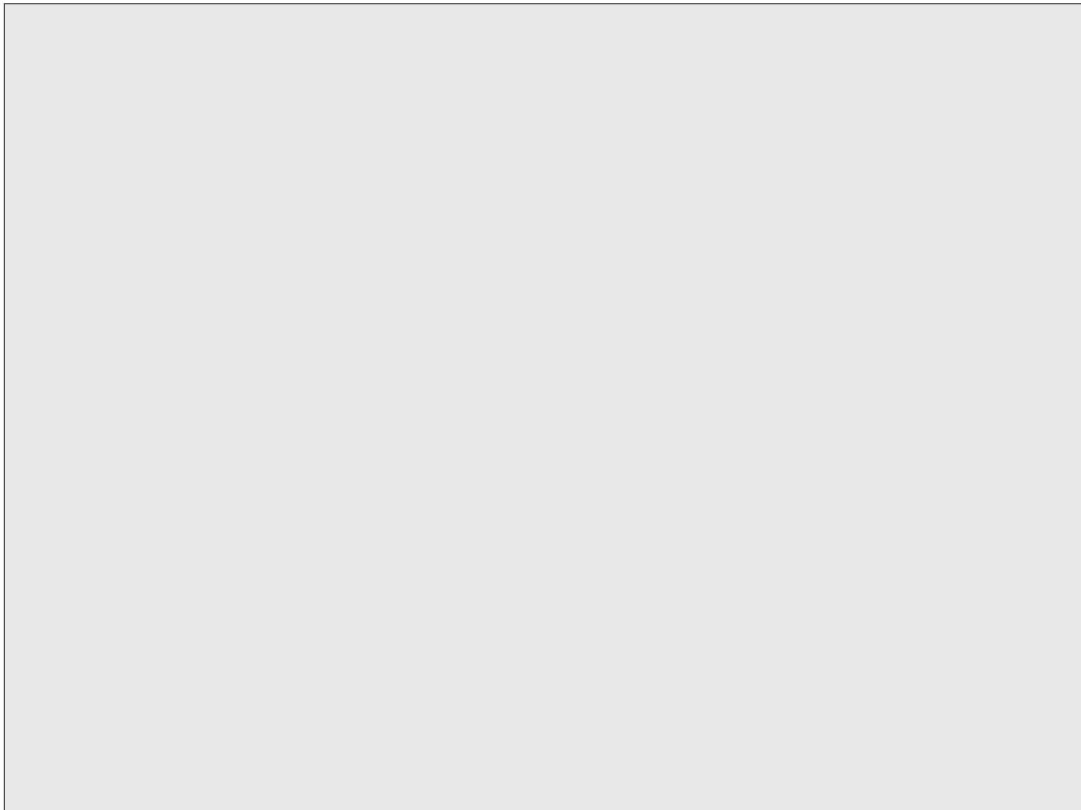
Creativity is the set of attitudes, abilities, and mental processes that increase the probability of hitting upon solutions that seem to the well informed both novel and appropriate. Thus, whether the outcome of an effort is going to be creative or not is likely to depend upon the personality and attitudes of the person involved, certain distinctive mental abilities that go beyond just IQ, and certain problem solving processes in which what is called convergent thinking is nicely balanced by what is known as divergent or lateral thinking.

## **THE CREATIVE PERSONALITY**

The key elements of the creative personality are certain traits and motives, and the absence of certain mental blocks. We know from a good deal of research the personality traits that characterise persons regarded as creative.

for their magical creations. Often, creative persons exhibit a form of complexity, even unpredictability that comes from having contrary traits.

Certain motives play a significant role in the case of creative persons. While most people, particularly professionals, have a strong desire to succeed, to achieve, to get ahead, to be respected, and so forth, creative persons have a strong desire to actualize their potential, do something new, unique, pioneering, or innovative.



of becoming a social outcast, fear of punishment by one's superiors, and so forth. Mental blocks affect creativity by censoring out 'dangerous' options and ideas. Often the person is not even aware of this, and that is why mental blocks are so insidious. These blocks extract not just a personal cost; they have large social implications, too. In cultures in which childhood rearing, educational and/or work practices drill excessive fears into most people, these blocks could become widespread, and societies may then become timid and conservative. Indeed, defensive people create norms and sanctions to enforce conformist behaviour so that priesthoods and governance systems arise that punish 'deviant' behaviour. In 19

$$\text{Creative potential} = \text{Creativity traits} + \text{Creativity-spurring motives} - \text{Mental blocks that impede creativity}$$

To sum up, generally speaking the creative person is curious, sensitive, venturesome, independent, persistent, complex, imaginative, visionary, and moody and yet realistic. She/he is propelled by the desire to grow, innovate, pioneer, change the status quo and is not hampered by various sorts of fears and blocks that act as inner censors of bold ideas. Personality change is possible—where there is a will there is a way. Through training, it is possible to help people who want to change and move towards this personality profile.

*they can force him to engrave the plates. He is very reluctant but they threaten to harm his wife and children so he gives in. But he draws George Washington cross-eyed and the counterfeiters are captured and he is released.”*

### **Problem Sensitivity**

There are many distinctive creativity-related abilities.



self-control vis-à-vis the food they eat, solutions will lie in diets and exercises, which few people seem to be able to keep up. How about creating aversion to food through overfeeding? In the radiation treatment of tumours, painful burns to healthy tissues are frequent. So long as we think of a relatively fixed source of radiation, we can't do much about it. But if we can think instead of how to get high radiation intensity at the site of the tumour but weak intensity where radiation passes through the skin, a solution becomes possible. One can have multiple radiation sources positioned such that their rays intersect at the site of the tumour.

### **Capacity to Ideate**

A third creativity-related ability, one that can be trained fairly easily, is the ability to ideate copiously. Suppose I were to ask for the uses of the aspirin pill. Most would promptly write down relief from aches and pains and fever. But some might consider its round shape and wonder whether it could be used as a button; or whether it could be used in a collage; or whether one could make a joke about it as when Lionel Barrimore, the actor, said of America: "You can buy in America a lifetime supply of aspirin for a dollar but use it up in a week!" Or you can crush the pill and use the white powder for painting purposes. Or dissolve aspirin in water and feed it to your flowers in vases for making them endure. Or make anagrams out of the word aspirin. Or teach children how to catch things by throwing aspirin pills in the air. Or use them as placebos on hypochondriacs. Or engrave God's name on them as a hobby or in repentance. This ability to come up with many ideas can be developed fast. It can be done by the habit of listing ideas without evaluating them while one is listing them. This way, one idea leads to another, and the second to a third, and so forth in a chain reaction. The technique of brainstorming popularized by Alex Osborn builds upon this principle of deferred evaluation of ideas.

different ways; ability to guess the causes and consequences of issues; elaboration or the ability to develop an idea in innovative ways; and originality.

### **Flexibility**

Flexibility is a key creativity-related ability, for as someone has put it, the eye altering alters all. In designing a factory, a chief consideration is efficiency and smooth production flow. Add an artist to the design team and aesthetic considerations would change the factory's format, paths, greenery, and surface modulation while paint could transform the inner landscape of the factory. Bring in a musician and the ugly, jarringly loud clangings and screeching would be drowned in melody and orchestration. Bring in a housewife and the factory would get comfortable with home-like rugs, curtains, sofas, and other furnishings. Lucas, UK, for example, put marketing and finance people in the cross-functional teams that were set up to redesign its factories.

## Guessing

The ability to guess the causes of problems or situations is, of course, the ability that distinguishes a first-rate scientific mind from a mediocre one. Guessing is nothing but forming hypotheses about how or why a phenomenon has occurred. Everybody makes conjectures; but it is a creative mind that makes non-obvious—but correct—conjectures. Archimedes' conjecture about why bodies float in fluids is an example. Lord Keynes' conjecture that capitalist economies undergo prolonged depressions because of insufficient demand was also a novel conjecture because other economists had simply assumed the problem away. In management, too, good guessing ability is quite an asset, for if the causes of why customers prefer one product over another or why a management system like an incentive system works better than another can be more accurately guessed, remedial action could be faster and more accurate.

Equally important is the ability of guessing correct consequences in ambiguous situations. The human is a conjecturing creature, and good conjecturing about the consequences of alternative actions must have been one reason why the 'human ape' prevailed in a nasty world. Making accurate forecasts—prophetic or otherwise—is another dimension of the ability to guess consequences. The weaker the clues and the more accurate the anticipation of what is going to happen, the stronger is the guessing ability. Intuitive ability may be a factor here. Intuition may spring from extra-sensory perception (ESP) or psychic ability. More frequently, it is likely to be associated with the use of good questions for grasping the core of a situation and extra-fast processing of information to deduce consequences. It is always a good question to ask why the present situation is the way it is, what forces are keeping it the way it is, what forces are pushing for change, and what forces are trying to keep these at bay. It is also a good question to ask how the present situation resembles some of the past situations one encountered earlier and what happened subsequently in those situations. The ability to imagine alternative future scenarios is also useful, for then each scenario can be put to the test of reason to determine its likelihood.

For both the cause-guessing and consequences-guessing abilities, the capacity to develop an abstract model of the situation can be quite useful. Causal diagrams, models, and formulae are common ways of trying to see the noumenon—the essence—behind the phenomenon. Once the situation is grasped in this fashion, the mind can more easily move backwards into the structure of causation as well as forward into the universe of conjectures about implications or consequences.

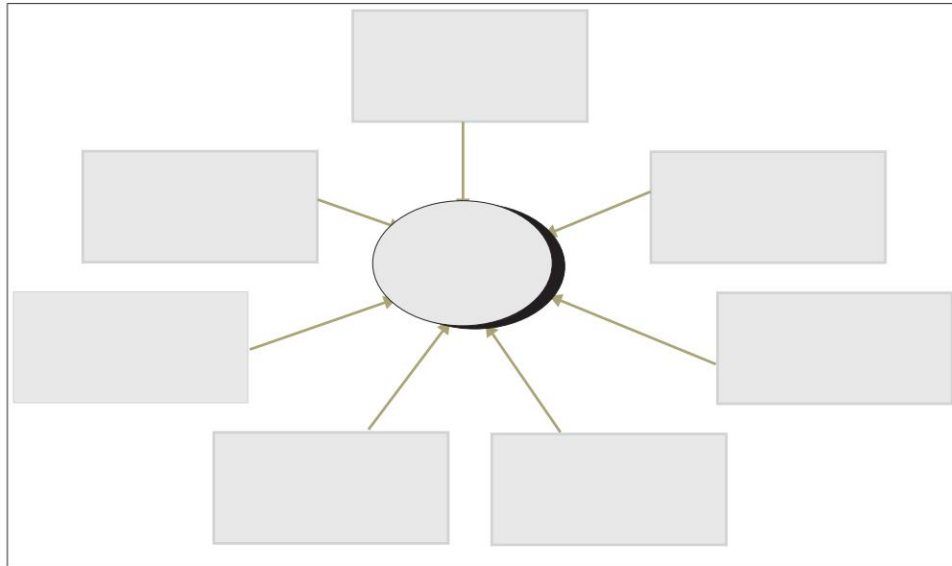
## **Elaboration**

Taking an idea or a thing and bending and stretching it in interesting ways is elaborative ability. Management is full of tools and techniques. Each of these is an elaboration of an insight. The idea that if management gets vital information about the performance and operations of the organization, then remedial action can be faster has led to computerized management information systems, which can be highly elaborate, with periodic reports running into dozens of pages. The idea that money is a motivator of effort has led to all sorts of elaborate incentive systems. The idea that in a market economy the customer is the king has led to all sorts of market research models to find out what the customer wants and what he or she is willing to pay for it.

Goal-oriented thinking is useful in elaboration. What is the desired reality, and how does it differ from the present situation? Once the gap is clear, it is possible to add a lot to or delete a lot from or modify various elements of the present situation to get to the desired end state. If in all these doings, some interesting 'twists and turns' can be added, the final outcome could be novel indeed. Problem sensitivity, problem restructuring ability, and flexibility can be useful sources of these 'twists and turns'. Also, the more uncommon the desired end result, the more interesting could be the elaboration.

Elaboration also becomes interesting when seemingly unrelated ideas or concerns are grafted onto a thing but in a manner that is plausible. For instance, budgetary control and human resource development are not seen as directly related, and represent possibly two different management philosophies, the so-called Theory X and Theory Y popularized by Douglas McGregor.

There is research evidence that ideational fluency and flexibility frequently yield original solutions.



An advantage that management enjoys over the individual is that management can seek original solutions by inducting several persons, each with a distinctive strength (one in problem sensing, another in problem restructuring, a third in fluency, a fourth in flexibility, and so forth) in the search process. Today, in the hyper competitive corporate sector, competitive advantage belongs to the companies that develop unique business strategies and/or internal operating systems.

in science-related problems, the creative process is marked by alternating phases of convergent and divergent thinking, interspersed by incubation when the conscious mind sort of refers the problem to the unconscious mind, and illumination or ‘aha’ or Eureka experience, in which an insight or a fresh perspective or solution suddenly dawns.

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generating creative ideas is to graft additional properties on to existing solutions. Take a common chair. If we graft onto it the idea of mobility we could turn it into a wheel-chair. If we graft onto it the idea of a swing, we could turn it into a swivel chair. If we graft onto it the idea of a container we could attach a cabinet to it, and if we graft onto it the idea of a table we could have one of those class-room chairs with a side-board for writing. And, of course, we could embellish it with the properties of flowers, beds, and so forth. Indeed, this idea of grafting properties on existing things has been turned into a technique of creativity called attribute listing.



### Enhancing Creativity Orientation of Managers through Training

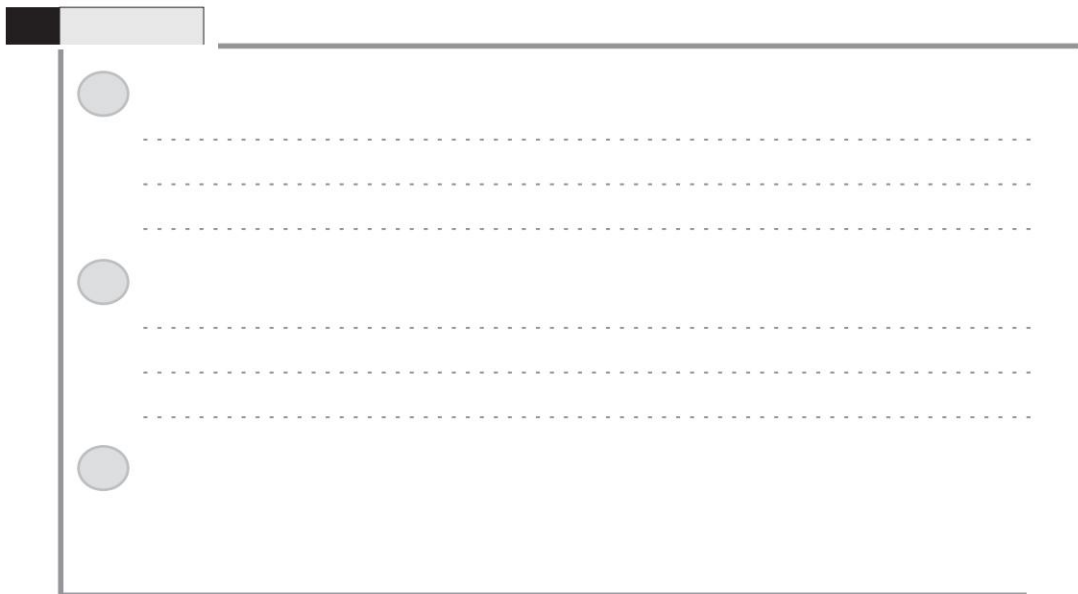
Min Basadur and her colleagues have developed three scales to measure managerial attitude related to creativity.

environment which affords encouragement and reward for creative ideas and provides reasonable facilities for experimentation. An environment in which the heroes and role models are creative individuals stimulates creativity. Finally, an environment that provides reasonable freedom of action but also communicates to the individual that he or she is expected to excel at effort of choice is also a spur to creativity. It is certainly not beyond us to find or develop for ourselves such an environment by the right choices of friends, hobbies, spouse,

education, neighborhood, type of work, and work place. Nor is it beyond us in our capacities as parents, citizens, or managers to create the right creative environment for our children, fellow citizens, or subordinates.

## CONCLUDING COMMENTS

*Creativity can be enhanced. It can be harnessed for the development of one's self, family, workgroup, organization, community, and nation. The question is: Will people choose to take the path of creativity or will they keep to the beaten track of conformity? Ultimately this is not just a matter of monetary or other incentives. It is a question also of attitudes. Do we want the safety and comfort of the familiar or do we want the thrill of exploring the alien? Do we like, as Stuart Chase put it, to merely exist, or do we like to live?*



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## 5 Can business tolerate a Picasso?

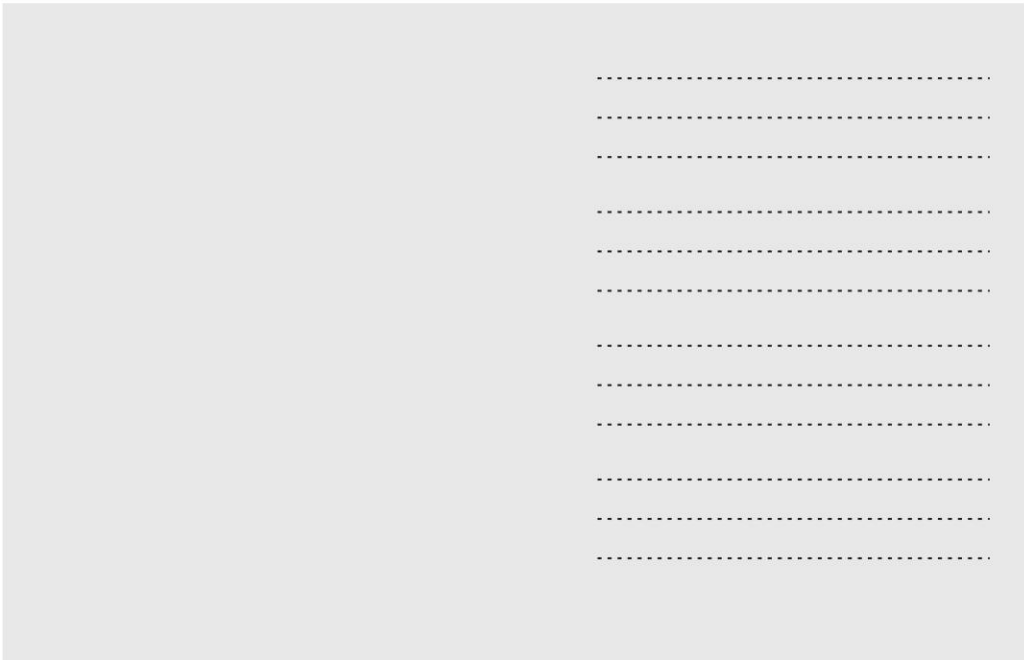
6 What kind of training would a retiree from a company's plant need to turn into a creative vendor to the company?



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# The Creative Manager

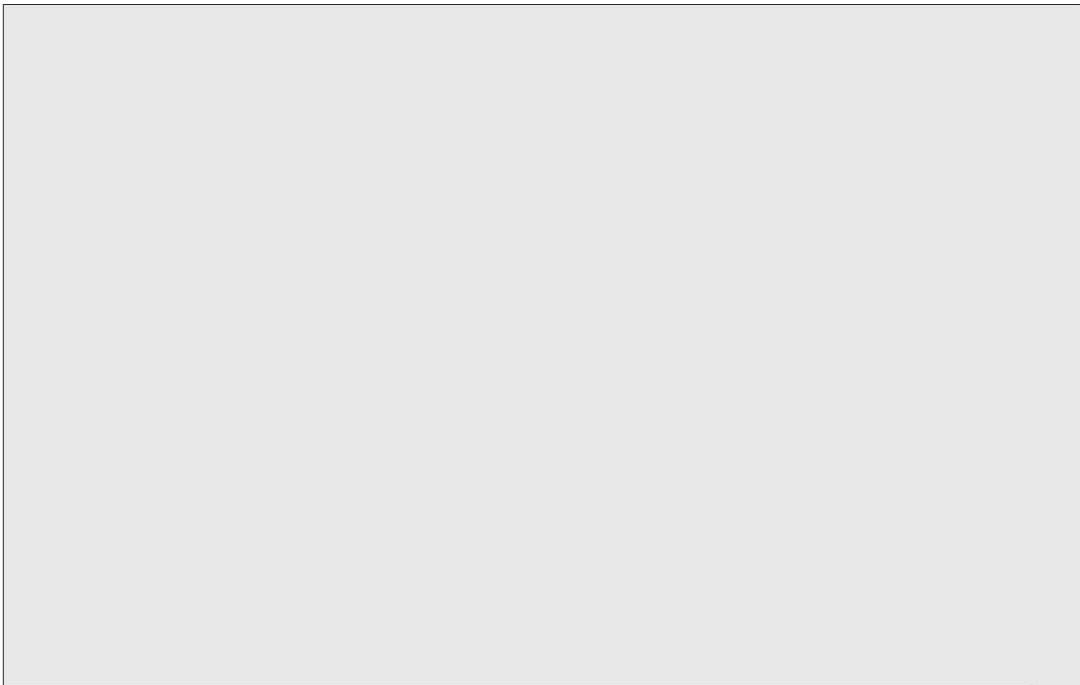
- ▶ **Managerial Personality**
- ▶ **Can Managers be Creative?**
- ▶ **Concluding Comments**







The mind of man is more intuitive than logical



that is, are curious, spontaneous, open to change and surprise, flexible, etc. Most people are amalgams of all eight types, but the proportions vary.

In terms of divergent and convergent thinking—important components of creativity—the intuitive (N), thinking (T), introverted (I), and perceiving (P) types are more likely to engage in quality divergent and convergent thinking than the sensory (S), feeling (F), extroversion (E), and judging (J) types. But managerial creativity requires not only good thinking capabilities but also choosing, interactive, and implementation skills, so that reasonable levels of sensory (S), feeling (F), extroversion (E), and judging (J) orientations are also necessary.

How do managers stack up on these dimensions? The Myers-Briggs Test of Type Indicator (MBTI) developed by Katherine Briggs and Isabel Myers has been used extensively in the US to assess various sorts of managers on the eight dimensions or orientations. Overall, the research findings suggest the following about American managers.

to substitute inductive thinking (arguing from concrete experience) by speculative, intuitive thinking.

When combinations of four of the types are considered, relatively the most common combinations in each managerial group are ESTJ (extroversion-sensory-thinking-judging) and ISTJ (introversion-sensory-thinking-judging).

The NP (intuiting-perceiving) combination has been found to be correlated with innovation as well as originality, suggesting that in organizations where divergent thinking is crucial (R&D, IT applications, strategic planning), such staff needs to be selected as has (or can acquire through training and exposure) relatively strong intuiting **and** perceiving (curiosity, openness) orientations. However, NP is not generally a favourite profile of American managers.

The question explored in this chapter, however, is what sort of a creature a creative manager is, and indeed, whether it is possible to be creative in an organizational universe of stultifying rules, regulations, and prescribed procedures and approvals.

## CAN MANAGERS BE CREATIVE?

Managers operate in a context in which, for the most part, the freedom to act is restricted. It is hobbled by limited delegated authority; rules, regulations, and policy frameworks they must respect; and practices, norms, and values that have got so well accepted in the organization that violating them may invite fury. Most managers operate within function-based silos and job descriptions that further erode their freedom to act.

But this is only part of the story. Managers are part of a system (the management system) in which taking initiative and adapting to environmental or internal opportunities and threats is the done thing, at least in dynamic organizations. Restricted though managerial freedom may be, within the constrained space each member occupies there is usually

enough room to innovate. Certainly the room to innovate tends to be substantially larger at higher levels; but even at lower levels there is at least some room.

Another factor that impels managerial creativity is that managerial tasks differ from manager to manager and also the means for achieving them cannot be standardized in a dynamic operating environment. Managers need to play a wide variety of relatively non-standardized roles to accomplish their assigned tasks, and in playing each role there is room for creativity, much in the way there is room for creativity in the playing of a role by an actor.

### **Managerial Roles**

Managers play a great variety of roles. In the late 1960s, Henry Mintzberg followed around five chief executives and jotted down whatever they did.

2. Planning of changes and innovations
3. Securing of vital intelligence
4. Procuring of vital scarce resources
5. Setting of long-term goals and strategy
6. Identification, understanding, and interpretation of major constraints
7. Understanding and interpretation of the organization's external environment
8. Articulation of the organization's vision
9. Contributing to the growth of the organization
10. Building up of the organization's image

Ten roles were called 'operational':

1. Policy implementation
2. Innovation/change implementation
3. Setting of short-term targets
4. Work allocation
5. Maintenance of the control system
6. Monitoring of staff performance
7. Disciplining
8. Crisis handling
9. Rewarding
10. Seeking suggestions from 'customers' to improve services.

There were 9 leadership and staff development roles:

1. Setting a personal example
2. Exciting the staff through challenges
3. Investing in the staff's growth and development
4. Motivating and inspiring the staff
5. Providing support to the staff
6. Providing guidance and counselling to the staff
7. Team building

8. Constructive resolution of staff conflicts
9. Emphasis on the right values.

The eight 'people management' or human relations roles were as follows:

1. Effectively communicating with the boss
2. Meeting the expectations of the boss
3. The development of effective relationships with one's colleagues
4. Being helpful to colleagues
5. Eliciting the cooperation of colleagues
6. Keeping one's 'clients' satisfied
7. Development of good relations with the staff of government agencies
8. Playing of ceremonial roles.

If managers, especially at senior levels, need to play so many roles, it is clear that they need to be very effective at allocating their time to these roles and at playing each role well. Much creativity would be required to learn how to play so many roles (including how to delegate away some roles or many of the activities of these roles) and how to play them well in a large variety of circumstances. The manager needs to become something of a quick change artist, capable of wearing many hats and changing them at a moment's notice, an actor on the organization stage who can conjure up the right, spontaneous lines and gestures in each of many unexpected situations. All this requires creativity.

### **What Can Managers Create?**

Managers can create a structure of roles and responsibilities, delegations, and coordination and control mechanisms in their departments to ensure that the department is able to carry out its assigned functions and tasks. They can craft a strategy of growth or of ensuring greater prominence of their department. They can shape the culture of the department and its work climate. They can also raise the department's image and its relationship with its 'customers'. Relatively rarely do managers individually create a new product or process. But they can play a powerful catalytic role in the innovation of new products, processes, and activities. They can transform a situation of despair into a situation of hope.

Let us look at some examples of what managers create, and how creatively they create.



Krishnamurthy could develop a widely acceptable revitalization strategy that he called Priorities for Action.

CEOs can also display considerable creativity and diversity in the way they implement their revitalization strategies. Krishnamurthy, for example, personally coached all his 500 senior managers on the turnaround strategy, got them to coach in turn their subordinates, and mailed the document Priorities for Action to all 200000 plus staff of SAIL, with freedom to them to fashion local turnaround strategies that were compatible with the corporate Priorities for Action. Lawrence Bossidy of Allied Signal, US, went about implementing the turnaround strategy somewhat differently.





over the world to Lufthansa establishments, talk to the staff, and listen to them at 'town meetings'.

He remained humble and adopted the lifestyle of his workers. He introduced systems to make working easier, safer, and cleaner for the staff, and ceaselessly, often personally, gave on-the-job training to the staff.

To paraphrase Victor Hugo: God made only water; but the manager made and marketed wine!

### **Traits Needed for Managerial Creativity**

The creative manager must be a creative human and an effective manager. There is considerable research on the traits of the creative person.

penalized; creativity needs to be directed towards organizational requirements; almost all creative initiatives require approval by superiors and acceptance by colleagues and subordinates to succeed; the cynical need to be won over; opposition of vested interests to these initiatives needs to be neutralized; dedicated teams need to be developed to execute creative initiatives; creative initiatives need to conform to evaluative and control mechanisms of the organization; changes and creative initiatives need to be synergized for maximum impact; and so on and so forth.

Let us examine how some creative managers operated to identify the traits creative managers need to possess.

How do creative managers operate? Kari Lampikoski and Jack Emden have analysed how six creative Western managers operated.

growth. Receptive to 'crazy' new ideas but also stressed effective implementation. Worked patiently with teams, encouraged participation of team members. Believed in the importance of catalytic questions. Put question marks in her room, on her memos, and on her blouses. Strong exciter, motivator, and delegator, but not personally a strong ideas person.



enrolling powerful godfathers or supporters for their innovative ideas. They were good at team building and participative decision making. They were good motivators, able to excite others for maximum contribution. But they were also generous, and could share rewards with others. They were persistent with others, but also tactful.

In my work with managers, I have found it useful to administer them a diagnostic instrument, which incorporates traits that I believe contribute to the success of creative managers and change agents. For constructing the instrument, I have used the model shown in Fig. 3.1. Basically, the model argues that there must be some fire in the belly for making innovations/changes in the workplace. But that inner fire has to be tempered by a sensitive understanding of the organizational context. To succeed in the rough and tumble of organizational life, the manager needs to be resilient. Capacity to solve problems rationally and creatively helps. Changes/innovations in the organization need the support of others and the manager must be good at resource and support mobilization. There must also be a reasonably strong drive to complete challenging and demanding tasks, and a drive to come out a winner. It is important to be confident in facing challenges thrust upon one as well as from taking challenges volitionally. In an organizational context, all innovations involve working with and through people, and hence interpersonal competence, emotional maturity, and what some have called emotional intelligence

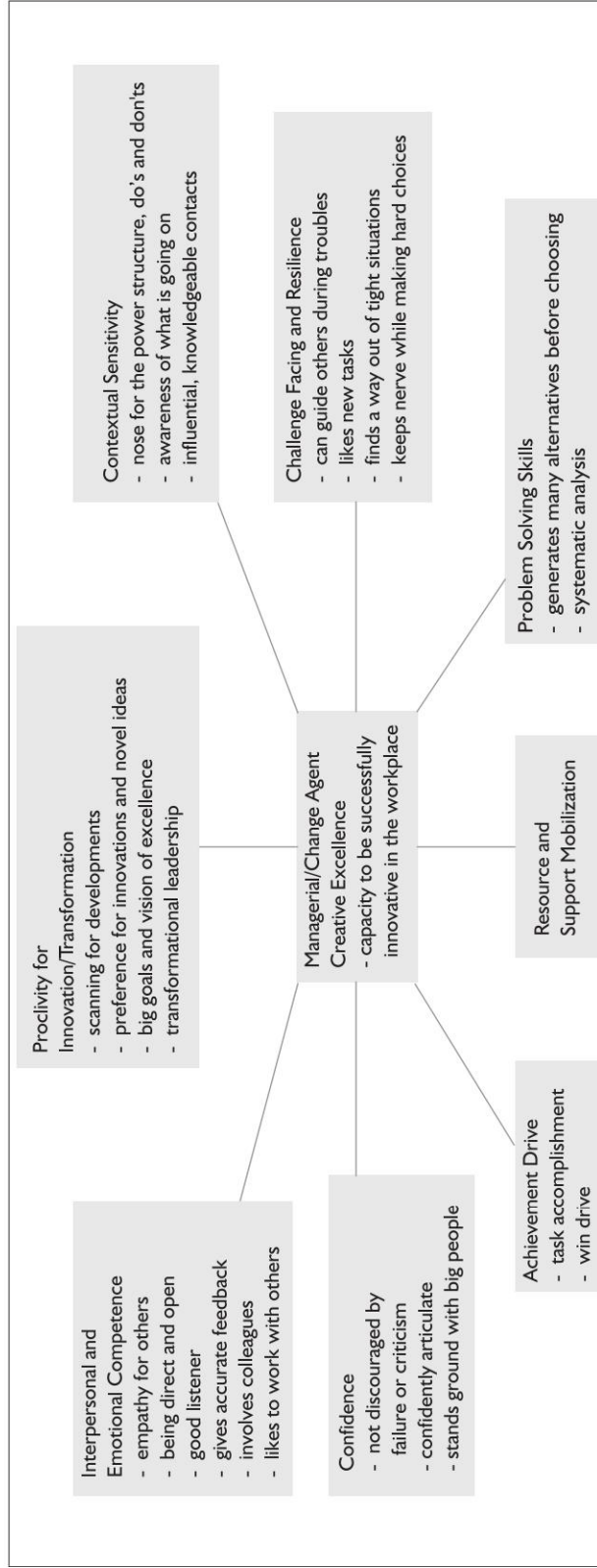


Fig. 3.1

Model of Managerial/Change Agent Creative Excellence



**? QUIZ**

- 1 Can managers be categorized as extroverts and introverts, thinking and feeling, or judging and perceiving oriented? Aren't all of them sometimes extroverted (especially after a martini) and sometimes introverted (especially after being passed over for promotion)?

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- 2 Whose act is innovative—the manager who initiates it, the boss who approves it, or the team that implements it after appropriate modifications?

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- 3 Is it possible for any manager to play 37 different roles?

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- 4 Can lower-level managers create a new work culture or craft and implement a revitalization strategy?

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- 5 Do leaders create teams, or is it vice versa?

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6 How can a creative manager, low on self-confidence and achievement drive, rectify these defects?

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## ANNEXURE 3.1

### Managerial Creativity Diagnostic Instrument

*Name:*

*Organization:*

*Date:*

Three columns are provided. The first column is for your ratings of your traits. The second column is for your colleague's ratings of your traits. After both of you have rated yourself independently, you may like to get together and discuss any significant differences. After this discussion, put down in the third column the final scores that you think fairly describe your traits.

For each item below use the following scale:

Not true at all    1    2    3    4    5    6    Very true indeed

	Scale items	Your rating	Colleague's rating for yourself	Consensus rating
1.	It is quite easy for me to put myself into the shoes of others and sense their feelings and moods.			
2.	I can quickly identify the power structure of the organization or system and get to know what powerful people in the system want or don't want.			
3.	I am able to 'smell trouble' before others do.			
4.	I am able to take over when things go wrong and provide guidance to others.			
5.	I can quickly identify the 'do's and don'ts' of the organization or the system I am working in.			

	Scale items	Your rating	Colleague's rating for yourself	Consensus rating
6.	I am good at keeping my eyes and ears open to what is happening around me.			
7.	I like to take on new tasks and I am quite at home in new settings and with new people.			
8.	I do not get disheartened in a tight corner, and I quickly try to find a way out of it.			
9.	I generally think up many and varied alternatives before evaluating any of them.			
10.	I like to keep in touch with major developments in my field and with opportunities for innovation in my organization or system.			
11.	I am quite direct and open in my dealings with most people.			
12.	I do not get unnerved even if I have to make hard choices and decisions.			
13.	I am able to bring order even to the most messy work situation by systematic analysis.			
14.	I put out my best and expect to come out way ahead of others.			
15.	I can be counted upon to play my part in getting jobs done.			
16.	I take work-related criticism or failure positively.			
17.	I find that others at work turn to me in their moments of emotional stress.			
18.	I usually think through several alternative courses of action before I decide.			
19.	I love taking up work-related challenges that come my way.			
20.	I tend to set myself demanding work-related goals or targets, and strict deadlines that stretch me considerably.			

	Scale items	Your rating	Colleague's rating for yourself	Consensus rating
21.	I keep in touch with a wide variety of people and consciously develop a large number of informative and influential contacts.			
22.	I am known to put across my views clearly and persuasively.			
23.	At work I like to come up with innovative solutions to difficult problems.			
24.	I am not intimidated or overawed by big people and big bosses.			
25.	In getting jobs done, I have a knack for doing the right things at the right times.			
26.	I am a patient listener and rarely judge someone until I have fully understood what the person is trying to say.			
27.	I generally give to others a correct picture of my thoughts and feelings without getting all worked up.			
28.	I carefully map out all the steps of a work-related solution or a course of action.			
29.	I seek and accept personal responsibility for getting a job done.			
30.	I have a knack for mobilizing the necessary resources for a task even when resources are scarce.			
31.	I often ask colleagues at work for their suggestions and opinions.			
32.	I am at ease with most people and I enjoy close working relationships.			
33.	When faced with tough problems in my area of work, instead of turning to stock solutions and tried and trusted methods, I seek novel or off-beat solutions.			
34.	I get new projects going easily and quickly.			

	Scale items	Your rating	Colleague's rating for yourself	Consensus rating
35.	I feel very impatient with traditional or conventional solutions to work-related problems.			
36.	One of my strengths is the ability to visualize big goals and getting people excited about achieving them.			
37.	I want to be on top in whatever important tasks I take up.			
38.	I am able to inspire others and I am able to infuse them with my enthusiasm for a difficult task.			
39.	I am good at roping in influential people in the organization to support my innovative ideas.			
40.	I am known for my ability to follow up on tasks and for getting them efficiently executed.			

Now enter the “consensus” score in Table 3.1 below. For this purpose, locate the scale number for each item in Table 3.1, look up the consensus rating for the scale item in the diagnostic instrument, and enter the score in column 1 of Table 3.1.

**Table 3.1** *Scores of Managerial Creativity Traits*

		Your consensus score as %	

[illegible]



[illegible]

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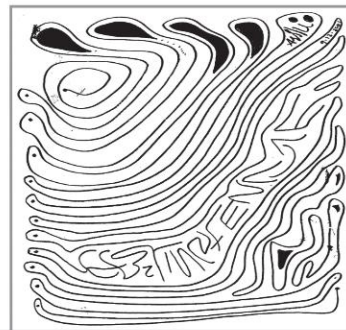
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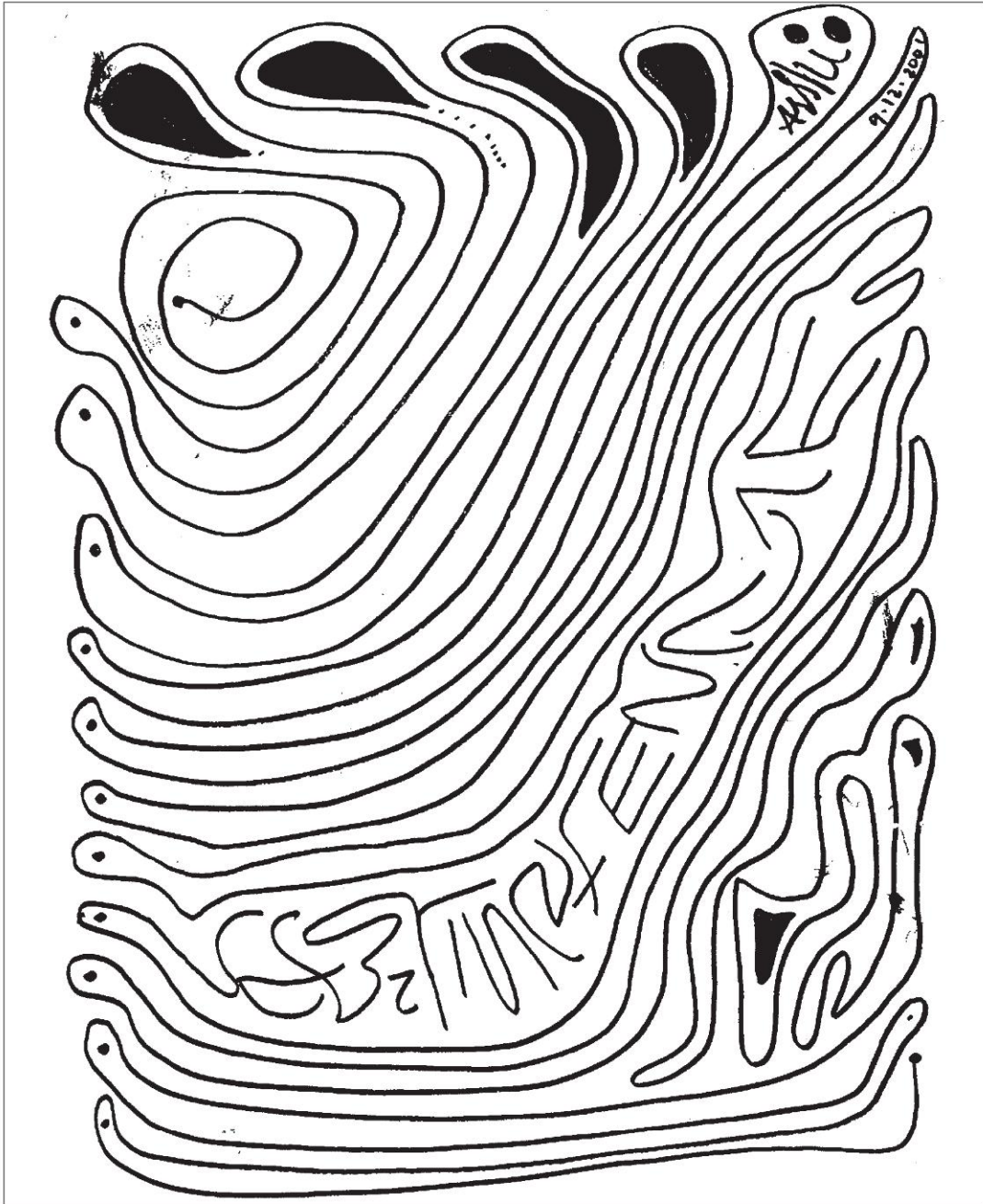
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# Techniques of Creative Problem Solving

- ▶ Techniques of Creativity
- ▶ The 'When' of Creativity Techniques
- ▶ Concluding Comments







In management, an important final stage is effective implementation of the finally selected solution. This is a complex process involving presentations, approvals, planning, developing an implementation mechanism such as a team, allocating responsibilities, monitoring the progress of implementing and making appropriate modifications, rewarding effective implementation, etc.

Let us now review creativity techniques and how they facilitate creative problem solving.

## TECHNIQUES OF CREATIVITY

Techniques of creativity can be grouped under 10 broad headings.

1. **Problem decomposition techniques** most real-life problems have multiple dimensions. In management problems, there is almost always an economic or commercial angle. But frequently there are other dimensions as well, such as a psychological angle—who approaches the problem with what attitudes, values, perceptions, beliefs, and motives. Then there is frequently a political or stakeholder angle—who would stand to gain or lose in power and status and money through the resolution of the problem. There is also a cultural dimension—with what widely shared norms and values in the organization would a solution have to be compatible. Similarly, there is frequently a policy dimension—with what policies and priorities would a solution have to be compatible. Decomposition techniques aim at identifying critically important dimensions so that the preferred solution is acceptable vis-à-vis these dimensions. Thus, decomposition techniques help channel the problem-solving effort in useful directions.
2. **Information search techniques** that help us get hold of the relevant information from people's memories. One way is to ask around at a workplace what past experiences are relevant to the problem situation in the organization or elsewhere. Thus, if there is an industrial relations problem, it helps to dredge up memories of other such problems and how they were tackled. Some techniques go about getting relevant information somewhat indirectly. For instance, people are asked around for analogies to the present situation. Parent–children conflicts at home and teacher–students conflicts at school resemble industrial relations conflicts in some ways. How these are tackled can provide useful insights into how industrial relations conflicts can be tackled.



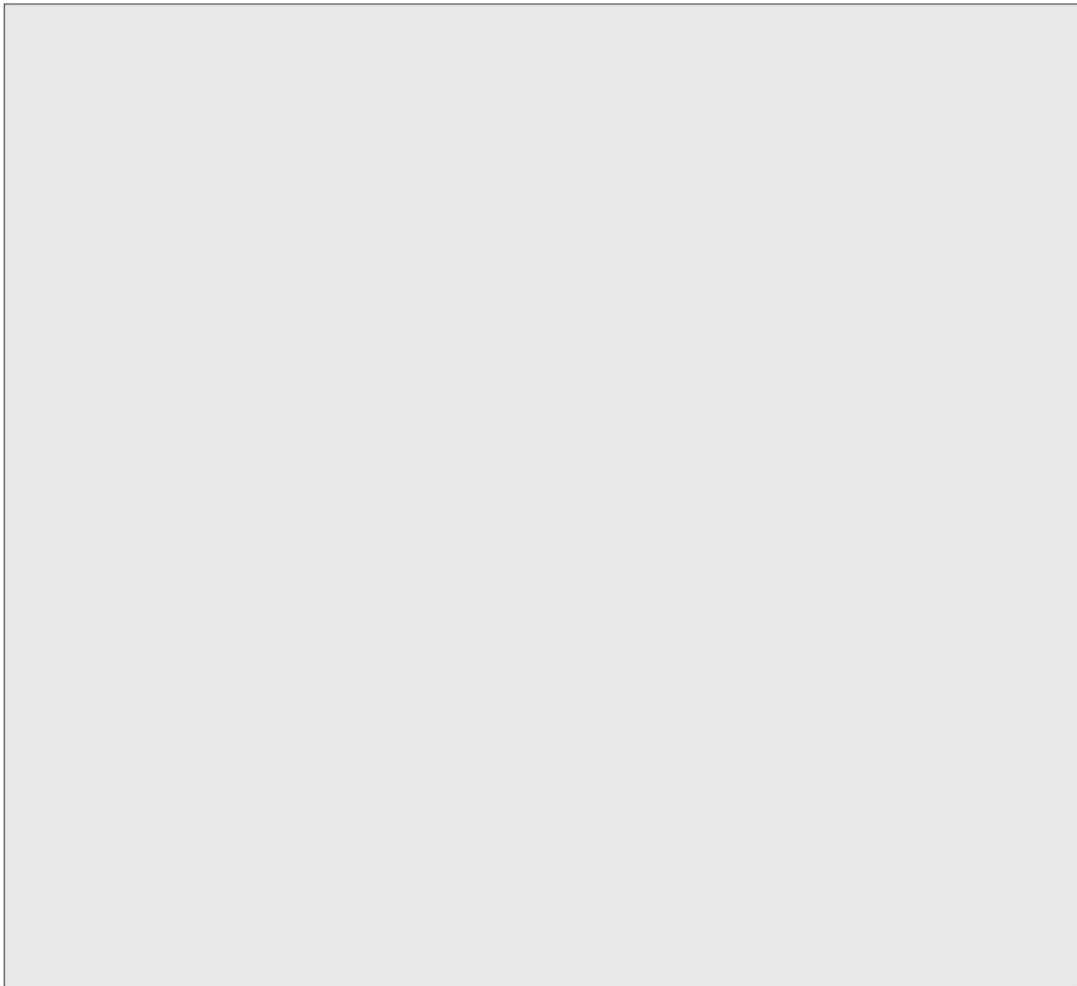
3. There are **techniques for breaking stereotyped responses** to problem solving situations. Such stereotyped responses represent in-the-box thinking. Stereotyped responses can be broken in several ways. Challenging one's explicit or implicit assumptions is one technique. In marketing, frequently managers assume that the customers know what they want. More often than not, this is an implicit assumption. But this sort of customer awareness can vary widely in any given product design situation. Questioning the implicit assumptions can open up many different ways of tackling customer ignorance (such as focus groups) before they are asked what they would want in the product and what they would be willing to pay for the trait.

Then there are **techniques of assumption variation**: what would happen if one assumption is deleted or replaced by another assumption; what, for example, would happen to sale and profits if the industry grows at 5% versus the assumed 10%, or the excise duties are 10% versus the assumed 5%?

4. **Unblocking techniques** are those that seek to eliminate or minimize the mental blocks that cloud perception and choice, such as high fear of failure, intolerance for ambiguity, fear of social disapproval, and fear of rejection by people close to us. These blocks colour how we perceive a problem and what options we consider. Since frequently we are not even aware that these blocks exist, it is difficult to deal with them. Techniques have been developed for unblocking. For example, the technique of sensitivity training is aimed at creating an atmosphere in a group situation where people feel comfortable about pointing out blocks they see in other members, and indeed, in themselves. Other techniques involve provoking problem-solvers to drop defensiveness, by taunting them, or imposing daunting deadlines or 'stretch' targets, or overloading them so that they would have to step out of the comfort zones in which they like to operate. Still others involve relaxing people so that creative ideas can slip past the block gates, such as through yoga and meditation, hypnosis, sleeping over a problem, vigorous physical exercise, or vigorous mental activity not related to the problem, like solving puzzles. Then there are techniques that defer evaluation and create an atmosphere in which people feel comfortable even in expressing crazy ideas (the technique of brainstorming is a well-known example of this). In one technique, people are rewarded for novel ideas and penalized for commonplace ideas. There is also a group technique called Delphi in which the identity of participants is hidden so that they can come out with 'crazy' ideas without the fear of being criticized by 'experts'. In another technique, a powerful block-breaking experience is planned, such as a well-to-do person, blind to

the misery of people, being asked to spend a day in a slum, or snobs having to work in a dairy to milk cows and clean up their dung.

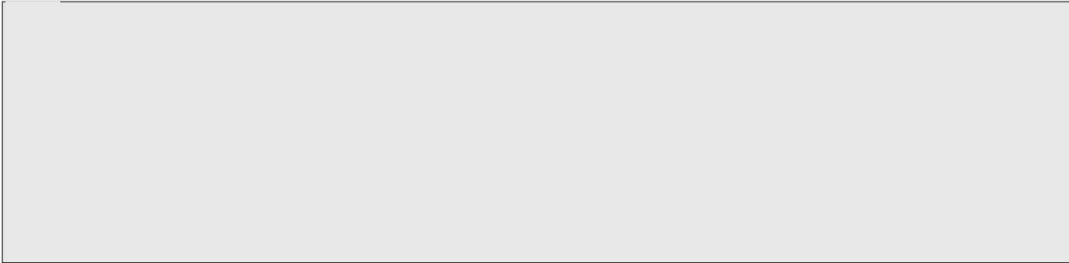
5. **Mutual stimulation/instigation techniques** involve sharing of 'crazy' ideas or provocative mutual questioning, as in questions checklist, discussed later.
6. **Imaging techniques** for imagining a situation in rich detail, or involving imaging of an innovation, or a what-if-I-were-X fantasy in which X can be an object as cold as a 'fatigued' jet flying six miles above sea level or as warm as an angry employee. See box on *How Imagery can Turn into Innovative Products*.



7. In **fusion techniques**, previously unrelated frames of references are unified into a new or novel perspective or frame of reference—see box on *Making Remote Associations Work*. For example, managers typically see workplace problems from a managerial perspective. Techniques for articulating the perspectives of other stakeholders—vendors, customers, unions, financial institutions, regulatory agencies, local communities—can provide useful new insights and approaches, and these can be integrated through some kind of points or weighting system. Another form is where traits of one thing are grafted onto another thing, such as the properties of a servant onto the properties of a computer (as in the technique of attributes changing or grafting, discussed later).

### **Making Remote Associations Work**

Sarnoff Mednick, a noted creativity researcher, has persuasively argued that uncommon associations of ideas is a rich source of originality.



8. **Ideating techniques** that emphasize generating a large number of ideas, such as by deferring evaluation and emphasizing quantity of ideas regardless of quality (e.g., brainstorming, discussed later).
9. In **extremization techniques**, people are invited to speculate on what would happen if a key assumption or variable is blown up outrageously—for example, what would happen if the price of crude oil collapses from \$ 25 to \$ 5 a barrel; or if China comes into the steel market pricing its steel at 50% of the prevailing price; or if the whole sales force of a company goes on a strike. In a variant, people may be asked for the ‘opposite’ of the current solution or practice—for example, what is a creative ‘opposite’ to promoting deserving people?
10. In **demolition or dialectical techniques**, an idea or approach that has worked or been found acceptable is aggressively shot down. In reverse brainstorming, for example, a strategy evolved through consensus, such as for a new product launch, is sought to be completely demolished. In the process, various overlooked weaknesses of the accepted strategy may come to light, which then can be rectified. In the debate variant, every proposition made by one party is negated by the other through logic or data, and only at the end a synthesis is attempted. Thus, a US company wanting to locate its R&D facilities in India may have an internal debate, in which one team plays an advocacy role and another plays an opposition role. At the end of the debate, rather than declaring a winner, a solution is synthesized that draws on the points made by both the adversary teams.

Let us discuss in greater detail some of the better-known techniques used by managers for finding creative solutions.

## **Brainstorming**

The term brainstorming has passed into common English usage. Invented by Alex Osborn, a versatile advertising executive, brainstorming has come now to mean freewheeling discussion. But freewheeling discussion is almost the opposite of the technique of brainstorming. In the technique, there is virtually no discussion, no evaluation or assessment or criticism, and no elaborations, explanations, or pontifications. Freewheeling discussion is frequently over issues that are poorly understood or variously interpreted. In brainstorming, the attempt is to define the problem clearly and make sure that everyone engaged in brainstorming has a shared understanding of what the problem is. Freewheeling discussion requires at least two parties; brainstorming is a group technique but it can also be employed by an individual. Freewheeling discussion is often dominated by the vocal and the powerful; brainstorming takes every precaution to avoid this.

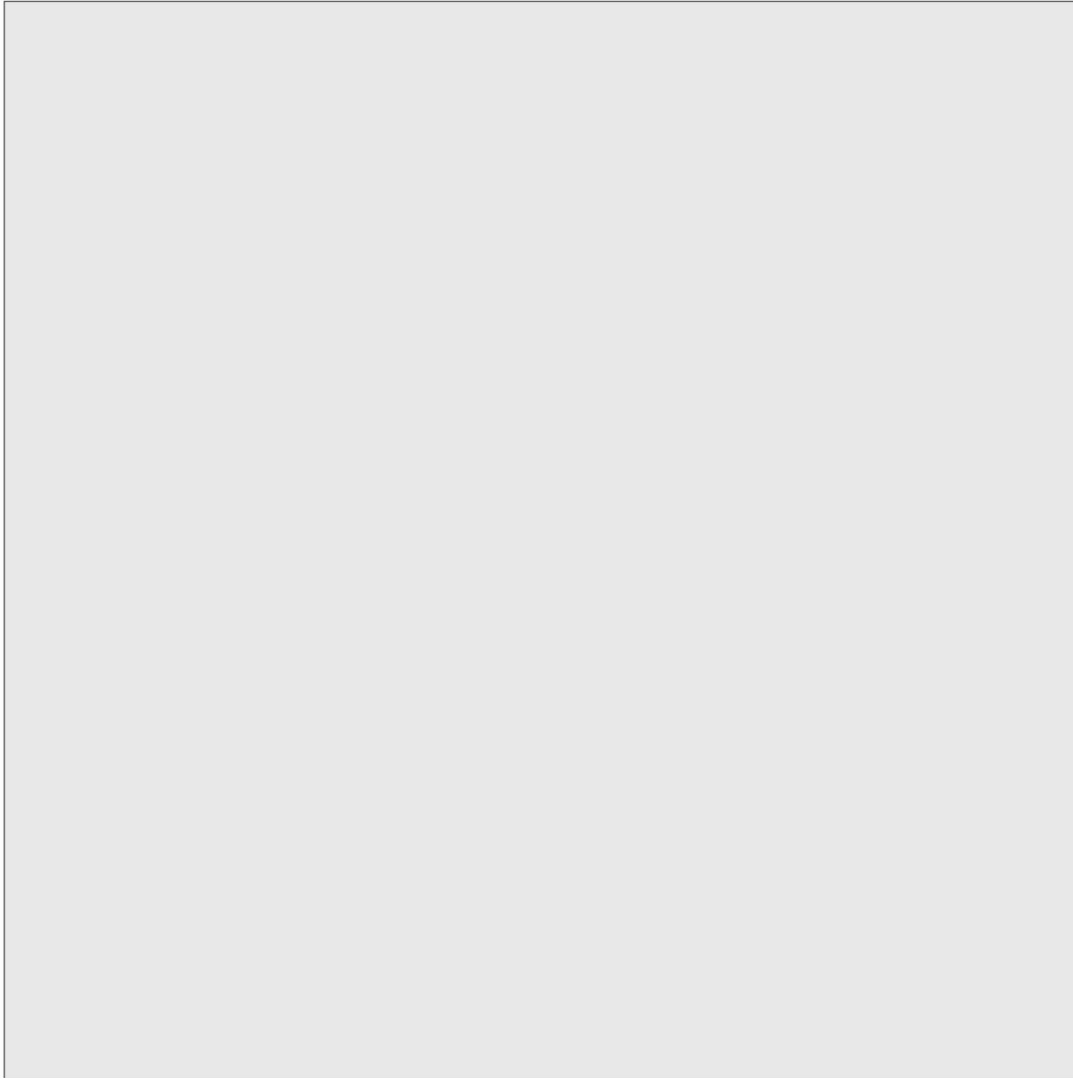
The principles of brainstorming as a technique are deceptively simple.

Typically, in a brainstorm, a specific problem is first introduced. The problem must be quite specific, and capable of many alternative solutions. Thus, one cannot brainstorm on a vague problem like how to increase productivity, nor on a problem with one right answer, such as what was worker productivity in the plant last month. But how to increase worker productivity by 30% in a particular plant is quite appropriate for brainstorming. Generally speaking, brainstorming problems are preceded by “how to .....”.

After the problem is stated and clarified, the brainstorm begins. Generally, each group member gives one idea at a time, and the group members give their ideas in turn. Just as with the brainstorm problem, the solution/suggestion must be specific and to the point. If any one tries to say, “You know, I think we need to consider a host of factors .....”, the group coordinator would immediately intervene and say, “Please just tell us what your suggestion is.” Vague suggestions like “We ought to improve communications” are ruled out. Instead, the suggestor would be requested to give one very specific suggestion by which communications could be improved.

Generally speaking, a brainstorm may go on for half-an hour to an hour, until such time as ideas cease coming. Every idea is recorded. At the end, it may be a good idea to categorize ideas in a sensible fashion, and select, through some sort of voting, the best potential (in terms of novelty and practicality) one or two ideas in each category.

Brainstorming is perhaps the most popular creativity technique.



Questions checklist as a technique was also invented by Alex Osborn.

Osborn listed a large number of questions, I believe the following are generally enough for generating highly novel and appropriate modifications:

What can we add to the PS?

What can we subtract or delete from the PS?

What aspect or component of the PS can we alter?

How can we rearrange the components of the PS?

How can we adapt the PS for other uses?

Can we magnify the PS or some property of the PS?

What could be the opposite of the PS?

Can we minify or miniaturize the PS or some key aspect of the PS, say its cost?

Does the PS have uses other than the present one?

Are there alternative ways or means of producing the PS?

The first letters of the underlined words yield the acronym ASARAMOMOA.

In my creativity workshops for managers, I have repeatedly found that ASARAMOMOA yields excellent results. Typically, I ask them to apply it to a current product, activity, programme, structure, strategy, or system. Simply asking provocative questions in a structured manner opens up exciting innovation possibilities.

### Attributes Changing

Every object or entity, living or non-living, has at least some attributes. Some of these attributes define the entity, and changing them may eliminate the entity. If the seat is removed from a chair, the latter ceases to be a chair, since seating capability is the defining property of a chair. But plenty of other attributes of a chair can be altered—its colour, the length and number of its feet, its material, weight, size, comfort, etc. There is, therefore, a huge potential for modifying a chair and coming up with different designs. Also, attributes of many other entities can be grafted on to a chair. For instance, a flatboard can be added to graft on to the chair the ‘writing on’ capability of a table; wheels or casters can be added to graft on to the chair the mobility of vehicles or skates; a pivot can be grafted on to it so as to give it a see-saw’s ability to change elevations; and so forth. According to Robert Crawford, inventor of attributes listing or changing, a good deal of practical, applied creativity we see all around us—products, processes, procedures, systems, and so on—is the consequence of changing



modifiable attributes, and/or grafting the attributes of one entity on to another.

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process can yield a very large number of configurations. Suppose we select four attributes of a current product, say material, size, strength, and durability, and identify four interesting alternatives for each attribute. How many reconfigurations of the product have we generated? A staggering 256 ( $4^4$ )! Morphological analysis is a powerful technique for generating a large number of alternative designs in a hurry. Thereafter, cost, profit, or other appropriate criteria can be employed to identify a few radical designs that are exotic and viable.

### **Synectics**

The technique of synectics invented by William Gordon proceeds by alternately making the familiar strange and the strange familiar.

find an analogy for the point under discussion from some other field, something called a direct analogy. Nature is a great resource for these direct analogies. Thus, if the point under discussion is unreliability of equipment, someone may identify weak digestion as a direct analogy.

When the group gets into a rut, the coordinator may try and get people to engage in imaginative divergent thinking in the form of fantasizing. Group members are asked to fantasize without worrying about real life constraints. This way, someone may fantasize a solution blocked earlier by reality considerations. As an example, group members may be asked to fantasize about how one could conquer the world or win a Nobel prize. An alternative fantasy takes the form of a 'personal analogy'. The individual is asked to project his/her self into an entity or a situation and report what he/she hears, feels, sees, experiences, etc. Thus, the leader may say, "Now let us imagine ourselves to be a virus strain...how does it feel to be a virus strain?" Somebody may say, "I am curled up like a screw"; another may say, "I feel itchy"; a third may say, "I want to kill".

When an excursion has gone on for a while, the leader may ask for a 'book title', that is a short, imaginative, poetic, or paradoxical title for the discussion. For a discussion involving how a virus operates, book titles can be 'Warm Hate', 'Indifferent Destruction', or 'Compulsive Indifference'. Provocative book titles can launch a further exploration such as a direct analogy for one of them, or a fantasy or personal analogy about it, and so forth.

A time may come when someone glimpses a potential breakthrough for the original problem. The leader may then call for a 'force fit'. The leader may ask how the present discussion could suggest an insightful solution to the original problem. In one synectics session, for instance, the original problem was how to estimate oil reserves deep underground, and the excursion was about the temperament of cats. Someone said that an angry cat can be calmed down by stroking it. This led a member to make a force fit by saying that if the oil in the core sample is frozen by a coolant, it can be brought up without change in its physical or chemical composition, and this can help in a more accurate estimate of the reserves deep underground. Since this was a plausible insight, it was considered a 'viewpoint' for analysis by a technical group.

Despite its strangeness, synectics has been used for finding potential solutions for a variety of technical as well as human relationship problems, and many large American corporations like Kimberly Clark, Western Electric, Johnson and Johnson, IBM, and General Electric have availed of it.

## Breakthrough

Breakthrough is a technique I have developed. I have incorporated into it the mechanisms of several other techniques, particularly brainstorming, synectics, and questions checklist. I have tried it out in management group problem-solving situations with good results. The technique works as follows.

1. A management problem is shared with group members.
2. Each member is requested to interpret it: "I see the problem as..." These interpretations are shared. This step shows everyone the many different ways in which a management problem can be perceived or interpreted. Members are encouraged to use graphic, evocative language in the interpretation of the problem. For example, in a management problem involving the exodus of young MBAs after intensive 3–4 years training from a corporate group based in Mumbai, some of the interpretations were: very long and tedious ladder; treasure hunt by the MBAs; marriage barrier in Mumbai; and corporate leukemia.
3. The group then identifies the stakeholders in the problem, that is, the parties who contribute to the problem or are affected by it. In the MBA exodus problem, the stakeholders identified were the MBA recruits, the personnel department, corporate management, non-MBA recruits who were actual or potential competitors of the MBAs, the companies absorbing the MBAs leaving the company, the business schools training the MBAs, and the parents of the MBAs. Such an identification of stakeholders shows all the group members how multi-dimensional a management problem can be.
4. Small teams are formed, one for each identified stakeholder. Each team defines the problem from the perspective of the stakeholder it represents: "We see the problem as..." The new definitions of the problem are shared with the group. This step greatly enriches the understanding of the problem by the group members. In the MBA exodus problem, some of the stakeholder problem definitions were: erosion in the credibility of business schools training the MBAs; fear in the companies hiring the MBAs leaving the corporate group that the MBAs may ditch them in turn and possibly join or become competitors; the fear of corporate management that the MBAs leaving the company may share proprietary knowledge with rivals; and the fear of MBAs that they would get stuck in the corporate bureaucracy for a long period before they could head profit centres or strategic business units (SBUs).

5. Now each group member is asked to restate the problem: “How to...” These restatements are shared, and the group decides on taking up one or two problem restatements (with modifications considered necessary) for brainstorming.
6. Once brainstorming yields a large number of potential solutions, the latter are classified, and solutions in each class are voted upon to select the best solution that is both novel and potentially effective.
7. Each selected high potential solution is subjected to the questions checklist—what can we add to it, delete from it, etc. to strengthen it.
8. Each ‘finalized’ solution is subjected to reverse brainstorming, that is, brainstorming on why it would not work. Reverse brainstorming yields overlooked weaknesses, unrealistic or false assumptions, etc.
9. As a final step, small teams are formed. Each team develops the ‘finalized’ solution assigned to it keeping in mind the objections raised in step 8. These revised solutions are shared with the whole group and refined as appropriate.

The technique is somewhat time consuming; it can take 2 to 3 hours. It is best used for complex, multi-dimensional management problems. As with brainstorming, computer networks can greatly increase participation and speed up each step.

## THE ‘WHEN’ OF CREATIVITY TECHNIQUES

We have discussed in some detail six different creativity techniques. Which should be used when? **Attributes changing**, **morphological analysis**, and **questions checklist** are most useful when there is a product, process, system, or solution ‘in hand’. These techniques are primarily oriented towards creative modifications. They are aimed at ‘elaborative’ creativity. **Brainstorming**, on the other hand, can be used even when a solution is not ‘in hand’, and the search is for alternative ways of achieving a goal or doing something. Brainstorming is not very effective for complex, multi-dimensional problems. It is most useful for those problems that are relatively structured and straightforward and can be solved in many different ways, such as how to motivate salesmen, or how to improve product quality, or how to improve the image of the organization. **Synectics** is useful when the problem is truly complex with no simple solution in sight. It is aimed at producing ‘essence’ creativity. Interestingly, synectics has been used effectively in complex technical problems where a

very fresh or original, scientific discovery type solution is required. It works best not when potential solutions are many but when they are few but difficult to identify. But it is a difficult technique to practice in the absence of expert help. **Breakthrough** fills this gap, especially in complex, multi-dimensional management problems in which simplistic solutions have not worked well.

### CONCLUDING COMMENTS

*Two important points need to be kept in mind in using any technique. Firstly, a technique is a set of fairly invariant sequence of steps for getting to a solution or a desired outcome. A technique tends to get more efficient over time if the steps and their sequence get tested out and are found generally to yield desired results. Over time a technique tends, therefore, to become more precise, more efficient, but also more inflexible. This efficiency is sometimes at odds with the technique's applicability to varying situations. Modifications need to be improvised to increase the range of situations to which the technique is applicable.*

*Secondly, a technique needs to be based on sound principles. When a technique is based only on practice that is found to have worked, and not on an understanding of why it works, large gains in efficiency as well as flexibility may be sacrificed. Rote learning, utilized widely as a pedagogical tool over the centuries, has had this problem. Since how learning takes place was not well understood, rote learning could not cope with the learning needs of modern times, and had to be more or less abandoned in favour of other, 'why'-based learning pedagogies such as experiential learning, insight learning, programmed learning, project work-based learning, teacher-student interactive learning, and so forth that are more efficient and more flexible.*

*In using creativity techniques, therefore, the focus should be not just on the 'how it works' aspect, but also on its modifiability and on why it works. Armed with the knowledge of why a technique works the way it does, the technique can be modified and custom-tailored to the needs of the organizational situation.*

*Finally, techniques of creativity typically yield fresh ideas. Seemingly, they yield only essence creativity (see Chapter 1 for a discussion of six different forms of management creativity). This need not be true. They can also be made to contribute to other forms of management creativity. As an example, suppose the issue before a management is how to globalise the company's operations. Brainstorming by a group of managers can be used to yield some fresh ideas on how to globalise operations (essence creativity). When each of the selected high potential, novel ideas generated at the brainstorm is entrusted to a cross-functional*

team for further development, the team can brainstorm on how to add value to the idea, how to contextualise it innovatively, how to delete negative features, etc. and thus augment elaborative creativity. The cross-functional team authoring the 'concept paper' for presentation to the management can brainstorm on how to make the presentation more attractively phrased, illustrated, and conveyed. This way brainstorming can contribute to expressive creativity. If the management accepts the proposal, it would need to be implemented. Brainstorming at this stage can yield a number of consequential offbeat initiatives that can now be taken up, and thus yield entrepreneurial or venture creativity. For each initiative, brainstorming can yield fresh ways of involving and benefiting the internal and external stakeholders of the initiative to yield existential and empowerment creativities. Thus, brainstorming, as also the other creativity techniques discussed in this chapter, can be appropriately leveraged to yield (or contribute to) all forms of management creativity.

**? QUIZ**

Assess the following statements:

- 1 All creativity techniques are aimed at producing novel ideas.  
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- 2 Evaluation is taboo in all creativity techniques.  
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- 3 With so many creativity techniques floating around, it is not possible to devise any new ones.  
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- 4 Brainstorming is the best creativity technique.  
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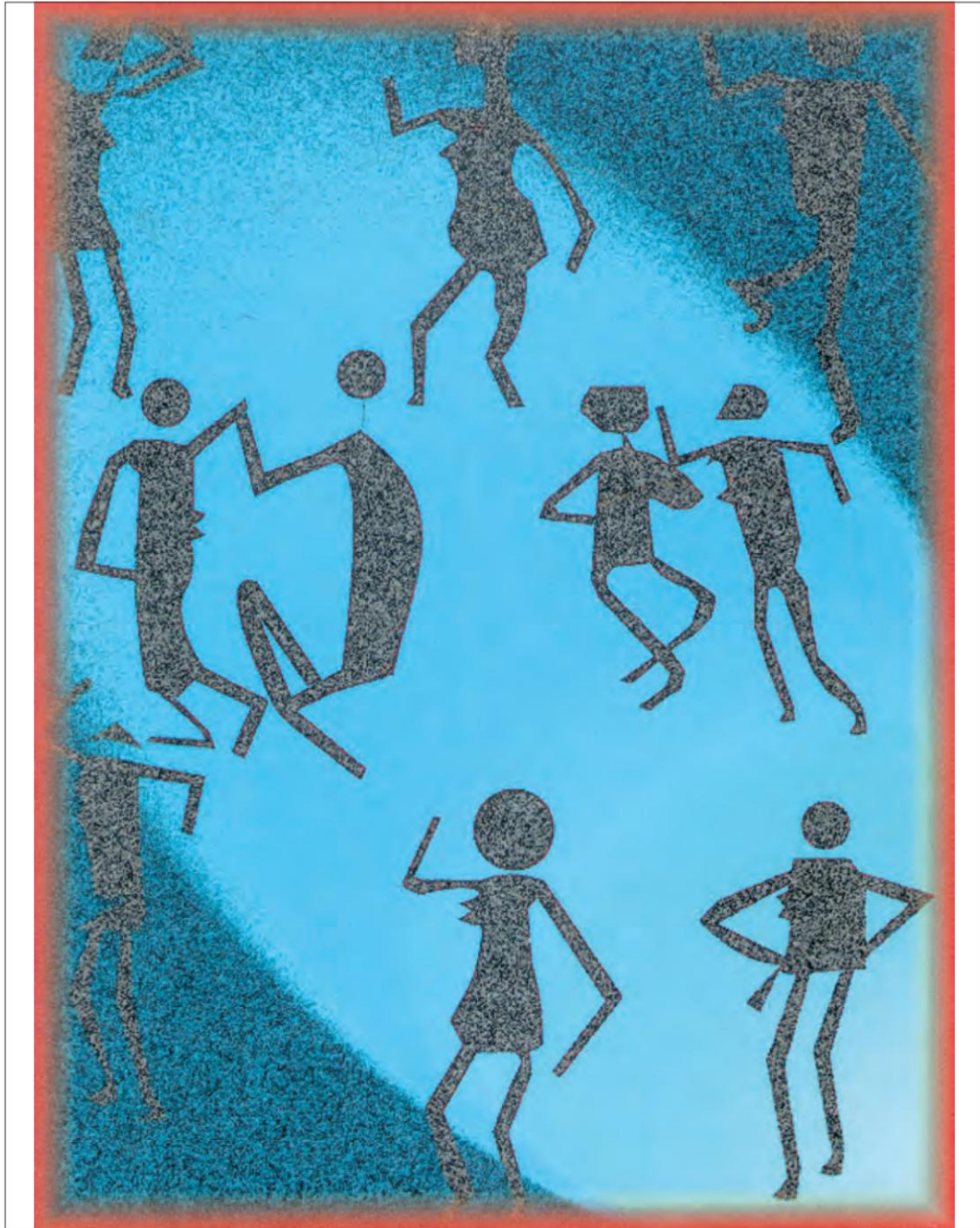
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# Creative Encounters and Creative Teams

- The Structure of Interpersonal Relations
- The Anatomy of Unsatisfactory Encounters
- Tools of Creative Interaction
- Effective Teams
- Creative Teams
- Temporary Teams
- Self Diagnosis
- Concluding Comments



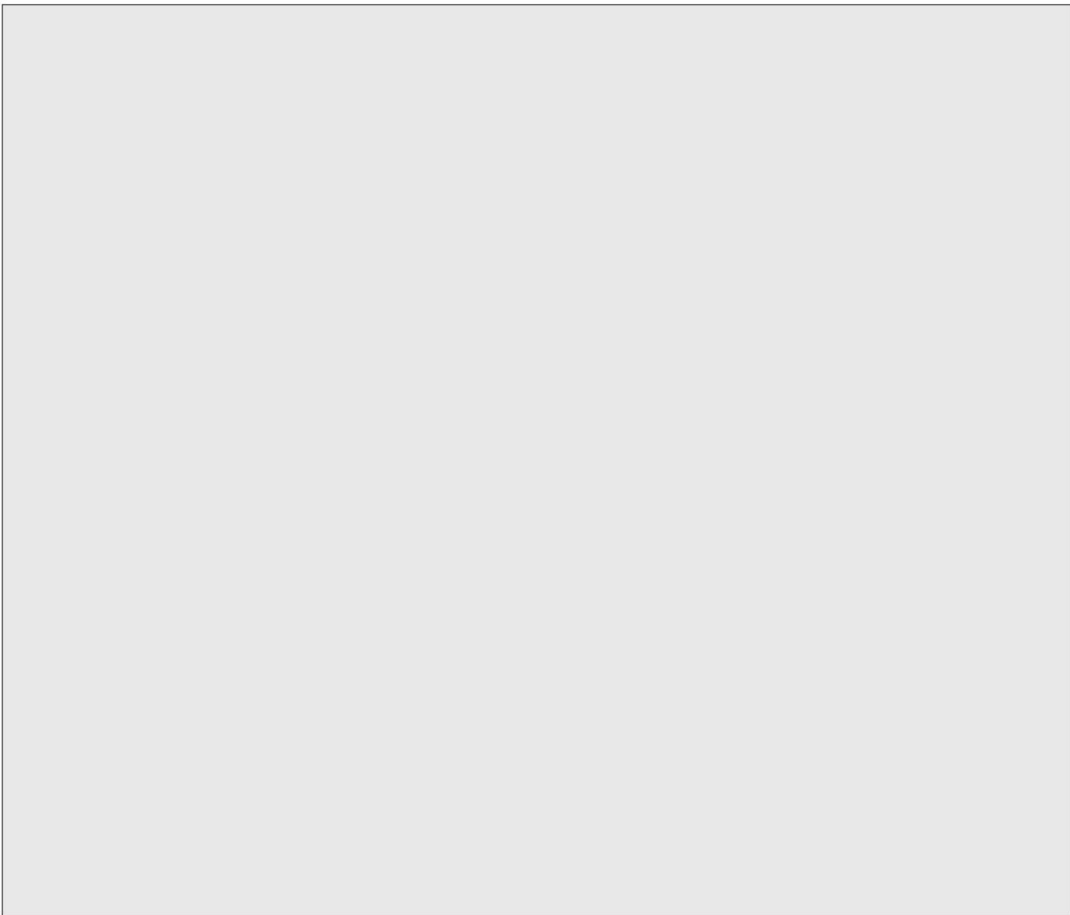


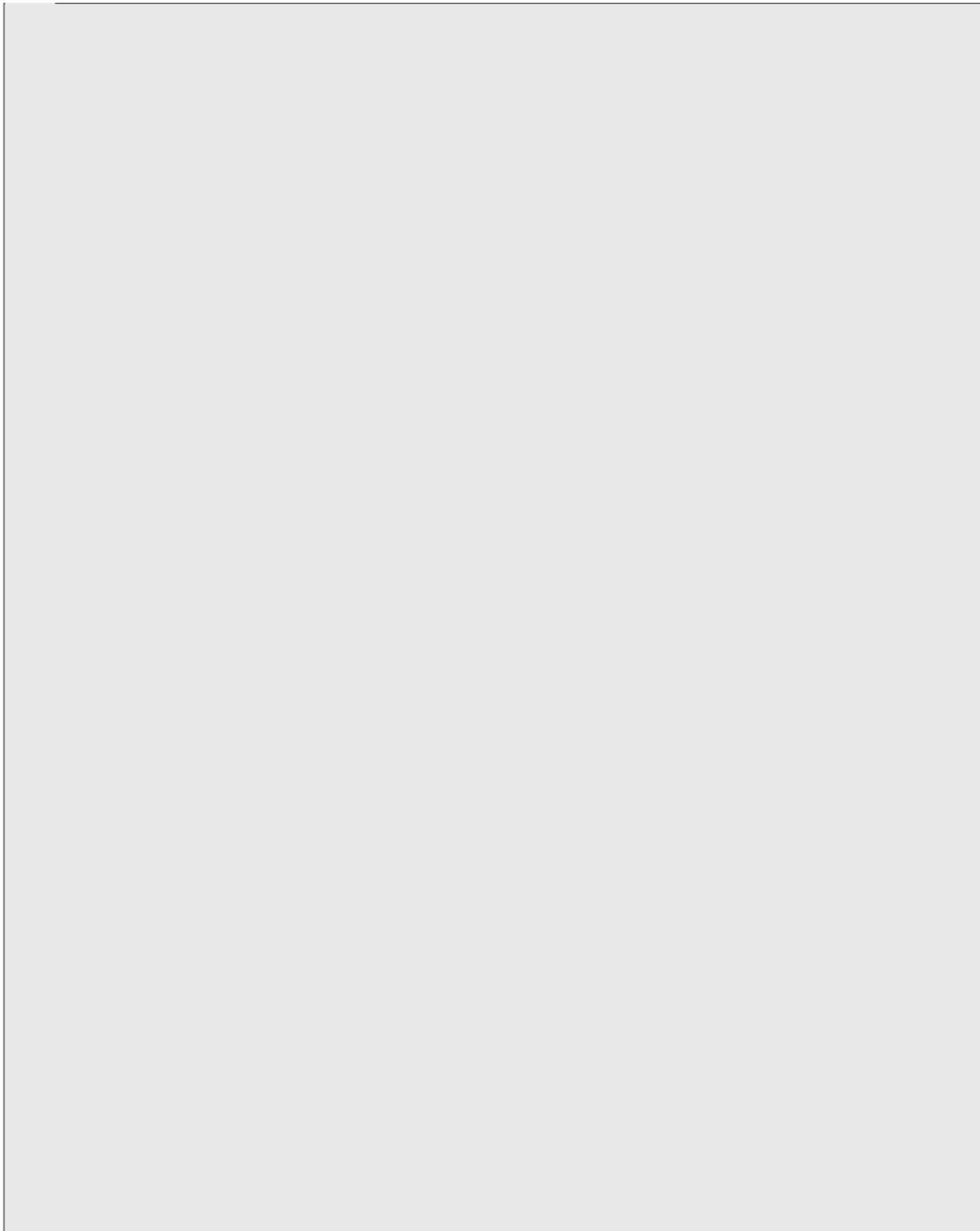
As many men, so many minds



**Mutually Satisfying Interactions**

Both parties feel they have got more out of the interaction than what they had to give. Both feel like ‘winners’. Creative interactions are of this kind. Although all ‘win-win’ interactions are not necessarily creative, most creative interactions are of ‘win-win’ type. In a creative interaction, one or both parties see a *new point of view* or get a *new idea* or *insight* or understand a *new way* of doing something that is not merely new but also effective. Any or all of essence, elaborative, expressive, entrepreneurial, existential, or empowerment creativities may elevate creative encounters. These interactions pave the way for even more satisfying future interactions between the ‘winners’. The box on *Creative Moral Dialogues* gives several examples of morally transforming dialogues, some that have profoundly shaped mankind.





## THE ANATOMY OF UNSATISFACTORY ENCOUNTERS

Why do so many encounters go sour? There may be a number of reasons, connected with the interaction situation, the motives of the parties, and the absence of certain skills.

### **Situation**

In situations where there is a conflict of interest but only the one with power can 'win', the probability of an unhappy encounter is high. Common examples are an employer sacking an employee or a teacher failing a student or a parent punishing a child. The power asymmetry is so great that the weaker side has virtually no redress. There are other situations where neither can win. Each move by a party is seen as antagonistic by the other, and vice versa, and the sequence of responses leads to frustration for both (or all) the parties to the encounter. The situation is one where both parties have a sharp conflict of interest *and* the power to retaliate. Game theorists have called these 'zero sum' situations.



## **Skills**

A number of skills help productive interaction, and their absence can promote an unsatisfactory interaction. A skill of great importance for a creative interaction is the ability to spot opportunities for mutual benefit, in a situation in which the parties have a strong conflict of interest. In olden days, rivalrous kings used to resort to a marital alliance to create a powerful joint force to defend themselves from other aggressive monarchs; kings of corporations nowadays resort to joint ventures for a similar purpose. The ability to take a long-term view of the situation, in which possibilities of mutual benefit may emerge even if they are not currently there, also helps. Captains of industry, otherwise at loggerheads, frequently band together to create an industry association in everyone's long-term interest. It is not, of course, enough to spot mutually beneficial opportunities. It is also necessary to communicate these to the other parties in the encounter who may not be aware of these, or may view them with scepticism. The ability to build up credibility and trust—by being serviceable and honest—is vital. The ability to arouse in others the sublime—without losing track of their mundane needs—is a powerful ability that accounts for a lot of the success of able change agents and negotiators. The skills of being a good listener, being empathic, helping the interacting parties to clarify their needs and arrive at a consensus, and equally, the ability to change their perspectives by thought-provoking questions, analogies, facts, etc. are also very important.

The following vignette of a group interaction illustrates some of these skills. The group consisted of a team of bank managers and probationers and Dr. Raj Gautam, a trainer-consultant. The group was attempting to learn to function more effectively.

- Mehta** *Let's get on with it! We're not getting anywhere.*
- Ranade** *Majority rules. We'll work on mistakes in advices ...*
- Gautam** *Since we are trying to understand better the nature of leadership and group process, as well as solving particular banking-related problems, may I intervene at this point? Behavioural scientists agree that the democratic process of majority vote is generally better for obtaining personal commitment than, say, an autocratic choice by the boss...*
- Ranade** *That's what I just said...majority rules...we'll work on mistakes ...*
- Gautam** *But majority rule, although useful for saving time, is not always the best way...*
- Mehta** *What is the alternative?*
- Gautam** *Consensus. Although slower to get at, it may prove to be better than majority rule.*
- Mehta** *I don't see the difference.*
- Gautam** *Consensus involves working out differences to arrive finally at a decision, whereas the majority vote can arbitrarily cut off all objections, reasonable or not, at a fixed point in time. This may dilute further involvement or commitment of someone whose views have been overruled or denied expression.*
- Ranade** *My God! You mean we have to get everyone to agree before we get going? We'll be completely paralysed!*
- Mehta** *Exactly what are the implications of consensus to group progress, Dr. Gautam?*
- Gautam** *Not quite so bad as I may have made them appear. Your straw vote was useful—it showed where the majority stood on the issue. My only concern is that the minority should not now be arbitrarily shut off.*
- Ranade** *You mean we keep discussing until we all agree to Iyer's point of view?*
- Gautam** *Not necessarily, although that could happen. We're not under any severe time pressure. I prefer to see consensus within the group before moving on, than to have us work on a democratically chosen problem without the full and active support of several persons.*
- Mehta** *I am a little confused. What is my role as the leader?*
- Gautam** *I would ask the group what they think.*
- Mehta** *Okay (to group), where do we go from here?*
- Singh** *I am still with Iyer, but I do see that perhaps we will have difficulty addressing ourselves to a problem as complex and vague as communication unless we break it down in some way. Perhaps we should ask our two members who voted for reducing absenteeism for their comments.*
- Iyer** *I agree with Singh.*
- Mehta** *Fine. Who voted for working on the absenteeism problem? (Gupta and Sen raise hands)*
- Ranade** *Well, what do you say, Gupta? Are you going to join us?*
- Gupta** *The group certainly has my support. I'm sorry, I did not want to hold up progress. It's just that I feel so strongly about the absenteeism problem...*
- Mehta** *Not at all, Gupta. We all share your sentiments.*
- Ranade** *Gupta, you can still make your points about absenteeism, as I am going to.*
- Sen** *I am rather new. I don't really mind working on mistakes in advices.*
- Mehta** *(Summarizing) It looks as if we have actually reached a consensus that this group will work on the problem of mistakes in advices to account holders.*
- Ranade** *Dr. Gautam, is this what you meant by working out differences in arriving at a decision?*
- Gautam** *Essentially. It took a few minutes longer but the group may now on make better progress...and with everyone's active support.*

- Sen** *We really work well together!*
- Gautam** *You do (winking). For all practical purposes I might as well go home. Can we get a little more clarity on the problem of mistakes in advices to account holders?*
- Mehta** *Well, every day we make 10 to 15 such mistakes. Such mistakes annoy our customers and also raise audit queries. Tracking them down and rectifying them is time consuming.*
- Gautam** *Yes, I feel a bit clearer now. Now can we brainstorm on ways to tackle the problem?*

Gautam's interventions are worth noticing. He did not take sides vis-à-vis the problem the group was to discuss—indeed, he kept a low profile. His intervention was to restructure the procedure for selecting the problem for group discussion. He helped the group avoid what may be called a dominated interaction, and he facilitated what looks like a mutually satisfying or 'win-win' interaction by his message of a more effective way of dealing with conflict—namely, a fuller exploration of the needs and viewpoints of the dissenters. Notice also his factual, non-belligerent, and non-evaluative mode of speaking. Finally, notice that he deferred brainstorming until everybody agreed on what problem to tackle and what its dimensions were.

Let us now take a closer look at the tools of creative interaction.

## TOOLS OF CREATIVE INTERACTION

There are several ways to increase the likelihood of creative rather than destructive or unsatisfactory interactions in a situation where one or more parties has or have something on their mind.

### Effective Listening

Lending one's ears wholly to others is an important first step.

expressed his/her feelings, got matters off the chest, so to speak, he/she is more likely to be receptive to logic and rational exploration of the problem.

### **Empathy**

A major barrier to effective interaction is premature evaluation of what a person is saying. The principle of brainstorming, i.e., do not evaluate while ideating, is useful here. Suspend your critical faculties while the other person is struggling to express himself. Receive rather than reject. Better still, empathize with his situation, put yourself into his shoes. To listen with empathy is, as Carl Rogers, the psychotherapist, put it, to see the expressed idea and attitude from the other person's point of view, to sense how it feels to him, to achieve his frame of reference in regard to the thing he is talking about.

## Evocative Questions

Questions can be hostile, designed to ferret out the truth or trap the other person, or they can be creative, *evoking* from the other person his own ideas and experiences that can lead to creative solutions. For example, “Are you sure this is the right way of doing this job?” is a threatening question. It is likely to elicit either a defensive or an aggressive response. But, “Could there be other ways of doing this?” is likely to evoke a brainstorming type of response, for the person will feel encouraged to explore and come up with even unconventional alternatives that, with some refinement, could well turn out to be highly effective.

Sometimes a person may get stuck in a groove. He or she needs to be able to see the problem from a fresh perspective. A groove-shattering question can be: “Under what circumstances would you be willing to change your mind?” Others may be, “What could be a point of view that is opposite to yours? What are the arguments in its favour?” Extremizing the problem can also help sometimes; for example, “What do you think we could do if the company’s sales fall off to half the current level?”

## Analogies

A person can see a problem from a fresh perspective with the help of analogies. In synectics, a number of mind-energizing analogies are sought. For example, if a problem concerns engineering, analogies from biology may be sought. Personal analogies can also be very useful as also punchy, creative labels of situations. Thus, during an interaction in which a solution to a difficult industrial relations problem is attempted, provocative questions such as “I wonder if there is a situation somewhere that parallels our predicament,” or “Let us put ourselves into the shoes of the union leader—how do you now see the situation and what are your feelings about it?” or “I wonder what arresting title we could give to this mess if we were to write it up as a story” may energize an original point of view.

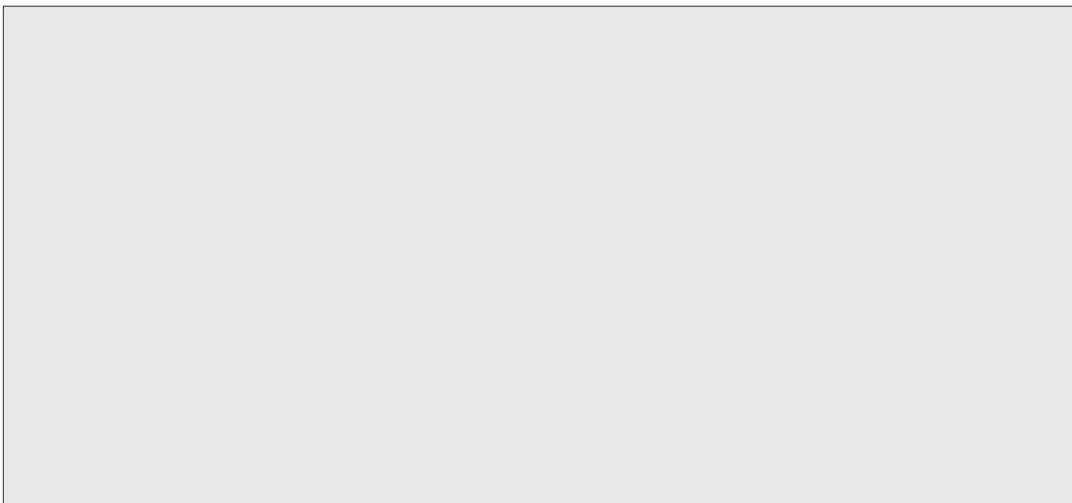
## Converging to a Solution or Conclusion

Steps 1, 2, 3, and 4 above help the other person articulate his/her problem more clearly (i.e., define it), and make him/her more receptive to creative solutions. Steps 5 and 6 can help the person engage in divergent, creative thinking. It is often useful to help the other person get a sense of closure or conclusion by helping him move towards a satisfactory choice. Help with frank feedback and information, help in evolving criteria for evaluating alternatives, applying these criteria to the alternatives, trading off between criteria should there be a conflict, planning actions that will increase the probability of successful execution of the chosen alternative, and so on, may be very useful in this phase of interpersonal interaction.

## EFFECTIVE TEAMS

Many family, social, and organizational tasks are accomplished by teams. When a birthday party for the latest addition to the family is to be celebrated, the whole family functions as a team. Sports such as cricket, hockey, baseball, and football are played by teams. The government often appoints teams—commissions of inquiry—of eminent persons to ‘go into a question’ and make recommendations or arrive at a judgement. Organizations use teams and task forces for specific missions and the more effective leaders of departments like to turn their staffs into teams. In research labs, teams of scientists pursue a discovery or an innovation. Teams are created to pool the talent, energy, and initiative of several persons so that this group of persons can achieve what may be very difficult for individuals to achieve alone. Our concern is with creative teams; but first let us see what it takes to have effectively functioning teams.

A group—formal or informal—is not a team if there is no teamwork. A section or a department, though it consists of people that interact with one another, is not necessarily a team. It has to be turned into a team (see the box on *Turning a Department into an Effective Team*). Nor is an informal group, such as people gathered around an ice-cream vendor, necessarily a team. For a group to be a team, the members must work as a team because they share values and purpose. For it to be an effective team, it also needs skills and resources relevant to the purpose; structure, roles, and rules that help it operate relatively smoothly; leadership; and certain effective processes.



the like. But from the beginning the editor of the page adopted a fresh stance. Articles might be devoted, say, to swings in fashion, but the subject would be looked at from sociological, humanistic, psychological, as well as commercial angles. The subjects were topical and written in a reader-friendly manner, but the treatment was multi-angled and probed beneath the surface, with the result that the readership of the page cut across age, gender, and occupational divisions. The page frequently featured interviews with internationally acclaimed experts on the subject at hand. Indeed, some of the article series were published as paperbacks to meet readers' demand.

How was this achieved? Göran Ekvall and Ylva Tångeberg-Andersson studied this team. They interviewed key players and also used a questionnaire.

The editor's vision—one that was widely shared in the team—was to reflect the diversity and multi-faceted complexity of contemporary life and also to highlight the many opportunities it afforded. To pursue this vision, the editor invited a diversity of opinions and perspectives and encouraged recourse to both soft and hard data. At the same time, care was taken to keep the topic and the context in focus. Since the page was aimed at everyone, care was taken to write as lucidly as possible. To ensure that the views of the interviewees were correctly portrayed, the transcript of the interview as well as the article were provided to the interviewee before publication for corrections, etc.

The editor was seen by the team members as a reliable, highly capable professional journalist, democratic without being weak or sloppy, and with considerable clout with the management of the newspaper. They saw her as giving them considerable freedom, and yet one who discussed each article with the author in depth before its publication to ensure quality and coherence. Although the team members shared the vision for the page and the basic values practised in its compilation, there was no attempt to ensure any sort of ideological uniformity or political correctness. Interpersonal rivalry seemed to be minimal, and maturity level high, and there appeared to be a good deal of teamwork. The subjects for the page were decided consensually at editorial meetings. Every member's role was determined by her temperament and interests. There was minimum bureaucracy, and in fact, no administrative staff at all. All this in a company that on the whole was conservative and hierarchic in structure and spirit! But then the company, too, was embedded in a wider culture known for its democratic temper, tolerance of dissent, humaneness, and commitment to a high quality of life.

Let us now look at the ingredients of an effective team.

### **Shared Values and Purpose**

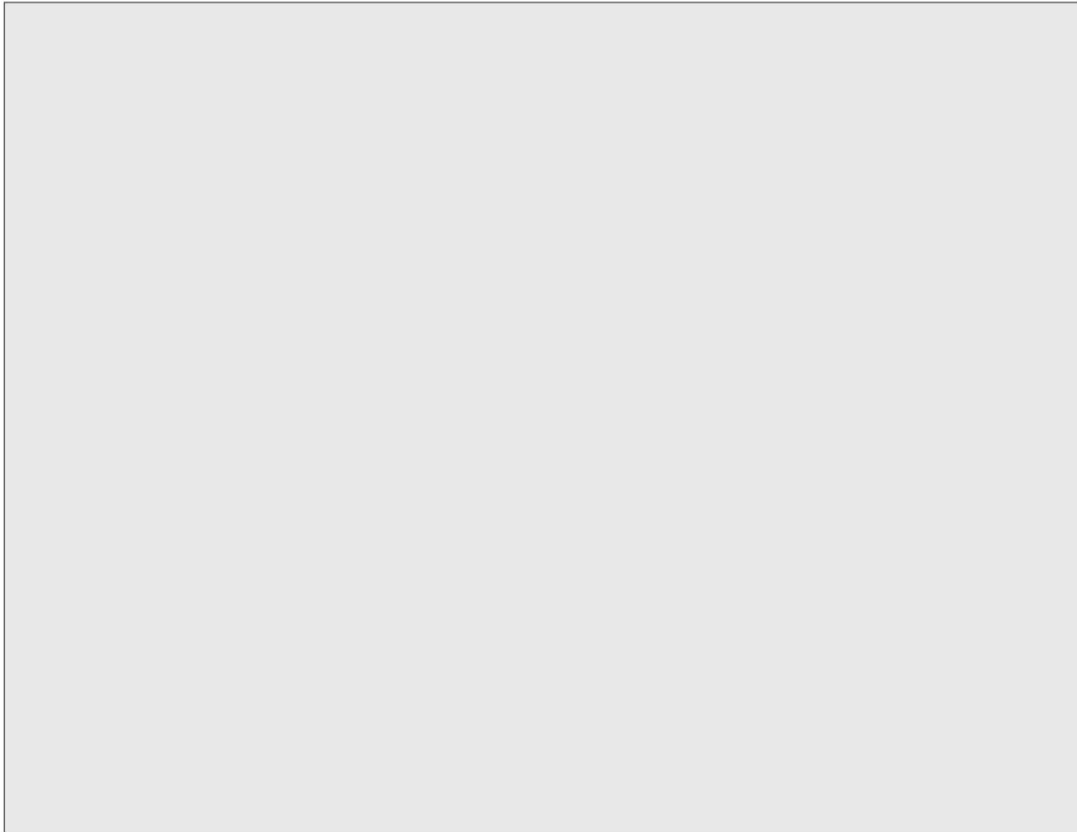
Broadly speaking, teams work well when members share an ideology. An ideology consists of connected values. There can be several operating ideologies. One ideology is democratic functioning—freedom and autonomy of members, their participation in decision making, equality, etc. Another is benevolent authoritarianism—a strong leader with absolute authority who, however, exercises it for the objectives of the team and for the benefit of its members. A third ideology is service-mindedness—the team operates to serve humanity or some chunk of it. The point is that when members share certain core values, teamwork is likely to be excellent and members are likely to put their heart and soul into the team's work.



consensus creator, harmonizer, or synthesizer. Then there is the executive or managerial role of agenda setting, implementation of decisions, and control and coordination. These roles need not be played by different individuals or specially designated individuals, so long as they are played.

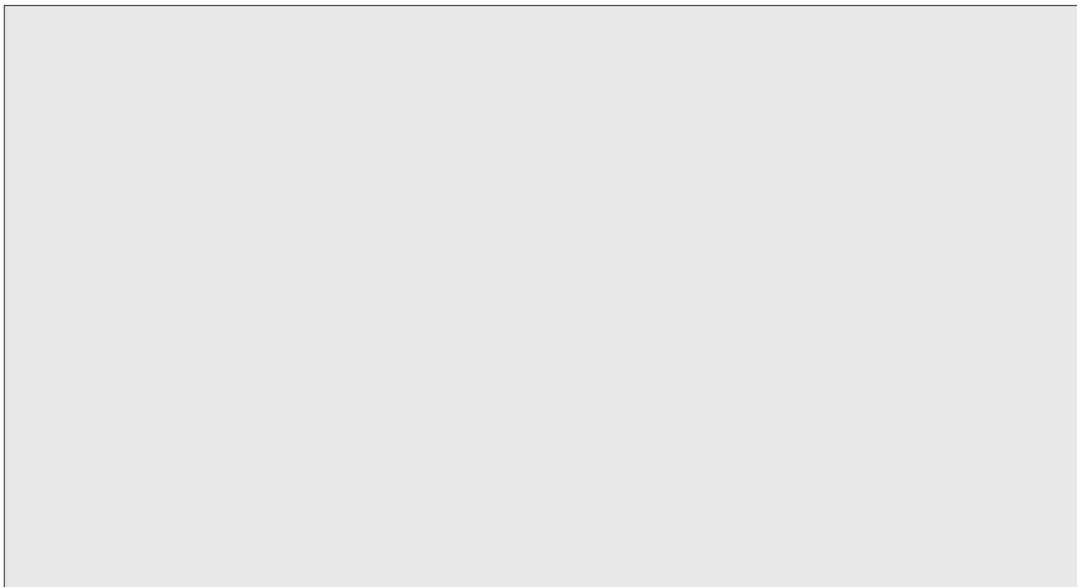
### **Leadership**

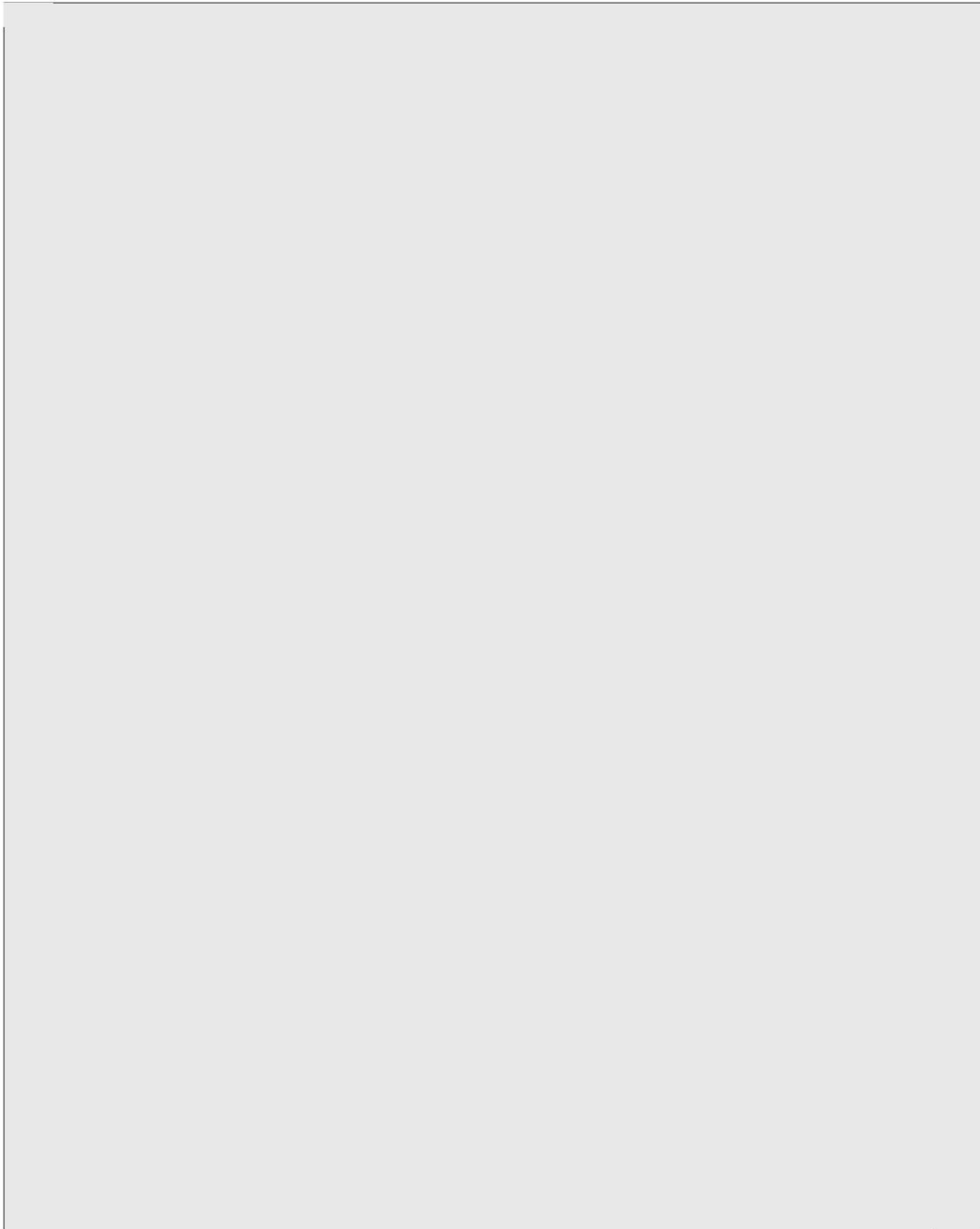
The team's leader is obviously a very key person. Broadly, his/her responsibilities are to conceptualize broad directions for the team, and manage its human resources, including motivating and inspiring the team members, and seeing that the work proceeds according to plan. Besides these, a good leader works to create a team culture of active cooperation between members, i.e., he/she facilitates interactions between members.



inadequate structuring of the team's task or problem; too quick an endorsement of a line of action without examining other alternatives; or too premature a commitment to a particular solution. It helps a team to examine periodically the sort of internal communication that is taking place.

point that groups in which members put their heads together to solve problems tend to perform much better than individuals working alone. This game was once employed in training a group of ministers and senior civil servants of the Government of India.



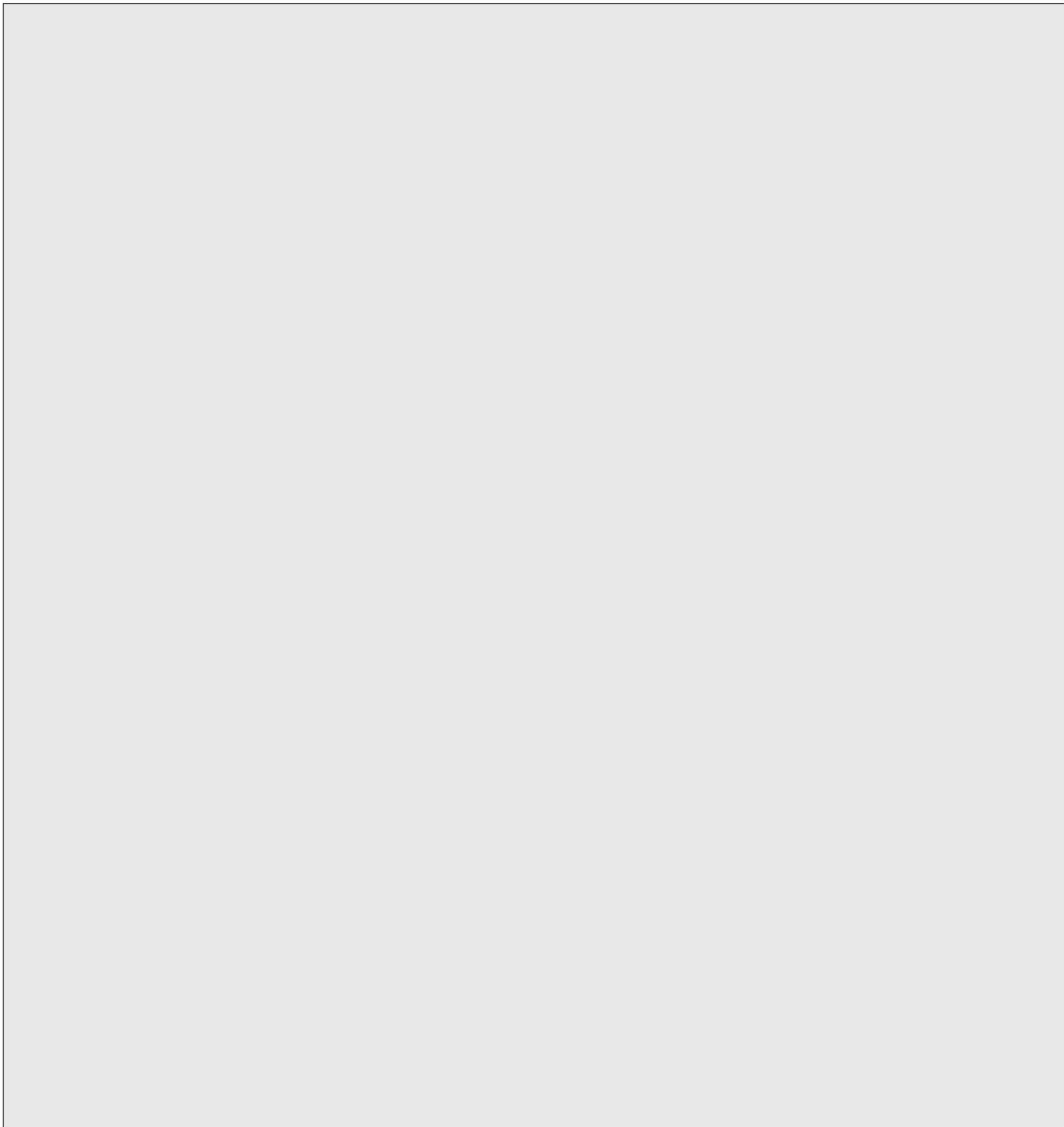


5. The members of a Great Group are mission-charged and firmly believe that what they do will make a dent on the universe. They also tend to see themselves as underdogs who must win to keep their pride intact. They like to compete against (or create) a Goliath to strike down.
6. Great Groups become somewhat isolated, intense in-groups that develop distinctive cultures with fun, rituals, symbols, and language.
7. Members of Great Groups get obsessed with their project and tend to consider all other concerns, including family concerns, as peripheral.
8. Members of Great Groups are born optimists, people who keep on asking 'why not' in situations in which the sober may prefer to shrink in the face of hostile reality.
9. In Great Groups, the gifted are helped to find the right niches for themselves.
10. Great Groups live not just in the world of creative ideas; they also deliver, and often use ingenious means to effect delivery.

### **Shared Values and Purpose**

We noted earlier that a shared ideology helps a group or a team to operate effectively. What shared ideology would help a team operate innovatively? The central values of creativity are curiosity, sensitivity, complexity, entrepreneurship, independence, reality contact, experimentation, persistent striving for distant goals, etc. To the extent that this sort of culture pervades the team, we should expect a tilt towards innovative goals and innovative means for achieving these goals. These values go nicely with an innovationist–democratic–nurturant–idealistic value system. Thus, a shared vision of the team's innovative contribution to some deeply meaningful purpose, a shared concern for helping each other in the team, having members participate in decision making, a culture of cooperation, and a culture of respect for the autonomy of each member should blend well with creativity norms. But shared values do not mean the same values. Beyond the core values, members of a team can have differing orientations and indeed this sort of diversity can yield more innovative ideas

than identity of values (see the box on *Are Homogeneous or Heterogeneous Teams Better for Creativity?*)



## **Skills and Resources**

Besides those skills and resources directly related to the task or mission of the team, the skill needed most for innovative functioning would be capacity for divergent thinking. This means a capacity within the team to sense interesting, stimulating issues or questions (sensitivity); redefine problems in interesting ways; generate many and varied ideas, approaches, and solutions (fluency and flexibility), generate unusual, original ideas; elaborate and develop in interesting ways the selected ideas or solutions; etc. This group requirement may mean that team members may be selected keeping in mind strength in divergent thinking. Not all members need to have the same strengths, though. Some may be able to ask stimulating questions, some may be fluent, others flexible, still others original, and the strength of some may lie in their capacity to develop the bright ideas of others. The greater the divergent thinking capability in the group, the greater also must be the capacity for convergent thinking, so that bright ideas are not implemented without making them okay in terms of cost, efficiency, quality, profitability, etc. standards.

## **Structure, Roles, and Rules**

What sort of structure would help the team function innovatively? The purpose of any structure is to make sure that certain essential tasks, especially repetitive tasks, get done. Structure need not be incompatible with creativity if it releases time and energy for creative work rather than blocking creativity with excessive rules, specialization, centralization, etc. What, therefore, needs to be done is to make an inventory of tasks that must be performed more or less repetitively, and allocate these tasks to individuals within or outside the team. However, the roles of team members should not be defined only in terms of these tasks; these are only minimum elements of their roles. It is important to define roles broadly and not too strictly. Some ambiguity helps interaction and role clarification, not by the leader but by the situation. Indeed, it helps to have versatile team members, i.e., persons who can double for others should the need arise. Periodic interchange of roles within the team can help develop this versatility. Researchers have indicated some specific roles in innovative teams beyond those for effective teams.

can become the basis for meaningful divergent thinking. These roles need not be played by different individuals. The important point is that they should get played.

### **Leadership**

The leader need not personally be very creative. But it is important that he/she respects and understands creativity, and regards as a chief task the nurturance and evocation of creativity in team members. He/she must delegate sizeable powers to team members, encourage initiative, and provide a sense of security to creative members so that they try out innovative approaches that may or may not eventually work.



Besides the foregoing, there may be many little ways in which creativity in a team can be enhanced—the interior décor; gym facilities; flexitime; deadlines; insulation from disturbances (see the box on *Creativity in Ad Agencies: Some Tips*).

### **Creativity in Ad Agencies: Some Tips**

Advertising agencies, architectural firms, management consultancy firms, R&D labs, media firms, and so forth are the elites among businesses when it comes to organizational creativity. Such is their work—generally custom tailored—that creativity in many forms is a big help, be it essence, expressive, elaborative, or entrepreneurial. A study of 303 ad agencies in the US, Canada, and the UK provides several tips for enhancing creativity in such organizations, and indeed, also for innovation-oriented teams and departments in run-of-the-mill organizations, such as their strategic planning unit, human resources development (HRD) group, management services (particularly IT-related) group, and cross-functional project teams.

Douglas West addressed a questionnaire to the Senior Creative Directors (SCDs) of several hundred firms, with over 300 responding.

## TEMPORARY TEAMS

As organizations become more complex, and as they operate in increasingly complex and turbulent environments, the need for temporary teams is likely to pile up. Such teams can take the form of diagnostic teams; inter-functional task forces to find solutions for problems that have no departmental solutions; teams for conducting pilot studies; spearhead or advance teams to go and prepare the ground for the launch of an activity on a new location or green field site; focus groups; project teams; and so forth. These teams have certain peculiarities. Typically, they have a relatively limited mandate and tenure; their members are drawn from various departments so that the members are not very familiar—or comfortable—with one another. Since the membership is temporary, there is a question whether the members would want to come to terms with one another. Often the resources available to the temporary team may be inadequate to the task. The task itself may be somewhat unique or novel so that a lot of improvisation in actions and procedures may be needed. The leader may not have much authority or power since he/she is not one's 'permanent' boss and may not matter much in one's promotion or pay decisions. The management of such temporary teams is therefore quite a complex task. How are such teams managed? How are they revved up for creativity? The study of a film unit provides some clues.

Turbulent and complex internal and external environments throw up a multitude of special, multi-functional tasks, projects, and programmes that are best managed by temporary teams consisting of diverse personnel. Many of these tasks require high orders of creativity, the kind that film units need to display to produce a first rate, unique film. Eileen Morley and Andrew Silver made an insightful study of how Arthur Penn, director of *Night Moves*, an American film made in 1975, effectively orchestrated the production unit consisting of actors, camera crew, lighting crew, sound crew, support staff, and so forth numbering 70.

interruption and without distractions such as personal phone calls. Briefing and interaction sessions such as orientations, planning meetings, and so forth get the unit members comfortable with the unit manager (the director in the case of a film), his/her vision, the task, and each other. Eating two meals together daily cements relationships through relaxed bonhomie. Sometimes spouses can be invited in to brief them about the project, partly to get their cooperation and partly to relieve the stress of team members through too little time with their spouses. The team manager needs to pay special attention to evolving the right team climate.

The head of a temporary team frequently does not have the authority to give special monetary rewards to team members. He/she, therefore, needs to rely on several other sources of motivation. The first is the sense of professionalism, the commitment to standards of professional excellence set by peers both inside and outside the team. Recruiting into the team people with a strong sense of professionalism is a powerful way of ensuring motivated and skilled behavior.

Opportunity to utilize one's competencies and develop them further is another powerful motivation. Challenging tasks (but not excessive overload), careful planning to identify in advance what skills would be needed, and some autonomy may create numerous opportunities to exercise and further develop one's competence.

Genuine but discriminating appreciation and clear and constructive feedback from the head is a third motivational tool available to the unit head. Professionals particularly value deserved appreciation. They also value constructive feedback that helps them to do a better job in the future. As against this, furious abuse or criticism can have devastating consequences for morale.

Long-term career interests that can be furthered by doing a good job is another powerful motive. A good word from the unit head can get the professionals new assignments in the future.

Creativity in a temporary team needs to be encouraged. People need to be encouraged to experiment and innovate. The head needs to demonstrate receptivity to fresh ideas. Penn, for example, filmed several versions of the same scene before final selection, thus encouraging experimentation by the actors. The team's leader, however, needs to distinguish between the idea-generating and decision-making situations. There should be enough brainstorming, experimentation, and so forth so that innovative options come to the fore. But this cannot be an indefinite process. Choosing and implementing are equally keys to success.

Stress can get very high in creative temporary teams. The norms of helpful collaboration in the team, sensitivity to other people's feelings, and willingness to provide interpersonal support can alleviate the stresses or prevent their build-up to dangerous levels. Insulation of the work areas from outside disturbances and outsiders can also help. The use of a support person who takes care of minor hassles of people (both task-related and personal) can alleviate nuisance stresses. In temporary teams with deadlines, time costs can be high — \$25000 per day for *Night Moves*. The norm of keeping the settlement of interpersonal complaints and conflicts off the work arena and working hours can reduce their disruptive consequences on time costs. The team manager can frequently be a major source of stress for team members. Courtesy and respect even during firm handling can reduce stresses from this source. When the work of the team comes to an end, there may be a sense of depression. A high-spirited ending party can ease the transition from high intensity involvement with a project to separation from it.

Clearly, high orders of interpersonal and managerial competence are needed in managing temporary creative teams effectively. Mere technical competence does not suffice. Not by a long shot.

Martin Hoegl and Hans Gemuenden's research on 145 German software development teams provides useful cues to the success factors for such temporary teams.

factors in the effective functioning of temporary teams. Morale makes a difference when circumstances are tough. More hard work and more innovations are likely to come forth, and also greater willingness to work together in the future.

## SELF DIAGNOSIS

If you wish to diagnose how effectively innovative is the team that you are a member of, complete the instrument 'Team Assessment Instrument' given in the Annexure 5.1. Encourage at least one other (preferably more) member of this team also to complete it, and discuss any points of disagreement in order to arrive at a consensus. Brainstorm as a team as to how it can become more effectively innovative. An innovative management team's scores are provided in the feedback table.

## CONCLUDING COMMENTS

*A typical manager spends half or more of his/her time with others either in one-to-one interactions or in committee work. The principles of creative interaction and teamwork discussed in this chapter can go a long way in enabling the interactions and the teamwork to be highly invigorative for all the parties. Many fresh ideas, elaborations, initiatives, communications, personal learnings, and services—all the six management creativities discussed in Chapter 1—can result from such invigoration.*







### ? QUIZ

Are the following statements true or false? Why?

- I Mutually satisfactory interactions are possible only if there is no conflict of interest among the interacting individuals.

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8 Ideology is an important part of team development.

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9 The less the structure in a team, the more innovative it is.

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10 Innovative teams need highly creative leaders.

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The principles of creativity—quantity, variety, and originality of ideas—can easily be applied to develop more satisfying interactions with others. An interaction between two persons—be they a couple, or parent and child, or boss and subordinate, or two colleagues—results either in one ‘winning’ at the cost of the other, or both ‘losing’, or both ‘winning’. The creative solution is the ‘win-win’ one, in which the needs of both parties are satisfied, at least to some extent. The destructive one is the ‘lose-lose’ one, and so to a lesser extent is the ‘win-lose’ outcome.

Try the following.



A large gray rectangular area with horizontal dotted lines for writing. The lines are evenly spaced and extend across the width of the gray area. There are approximately 20 lines in total.



A large gray rectangular area occupies the central portion of the page. On the right side of this gray area, there are 20 horizontal dotted lines, providing a space for students to write their responses to the questions.

## ANNEXURE 5.1

### Team Assessment Instrument

*Name of organization:*

*Name of team:*

*Date:*

Please rate the above designated team on each of the following dimensions using the following scale:

The team is deficient  
on this dimension

1 2 3 4 5 6

The team is very strong  
on this dimension

S. No.	Description	Rating
1.	Shared core values, and clear corporate and departmental mission/vision that bind team members together	
2.	Complete clarity on the mandate of the management team (e.g., whether or not it is a decision-making body and, if so, the sorts of decisions it can take)	
3.	Cooperation and helpfulness of members	
4.	Free and frank discussion of all issues and encouragement to members to voice dissenting opinions	
5.	Emphasis on novel perspectives, brainstorming for creative ideas, experimentation, innovation, search for fresh opportunities	
6.	Almost all decisions are consensus decisions reached after full discussion and exploration of many angles and options	
7.	Financial and administrative support to the team	
8.	A good mix of complementary analytical, creative problem solving, planning, and implementation skills in the team	

S. No.	Description	Rating
9.	Reasonable standardization of operating procedure, division of labour and specialization within the team to ensure that routine matters are taken care of and everybody knows what his/her particular functions broadly are	
10.	Members are encouraged to seek vital information and intelligence relating to the work of the team and bring it to the team for discussion	
11.	Planning by the team for implementing decisions, periodic review of implementation of these decisions and course correction	
12.	The team periodically examines its <u>internal processes</u> such as communications within it, the <u>way</u> it makes decisions, and the <u>way</u> it evolves its priorities and takes corrective action	
13.	Considerable warmth and support is expressed by members towards those other members undergoing stress	
14.	Members are good listeners and effective communicators	
15.	The leader of the team is given respect as first among equals rather than shown deference as the Big Boss	
16.	Members stress the corporate perspective over narrower sectional or personal perspectives	
17.	Time is available at the meetings of the team to discuss issues beyond agenda items	
18.	Members are expected to speak their minds constructively on matters pertaining to others' functions	
19.	The leader of the team follows up on the implementation of collectively taken decisions	
20.	Members generously praise the achievements of others in the team	

After rating the team, convert the score for each item into % score by the formula (item score – 1) × 20. Transfer the team score from the Management Team Assessment Instrument above to the table below on your Team's Effectiveness scores in column 1 of the table. For this purpose, look at the item number given in the table, and trace the score in the instrument, for transfer to the table. Scores for a well-performing innovative management team are given as a benchmark in column 2 of the table.

Name of organization:

Name of team:

Date:

*Number of members rating the team:*

### Table Your Team's Effective Innovativeness Scores

[illegible]

[illegible]

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Item No. in T.A. Instrument		Your Team's Score (%)	

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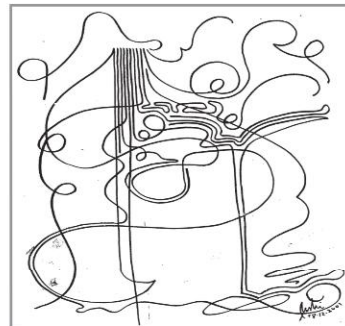
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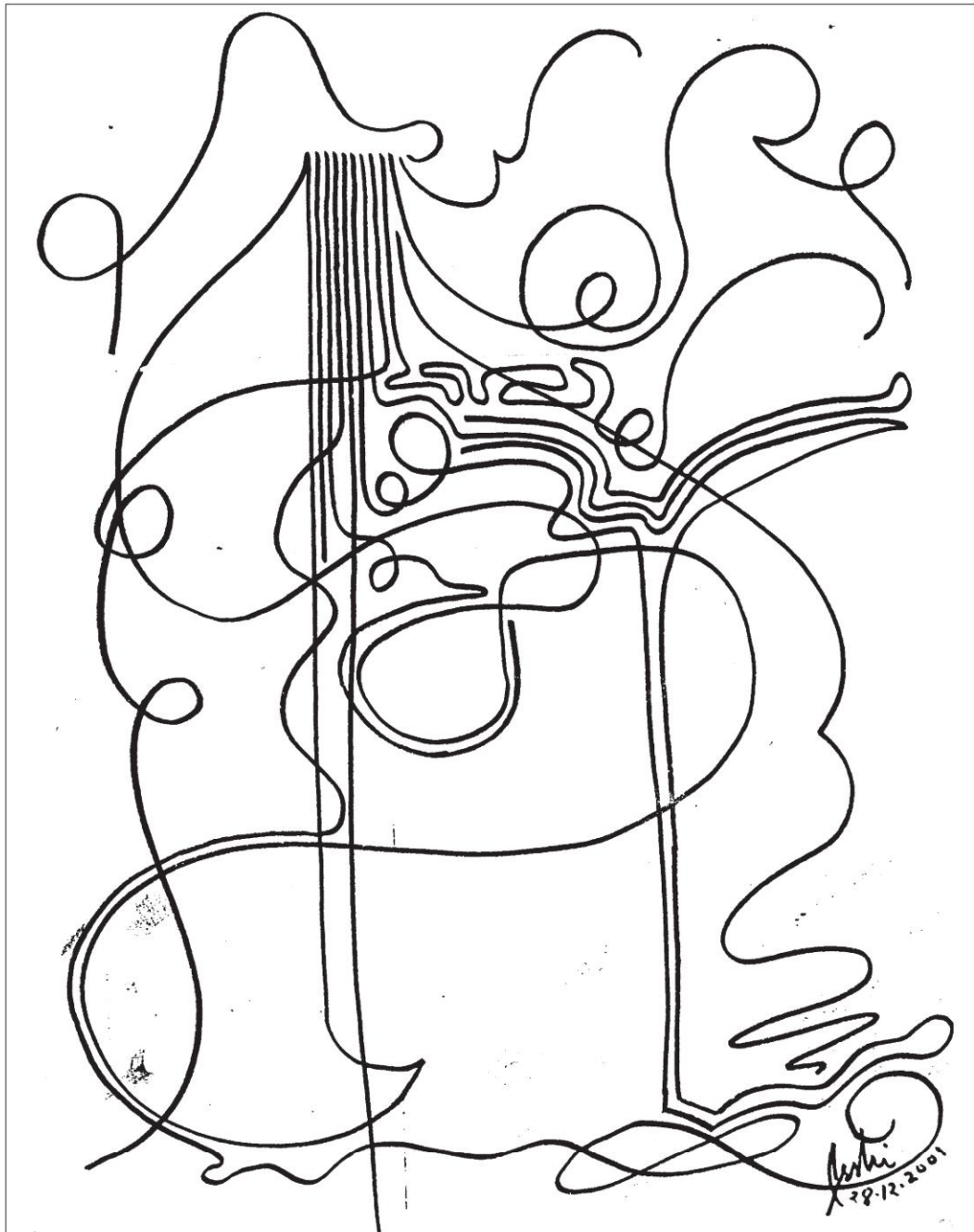




# Can Organizations be Perpetually Creative?

- ▶ Glimpses of Organizational Creativity
- ▶ Concluding Comments







course, the numerous management tools and techniques that have evolved over the centuries and widely practised all over the world, like long range planning, various forms of budgeting, market research, statistical quality control, participative management, job enrichment, human resource development, Program Evaluation and Review Technique (PERT), Critical Path Method (CPM), linear programming, etc. that have played such a large role in making business and other organizations so much more productive than they were in the past and have thereby enriched our lives beyond measure.

So, despite bureaucratic tendencies in sizeable organizations, under innovative managements even the largest organizations can be creative.

mission that reflected the patriotic urges of the founding family.

induced innovation through overloading. Employees were challenged with targets like halving the cost or doubling production.

Vis-à-vis R&D, which Excel emphasized, Excel's philosophy was of exploring the possibilities of impossibilities—by taking up only those projects that were difficult and challenging. Excel's R&D was geared to providing it with the first-mover advantage in new, high-quality products. Most of the R&D work was done in teams and their work was reviewed by task forces. A forum called *Innovation 1992* was formed for teams to present their innovative ideas. It was fairly commonplace to appoint groups to brainstorm on alternative uses of the technologies developed at Excel, including some 'failures.'

The bottom line? By 1992, Excel had become one of the top five Indian private sector chemicals companies in size. It was the most profitable of the top 10.

### **Semco**

Semco, a Brazilian company originally in the business of producing and marketing hydraulic pumps for ships, by 1988 was into a range of sophisticated products including digital scanners, truck filters, mixing equipment, marine pumps, and commercial dishwashers. Semco was practising a remarkably distinctive management philosophy.

was that the production schedule was decided by the staff on the factory floor; also how much of the division's bonus should go to which employee was decided by the staff of the division. The common practice was equal distribution, so that the janitor got as much as the division head. Employees over 50 had job security, and were rotated every two to five years to diversify capabilities.

The company had de-regulated with a vengeance. All manuals, regulations, dress codes, security searches, store room locks, time clocks, travel expense rules, and the like were abolished. The accounting system was simplified, and 400 cost centres were reduced to just 50. Hundreds of expense classifications and dozens of lines in the budget were 'beheaded.'

The bottom line? In the 1980s, Semco sales climbed 9 times in dollar terms despite a stagnant Brazilian economy that grew at barely 2% per annum in the 1980s, barely above the 2.0% growth per annum of the population. Despite being in competitive industries and frequently facing tough competition from multinationals, Semco in 1988 was earning 10% on sales. It had repeatedly been named as the best place to work for in Brazil.

## **Lufthansa**

Both Excel and Semco were relatively small companies. Let us now cut to a giant German corporation, that too a government-owned corporation. In the early 1990s, Lufthansa, the German national airline, was a global corporation with an international network of routes serving 220 destinations in 85 countries, over 40000 employees, and Deutsche Marks (DM) 16 billion in revenues.

decisions to accord with Ops 93. The Ops Team worked with nearly hundred managers in various departments. It communicated the mindset change agenda of emphasis on entrepreneurial values, and stress on customer satisfaction and higher productivity. It tried to counter cynicism and negative thinking.

While the Ops Team was busy doing its work, 25 middle-level managers formed a band called Samurai of Change after attending a four-week training programme. They took upon themselves the responsibility of revitalizing Lufthansa. Weber gave them his support, and they too went round explaining Lufthansa's predicament to their colleagues and the staff, and egged them on to help stem the losses. A cross-functional team of the Samurai was formed to try and help evolve a more open and fearless culture in which the employees could speak their mind and share their ideas. A daring initiative was to form another cross-functional team to lobby for a change in an international agreement between the US and Germany on sharing of air routes. This agreement was a legacy of post World War-II times when Germany was very much the weaker party and the agreement was widely seen in Germany as an unfair one. The Samurai lobbied the German chancellor as well as the US government, and succeeded in getting the agreement modified. This yielded to Lufthansa an additional 1000 bookings per day on the shared routes.

Members of Lufthansa's board, too, pitched into the mindset change effort. Several travelled all over the world to Lufthansa locations to participate in 'town meetings' with the staff. They stressed the need for improving service quality and sought the staff's participation in the revitalization effort. Participative management was strengthened in each department by setting up a committee in each department with staff and management representatives. The committee had to be consulted on all important decisions concerning the department.

The management roped in the unions into the turnaround, and they agreed to a wage freeze which saved the airline DM 500 million.

All this staff mobilization facilitated a flurry of profitable actions. Over 200 travel agencies were enrolled, and attractive travel packages including concert tickets were offered. A frequent flyer programme was started that bonded nearly a million travellers to the airline. An information technology (IT) project was launched that processed traffic information on some 10000 routes used by Lufthansa and its competitors so that Lufthansa could improve route profitability by DM 300 million. IT was also utilized for more sophisticated management of network scheduling, pricing, fleet capacity, etc. Process engineering was undertaken. A service quality index was developed to measure—and reward—the effort of managers to improve customer services. The company was regionally decentralized, and



several new, autonomous subsidiaries were formed for the business of cargo, maintenance, ground service, etc. Over 300 pilots and flight engineers agreed to work part-time or go on unpaid leave, and over 100 were contracted out to other airlines. The unions agreed to the hiring of flight and cabin crews overseas at the substantially lower local rates. Some maintenance was shifted out to Ireland where it was cheaper and for the same reason ticket processing was shifted out to New Delhi. Excess capacity on the North American route was curtailed and data processing outlays were cut to save DM 335 million. Some 8000 left the company voluntarily (no one was fired).

The bottom line? A 1991 loss of DM 426 million was converted into a DM 2115 million profit in 1995, while revenues were nearly doubled.

### **Canada Post Corporation**

Finally, here is an example of innovativeness in what was once a hard-boiled government bureaucracy. Until the early 1980s, Canada's Post Office was a widely lamented government bureaucracy.

The Corporation set up a subsidiary to market its electronic technology and services internationally. It also entered into international joint ventures to provide an efficient international courier service covering 200 countries.

The bottom line? The Corporation turned profitable. In 1987, it handled nearly 60% more mail than in 1981, with nearly 20% less staff. Its cost of delivering a letter became the second lowest in the West. The Corporation funded its investments without government budgetary support. Outside auditors assessed its performance against published standards and found virtually 100% attainment.

The four cases from four different countries (India, Brazil, Germany, and Canada), covering both manufacturing and service industries (chemicals, equipment, air service, and postal service), varying greatly in size (Excel and Semco were relatively small; Lufthansa and Canada Post were huge) and ownership (Excel and Semco were privately owned; Lufthansa and Canada Post were owned by the government) suggest that organizational creativity is not specific to either region or country or sector or size or form of ownership. The four case studies also suggest that organizational creativity 'works' and when supported by able management and appropriate strategy, structure, and systems, it delivers excellent performance.

### **CONCLUDING COMMENTS**

*These four case studies are not stray examples of organizational creativity. A British study published in 1961 noted that several younger firms in the electronics and electrical industry were far more innovative than the older firms in the industries.*

*It is clear that organizational creativity can yield performance excellence, and can flourish in a wide range of climates. In the next chapter, we examine creative practices in various management functions. If functions such as personnel management, marketing management, operations management and so forth are discharged creatively, this should go a long way in making the organization highly innovative.*

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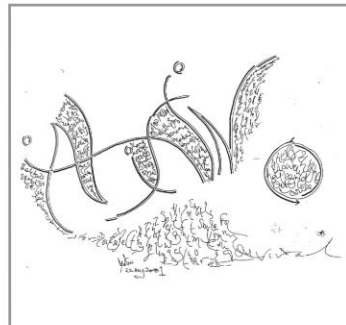
## REFERENCES





# Creative Management Practices

- ▶ Creative Human Resource Management Practices
- ▶ Creative Growth Strategies
- ▶ Creative Marketing Management
- ▶ Creative Management of Operations
- ▶ Creative Management of Product Design
- ▶ Concluding Comments









adopter. For the late adopter, the innovation is merely one more good practice, adopted to keep up with the Joneses, but conferring no competitive advantage.

In this chapter, I have described a number of still relatively obscure innovations that have potential applications far beyond the organization site in which they occurred.

## **CREATIVE HUMAN RESOURCE MANAGEMENT PRACTICES**

delinquent was receptive, the company helped out with requisite treatment, etc. The friends and relatives of the person were also coopted into the reform effort. In some hopeless cases, the offspring or other close relative was offered a job in return for the resignation of the 'incurable' delinquent. Only in rare cases was employment terminated. The result of this innovation was substantial reduction in the level of such delinquencies as absenteeism.

Petersen enrolled in a high speed driving school to drive Ford's cars at high speeds to test their safety, since there was widespread concern among Ford customers about the safety of Ford autos.

## **CREATIVE GROWTH STRATEGIES**

Growth through expansion, diversification, mergers, acquisitions, and joint ventures is commonplace. However, there are some uncommon ways of drumming up new business.



## **CREATIVE MANAGEMENT OF OPERATIONS**

Operations management was a major area of organizational creativity in the era of scientific management during the late 19





IDEO that has been acclaimed for its creativity, has indicated the following basic steps for coming up with successful and creative product design:

teams to study grocery shopping, shopping carts, and relevant technologies in situ. Experts were consulted.

The teams descended into the aisles of a grocery store, and began to observe long neglected safety and convenience aspects, including the shopper's struggle to buy while watching over her children. They observed 'traffic jams' in the aisles and around the pay counters. One team went over to a professional buyer of carts for a stores chain, and found out about the relative uses of steel and plastic, and the high cost of lost or damaged carts. Another team went to a local store selling bicycles to observe the latest materials and designs. A team carefully looked at children's car seats and baby prams. Another team went over to a local electronics store to look at electronic gadgets that could be fitted into a shopping cart. Another team interviewed a cart repairman. All this was done on day one, and resulted in consensus goals, namely that the shopping cart should be more child friendly, safer, and more efficient from a shopping point of view.

During the next few days, the design unit brainstormed on how to meet the consensus goals. This included making all sorts of sketches on sheets stuck on the walls. Wacky ideas were encouraged, such as using Velcro seats for babies who would be glued to them through their Velcro diapers! The ideas were voted upon, and a design plan was formulated. Four groups were formed to produce mock-ups, with each group focusing on one of four concerns—safety, shopping convenience, checkout effectiveness, and ease of finding what the shopper wants. After sketching out their ideas, the groups went shopping in a hardware store to look for ideas and materials. Later the groups produced crude prototypes that addressed the concern each was assigned. The best features of each prototype were collectively identified, and several small model carts were produced with wire-welding rods.

On day 5 the re-designed shopping cart was unveiled before TV cameras for airing on a national programme. The new cart was more curvaceous—like a sports car. There was no main basket. Instead, in the open frame six standardised handbaskets could be accommodated. This way, the shopper could park the cart at a place and go and bring back needed proximate products in a handbasket. Plastic bags were provided on hooks inside the cart and the contents of each handbasket could be quickly packed in these at the pay counter. A seat was created with a safety bar and a blue plastic play surface in front of it for an infant. Added to the cart was a scanner to pay for the items directly, a set of wheels that enabled the shopper to move the cart forwards, backwards and sideways—and a couple of cup holders for holding beverages!

## CONCLUDING COMMENTS

*Too much of our conception of good management is tied up with established tools and techniques of management and best practices. Creative management is an exciting new area in which the notion is not to adopt what is established but instead to experiment, find interesting mutations, and adopt innovative new practices. Unfortunately, organizations, after a flush of innovations following a crash, frequently settle down once again into a prolonged pattern of routinization and standardization, until a fresh crisis hits them that challenges the over-learned success formula. This is the process known as punctuated equilibrium.*



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# Design of Organization for Sustained Creativity

- Issues in Organizational Design
- Approaches to the Design of Creative Organizations
- Organizational Design for Sustained and Successful Creativity
- Diagnostic Instrument
- Concluding Comments

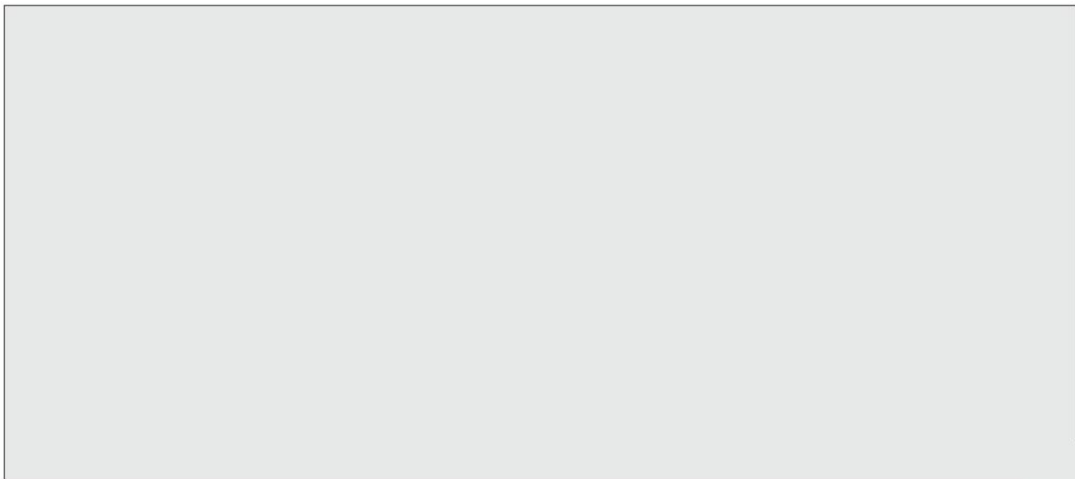




“One does not discover new lands without consenting  
to lose sight of the shore”

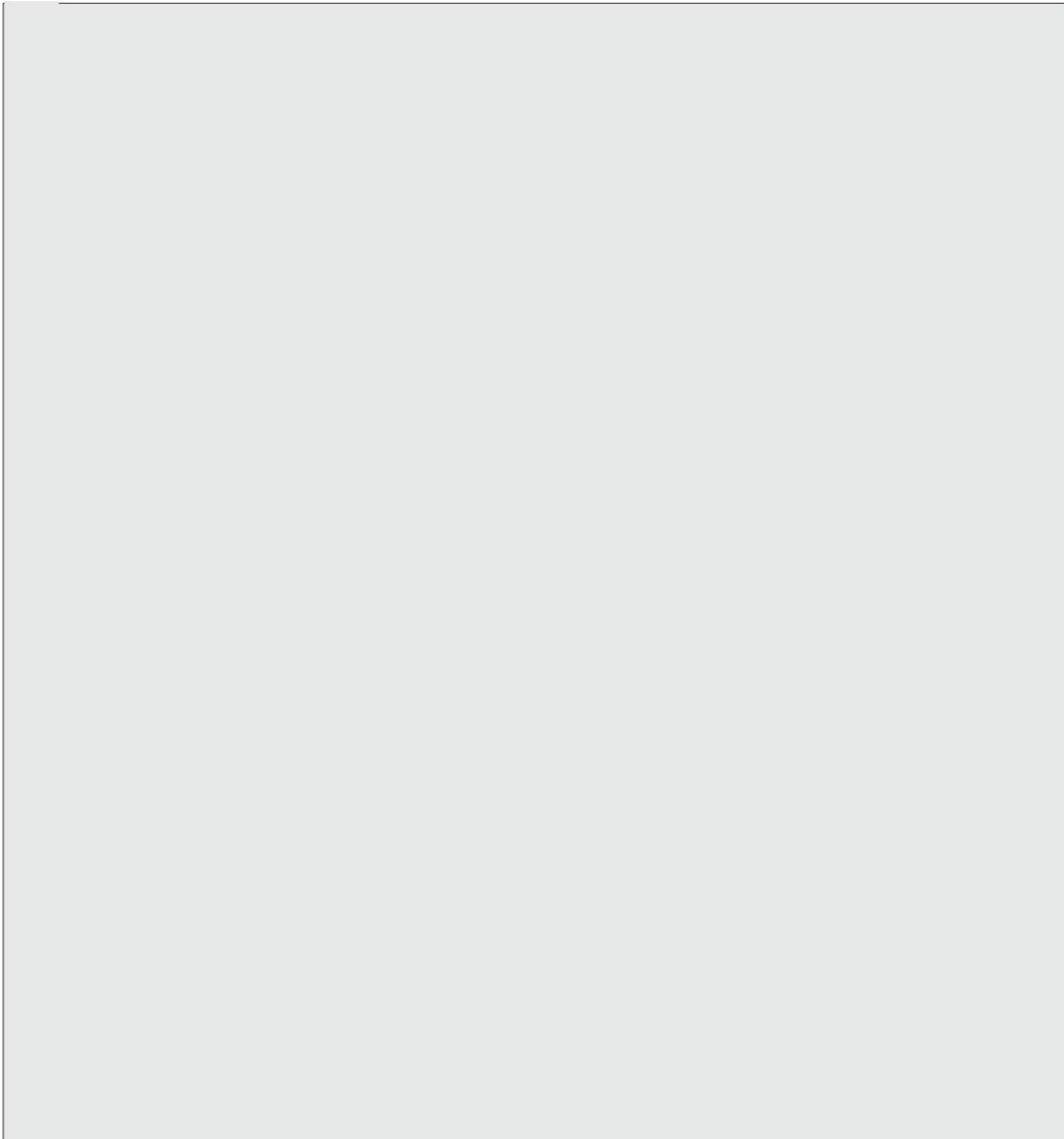


and the control and coordination systems.



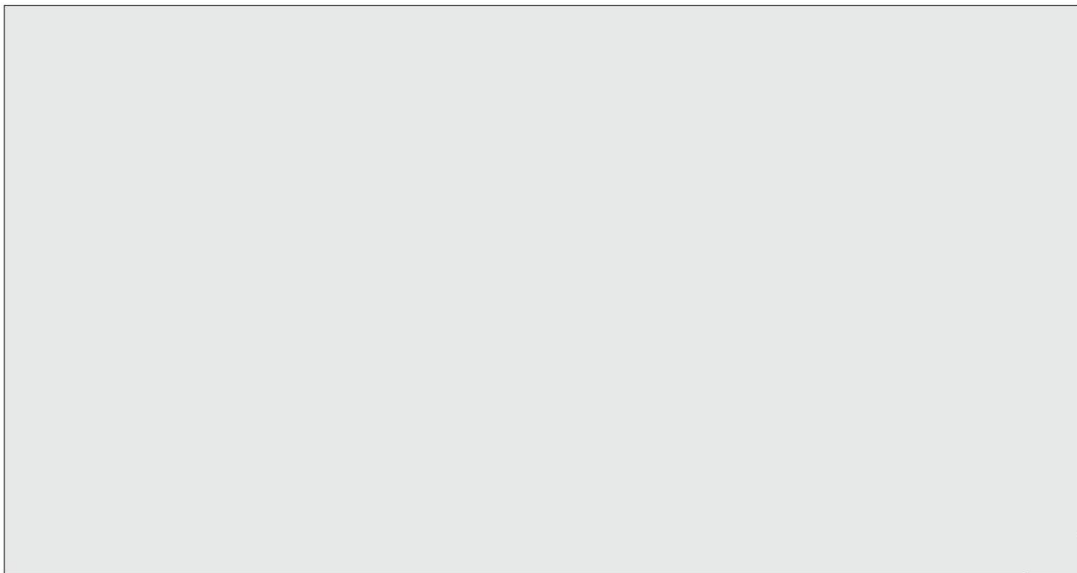
advertising companies, a position it maintained also in 1995. During 1988 to 1995, Mudra's billings increased nearly eight times. From handling just one client in 1981, it was handling 120 accounts in 1996–97.

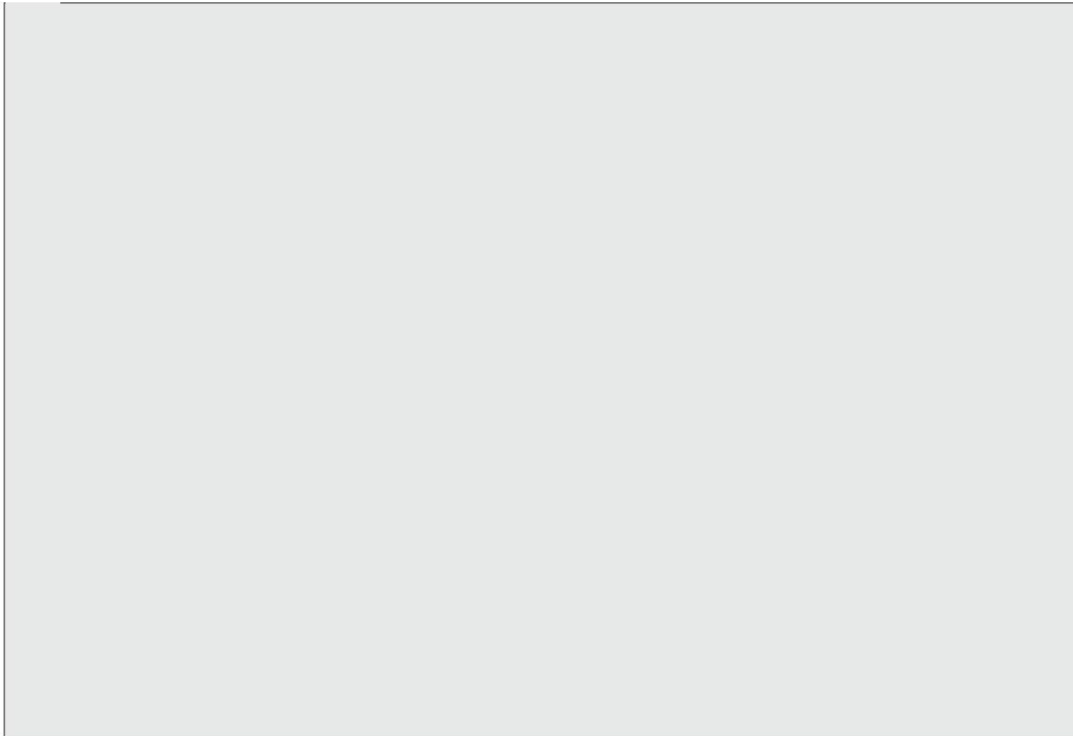
Mudra displayed considerable entrepreneurial zeal and innovativeness. By 1988, it had set up five divisions. Interact was set up to service small clients and help them grow big, and thereby yield to Mudra a continuing and growing stream of business. A classic case of this strategy was Pioma Industries, a producer of soft drinks branded Rasna, whose sales, with the help of Mudra's innovative advertising grew some 50 times in the 1990s. Samir was set up to undertake all of Mudra's market research and advertising support functions. Mudra Videotec was set up to produce videos. Mudra Merchandising functioned as a distribution house for Mudra products, and Passion was into fashion and textile design. By 1998, several more divisions were added to provide such services as value-added information, outdoor media work, public relations, promotions, arrangement of exhibitions and roadshows, creation of web-sites, designs of corporate identities, graphics, product designs, production of programmes sponsored on television, and so forth. By recruiting high caliber and innovative youngsters from India's premier institutions of management and design, and giving them charge, Mudra was able to diversify as well as retain focus. Mudra set up regional offices in eight other Indian cities. It entered into a collaboration with a major US media company. Starting with three awards in 1980, it bagged 90 awards in 1996. In 1996, Mudra had a relatively flat structure, with all 12 service divisions reporting to the CEO, and considerable autonomy was enjoyed by the heads of regional officers (each regional office was a profit centre). The CEO travelled incessantly, believing in management by moving around, and encouraged vertical, diagonal, and horizontal interactions. Mudra blended considerable professional management with its entrepreneurial spirit and operating flexibility. Before targeting clients in unfamiliar industries, Mudra studied the industry's long-term prospects. If the industry appeared to have a future, sophisticated clients producing high-quality products and appreciative of creative advertising were identified and approached for presentations. Mudra succeeded not by focusing on industry leaders but on smaller, high potential but relatively neglected companies. Mudra fully computerised its operations and hired a doctorate holder for this purpose. Mudra management also had a visionary and altruistic streak. Mudra set up, with its own resources, a pioneering institute that trained communications professionals for the whole industry.



## **APPROACHES TO THE DESIGN OF CREATIVE ORGANIZATIONS**

Clearly, creative organizations need complex designs. However, scholars differ somewhat on what design is most suitable. Gary Steiner has distinguished between an organization that is creative because it is headed by a creative, entrepreneurial individual who commands and coerces the rest of the organization to comply with his/her visions and ideas, and the genuinely creative organization which is decentralized and in which lots of people display creativity





Even more complex designs have been proposed. For instance, Paul Tesluk and his colleagues have reviewed considerable work related to creativity in organizational settings, and have proposed that individual staff members' creativity is likely to depend upon a whole host of factors.



the environment is scanned by the organization and constraints within the environment (such as regulations) are tackled, is one factor. The nature and quality of the organization's management, including the latter's style, orientation, focus and priorities, is another. The organization's structure, its control system, and the way R&D is organized, is a third factor. A fourth factor is the organization's human resources management system, especially the way people are hired, fired, trained, and rewarded, and the HR philosophy and strategic orientation. A fifth factor relates to key innovation players and change agents within the organization, and the roles they play. Another factor is the openness and experimentalism in the organization's culture and psychological climate. A further factor is the characteristics of the innovations. The final eighth factor is the way the organization markets its products, including the responsiveness to customer expectations.

Let us now turn to some research evidence bearing on the key shapers of organization creativity.

### **Creativogenic Management Style**

Management style can both impede innovations and facilitate them. In the 1950s, Tom Burns and G.M. Stalker were commissioned to study why older firms in the electronics and electric industries in Britain were not able to convert inventions into successfully marketed products while some of the younger companies in Britain and the US could.

functional turfs, and so decisions emerged through interactions rather than being made by the formally designated bosses. Also, the expert in the situation—who could be quite a junior fellow—called the shots rather than the formal boss. People interacted disregarding departmental boundaries, picking brains and sharing information, and most decisions were taken—or rather, emerged—at middle and lower levels of management. Thus, according to Burns and Stalker, a fluid, boundaryless, highly interactive, expertise-based management was more suitable for managing technological innovations than a mechanistic, bureaucratic, semi-feudal form.

But that is not the whole story. Between 1967 and 1987, the Japanese industrial system was able to increase manufacturing productivity two to three times faster than the US and Western Europe, and indeed, by 1988, five Japanese corporations figured in the world's top 10 corporations in garnering US patents, including the top three positions (held by Hitachi, Toshiba, and Cannon).

entrepreneurial style, the organic style, the participative style, and, surprisingly, the altruistic style. The entrepreneurial style involved active search for big, new opportunities; large, bold decisions despite the uncertainty of their outcome; a forceful leader at the top; and rapid growth as the major organizational goal. The organic style involved a strong emphasis on unrestricted flow of information and communication within the organization; widespread awareness of the organization's goals, problems and business plans among managers at all levels; aversion to form-filling, paper work, formalized procedures and job descriptions; and emphasis on flexibility, openness, innovation, getting problems solved and getting things done through resourcefulness. The participative style emphasized the participation of subordinates in decision-making, on sharing of power with them, on trying to evolve consensus decisions through free and frank discussions, on sharing of ideas and information, on democratic procedures, mutual trust, creating a climate of collaboration, and teamwork. The altruistic style involved a commitment to the management being a trustee for all the stakeholders, to pursuing business goals through ethical means, and to corporate social responsibility.

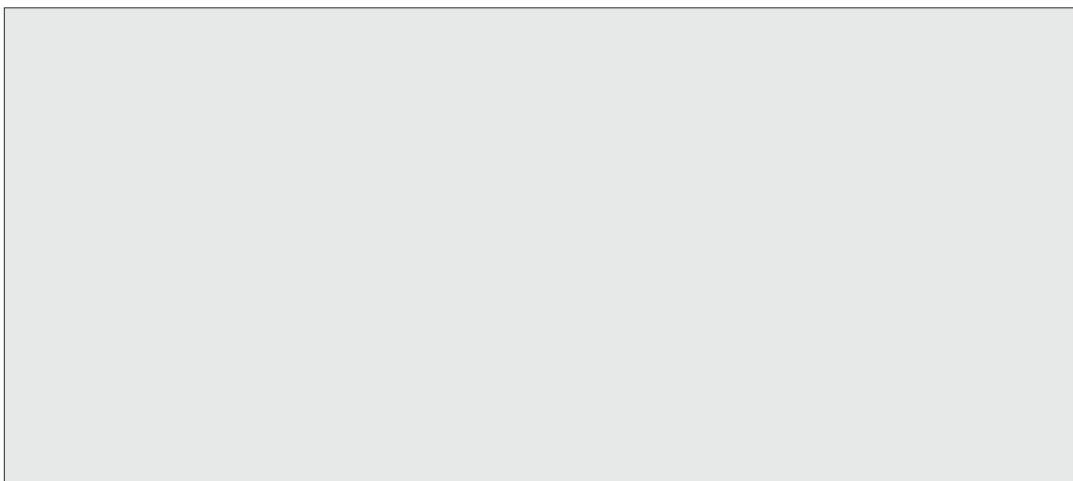
Organizational creativity means not only the conceiving and undertaking of many innovations, but also their effective implementation and institutionalization/ stabilization. The four styles were correlated with 23 mechanisms of organizational learning/innovation, divided into 8 aids to the production of innovative ideas, 7 aids to the effective implementation of innovative changes/projects, and 9 aids to the stabilization/institutionalization of these innovative changes/projects. The four styles either individually or in combination were relatively strongly associated with 7 out of the 8 aids to the production of innovative ideas, all 7 aids to effective implementation, and all 8 aids to stabilization/institutionalization. Of the four styles, the altruistic style was strongly associated with the usage of 20 out of 23 organizational learning/innovation mechanisms, the participative style with 15, the entrepreneurial style with 12, and the organic style with 9 mechanisms.

The four styles foster somewhat different forms of organizational creativity. The entrepreneurial style forges creativity in growth opportunities. Seeking the first-mover advantage, the entrepreneurial management looks for relatively new and novel products/services. The organic style facilitates interaction across departments and levels, rendering the organization 'boundaryless', in the language of General Electric's Jack Welch, and this extreme interactivity produces, through cross-fertilization, a stream of innovative ideas on how to get things done resourcefully, meet targets and deadlines, and even beat them, overcome technical and financial constraints, and so forth. The participative style ensures that not just one but several minds apply their minds to a problem, and since several different perspectives are brought to bear on a problem, the resulting solution can be better and more

innovative than when just the boss takes the decision. The style impacts the innovation's implementation and institutionalization powerfully by creating internal stakeholders that are committed to the innovation. Finally, the altruistic style instigates search for innovative *and* ethical means for meeting business goals because the shady ones are ruled out, and for innovative ways for fulfilling moral commitments. Also, its practice invites in a whole lot of ideas and suggestions of stakeholders and their willing cooperation in implementing innovative ideas, since the stakeholders know that their interests would be protected by the management. Together, therefore, the four styles may stimulate creativity and learning in all the functions, at all the levels. No wonder together they were significantly correlated with 21 out of 23 mechanisms of learning/innovation that were examined.

### **Creativogenic Policy Frameworks**

Organizational life is full of chaos. Should the organization diversify or not, and if diversify, into areas related to the current business or unrelated to it? Should the organization compete on the basis of product quality, or price, or advertising, promotion, and brand loyalty, or new product introductions? Should the organization go in for a simple structure or an elaborate structure? Should it computerise its operations or not? Should it go in for total quality management or not? And so on and so forth. Corporate policies are guides to choosing in decision-making situations. What policies favour organizational creativity? Policies that favour experimentation, risk taking, rapid growth, pioneering, innovations, operating flexibility, and so forth are likely, if synergized, to promote organizational creativity (see the box on *Policy Frameworks for Pioneering and Innovating*).



management goals, the characteristics of the environment in which the business operated, and so forth. For each item, I had sought a rating on the 'present' situation, and the situation three years earlier. I was interested in seeing what past circumstances and commitments gave rise to the present PI policy framework.

The statistical analysis yielded five prior period primary generators of the 'present' PI policy framework. These were a talent attraction strategy involving a commitment to being a financially generous employer; a talent utilization strategy involving a commitment to hiring creative staff and giving them substantial operating autonomy; a uniqueness strategy of offering primarily novel products/services; opportunistic diversification; and a strong commitment to operating efficiency. These primary generators tended to induce a management mindset that simultaneously favoured uniqueness, innovation, and efficiency.

There were also several secondary generators of the PI framework. These included a relatively opportunity-rich, dynamic, and complex operating environment; management's commitment to all stakeholders, not just stockholders; desire for greater professionalization of management; and a strategy of marketing customized, premium quality products. They also included such 'organic' management policies as those favouring peer group (as opposed to hierarchical) control and widespread experimentation, and such policies as meritocracy in hiring and promotions, personal accountability for performance, and work discipline.

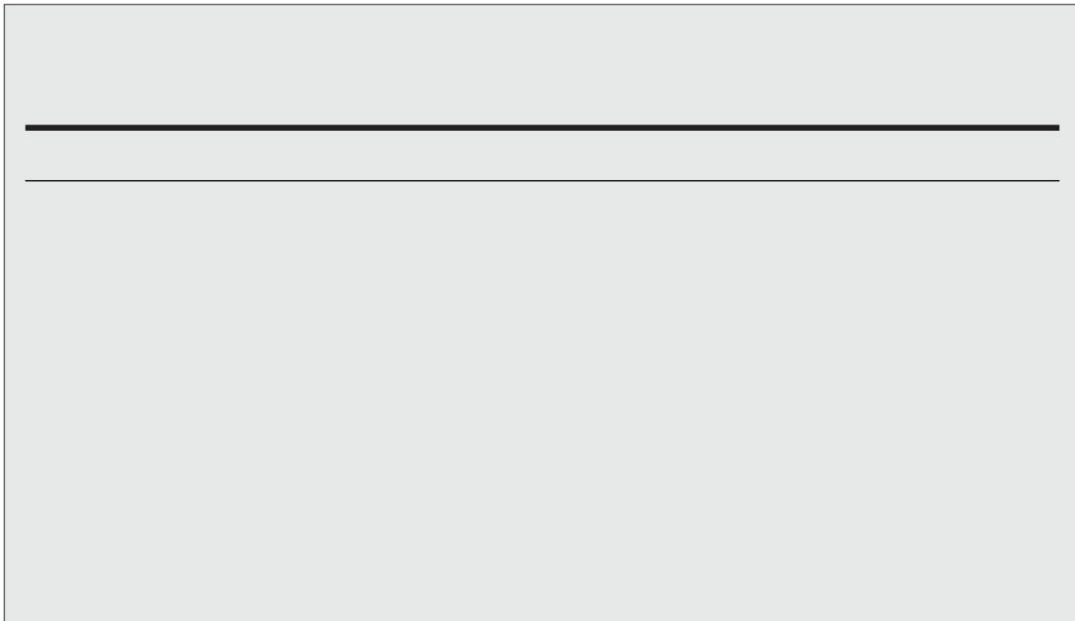
A full-blown PI framework is seldom likely to arise on its own. Many forces may need to act in concert to produce it, some outside the organization, some stemming from the business strategy, and others stemming from the operating commitments of the management.

Was the PI framework a desirable one? Those companies with high PI scores grew (over the 1975–1981 period) twice as fast as the low PI score companies, and PI was correlated 0.25 with the growth rate of the listed share price (after adjusting for bonus issues). Thus, in the circumstances of a statist but deregulating economy, the PI policy framework seemed to yield superior financial results.

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### **Creativogenic Organizational Cultures**

Organizational values and beliefs can nurture or inhibit organizational creativity. Shared beliefs in entrepreneurial values can promote experimentation, innovation, and risk taking throughout the organization, while shared conservative/traditional values and beliefs can block these (see the box on *Traditionalist Versus Innovationist Ethic*). The survey by Sharon Arad and colleagues on the values of 300 American organizations suggests the kinds of values that constitute what they call a risk-taking culture, and what other values and mechanisms may buttress this culture.

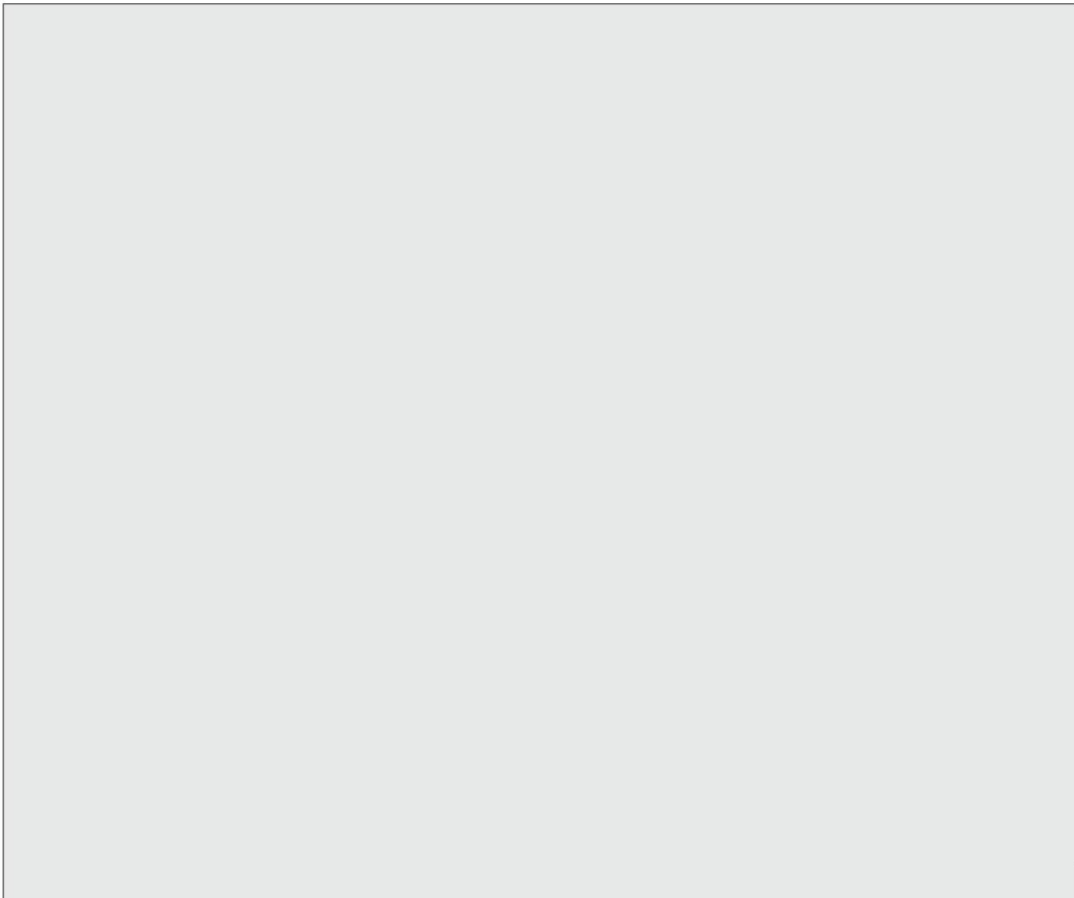


<b>Dimension</b>	<b>Traditional Ethic</b>	<b>Innovation Ethic</b>
<i>Traditions</i>	Traditions give stability to life	Traditions hinder adaptation to environmental change
<i>Development</i>	So-called development is mostly fads	There is only decay and death without growth and development
<i>Results</i>	Rules must be observed	Results matter, not rules
<i>Experimentation</i>	Most innovations are half-baked crazy ideas that don't work	To get to the revolutionary idea it may be necessary to try out a hundred false leads
<i>Values</i>	Life's main virtues are honest, hard work, and efficiency	If the human is the king of Creation it is because of innovation
<i>Nature</i>	Man should live in harmony with nature	Man should master nature
<i>Vision of destiny</i>	One must do one's appointed duties	One must forge one's commitments in the light of the vision of one's destiny
<i>Pragmatism</i>	People get into trouble because they ignore the fundamental principles of life	All principles are situation specific and need to be evolved in the light of new information and new situations
<i>Providence</i>	Faith in the divine will save man	Reason and creativity will save man, not divine providence
<i>Fate</i>	We must accept our fate	We must fashion our fate

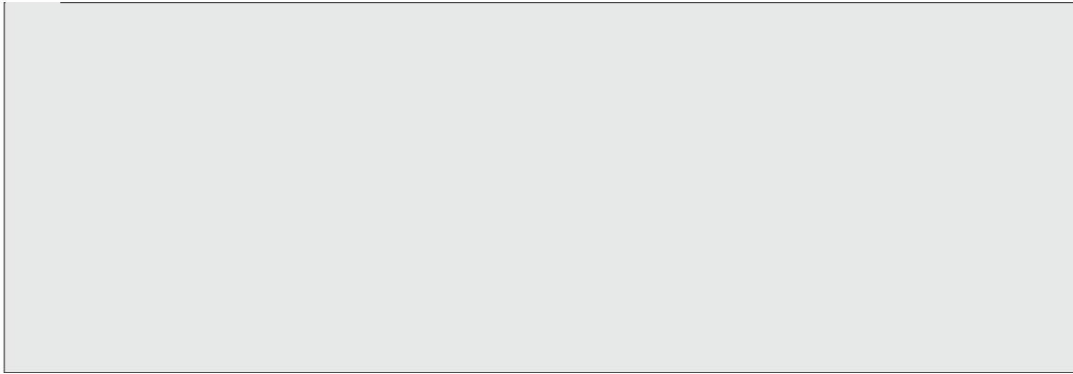
Interestingly, these three orientations were quite strongly inter-connected, suggesting a strong complementarity. The researchers gathered data also on a number of structural and contextual variables. 'Risk taking' was modestly associated with such organizational mechanisms as information sharing in the organization, goal setting in the organization, and high

performance-linked human resource management practices. Thus, shared values and mechanisms that support entrepreneurship and effective implementation of initiatives and innovative proposals may spawn widespread creativity in the organization.

When the organizational culture reflects certain priorities and concerns shared throughout the organization, and the culture is one of heavy interactivity and improvisation, innovation rates can be high. IT and telecom technologies have opened up a great potential for innovative applications in many areas of the organization. The box on *Communication Richness, Shared Priorities*, and *IT-related Creativity* reports the findings of some American research on how consensus among priorities in IT applications and heavy face-to-face interactivity between departmental members led to high rates of IT-related innovativeness.







### **Creativogenic Workforce Climate**

For widespread creativity, organizational creativity must be manifested even at lower levels. Teresa Amabile and her associates have argued that several categories of the workplace-related practices in organizations shape operating-level creativity.

Finally, the sixth category of favourable practices is ‘optimal’—not too high nor too low—workload pressure and ‘optimal’—again not impossibly high nor vanishingly low – sense of challenge.

The research of Amabile and her associates on 141 pairs of projects in which one was judged to be high on creativity and the other was judged to be low on creativity seemed to substantiate their model of workplace creativity. The higher creativity projects scored especially higher on six aspects of the workplace practices—challenge in work, organizational encouragement to creativity, work group support, sense of autonomy and sense of ownership, and supervisory encouragement.

Besides these practices, Daniel Plunkett’s study of three sizeable groups of a US public agency indicated that participative, consensual identification of work-related problems increased feelings of participation and the creativity of the individual’s solutions.

### **Values and Practices that Mould a Creativogenic Climate in an Academic Setting**

Organizational climate is a matter of perception and feeling that staff have about what behaviour is encouraged and what is not encouraged. Do people feel that self-initiated achievement is honoured, or is compliance with instructions expected? Similarly, do people feel like displaying and developing their work-related creativity, or do they feel averse to doing so? A Swedish study by Göran Ekvall and Lars Ryhammar sheds some light on the creativogenic climate, what shapes it, and what are its consequences.

The faculty at the Örebro University in Sweden rated the organizational climate at the University. The dimensions of organizational creativity climate that were measured included such positive aspects as sense of challenge, freedom, support for ideas, trust/openness, dynamism/liveliness, playfulness, and risk taking as well as a negative aspect—sense of blockage through conflicts. Data was also gathered about departmental creativity, organizational structure, basic values, leadership style and competence of departmental head, workload pressure, and sufficiency of resources. Some 130 members—over half of the faculty—provided the data.

Creativity climate was most strongly and positively associated with values related to good human relations at work, values favouring organizational change/development/ entrepreneurship/flexibility, and 'academic' values (primacy of teaching and research, high quality academic work, etc.) Nearly equally strongly associated with the creativogenic climate were two measures of the department head's style—the change-centred and the employee-centred leadership styles. Resources sufficiency, too, was associated, although less strongly.

Creativogenic climate was moderately associated with perceived departmental creativity. Some of the components of creativogenic climate correlated more strongly with perceived departmental creativity than others. The components with the strongest associations were dynamism/liveliness, support for ideas, risk taking, and sense of challenge.

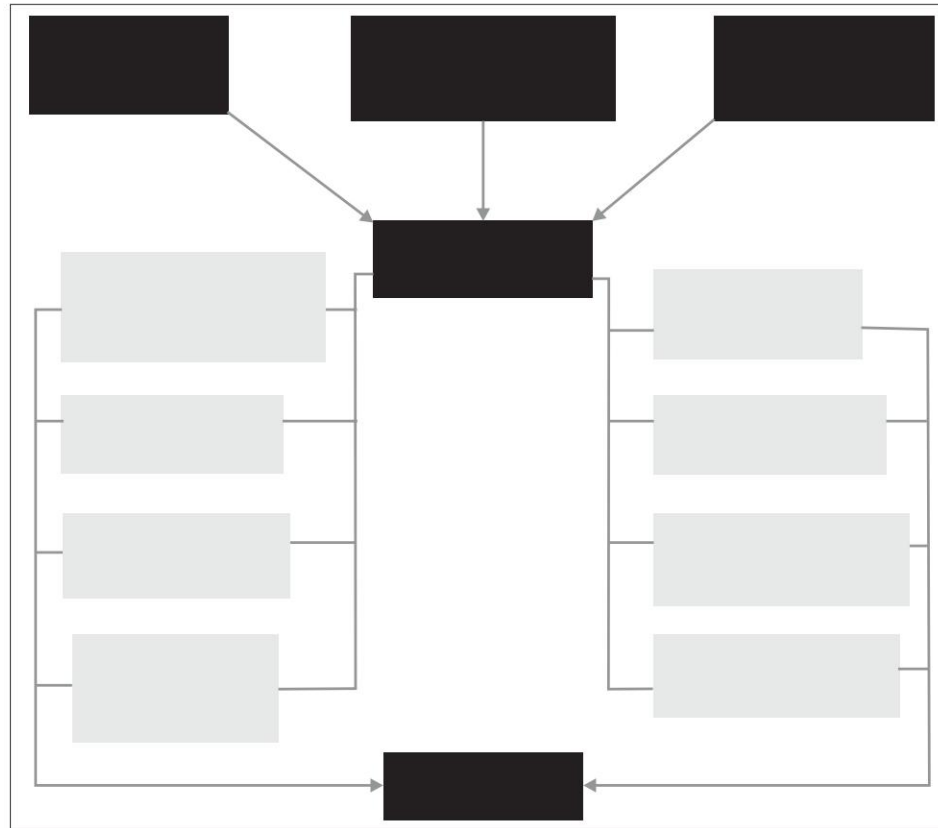
In a nutshell, the findings suggest that academicians believe that work environments that are experienced as dynamic, open, entrepreneurial, unrestrictive, and people-centred, in association with a transformation favoring leadership style may create the sort of work climate that is favorable to creativity, and may indeed stimulate creative behaviour in the staff, especially if sufficient resources for the purpose are available.

2. Scarcity of equipment and other material resources needed to execute creative tasks
3. Lack of training necessary to develop skills, especially those for creativity
4. A conservative organizational culture in which new ideas and risk taking are not welcome, and making mistakes or changes is feared
5. A rigid, bureaucratic, hierarchical, and centralized organizational structure
6. Poor interpersonal relationships in the work group, especially conflicts, lack of dialogue, unreliability, non-acceptance of new ideas by colleagues, etc.
7. A noisy, uncomfortable, cramped physical environment
8. Power-related conflicts at the top, such as frequent changes that lead to ad hoc changes in goals and norms
9. Poor emoluments and lack of reward for creative work
10. Non-challenging, excessively routine, repetitive work
11. Excessive workload and time pressure.

These blocks represent avoidable deprivations, constraints, and uncongenial interpersonal relationships. These need to be avoided as much as it is necessary to institutionalise creativogenic workplace practices.

## **ORGANIZATIONAL DESIGN FOR SUSTAINED AND SUCCESSFUL CREATIVITY**

Let me describe a model of organizational design for successful creativity. It has worked for me as a researcher and also as a consultant to organizations seeking to become more innovative. The design helps the organization, regardless of whether it is commercial or not, to facilitate creativity at all levels and in all functions, in technological matters as well as managerial matters, and also to ensure that the creativity that is generated is, for the most part, value adding. Figure 8.1 sets out the model. It says that essentially there are three sets of forces that, if harnessed and orchestrated properly, can ready the organization for launching a fairly continuous stream of innovations. These are (1) choosing to operate in certain kinds of domains of activity (markets, sectors, niches), (2) adopting certain kinds of goals of major stakeholders (owners, vendors, customers, unions, financial institutions, etc.), and



(3) harbouring certain kinds of management visions. These choices prepare the organization for a burst of creativity. But the creativity needs to be channelled into different sorts of concrete **actions** that reflect innovative rather than humdrum choices. These actions cover certain types of scanning for opportunities and threats, an innovations-based competitive strategy, an innovations-based growth strategy, certain forms of control, motivation and conflict resolution that favour innovations, culture building that facilitates innovations, and several mechanisms that stimulate innovations. All of these elements, except mechanisms to spur innovations, are briefly discussed below. Some 16 mechanisms to spur innovations are discussed separately in Chapter 9.

## **Domain Choices**

There are domains that sizzle with the new, the unexpected, the complex, and the shocking, and then there are cradle-like domains that lull with the familiar, the simple, the stable, and the safe. Organizations, at least over the medium to long-term, can choose to operate in unfamiliar versus familiar, turbulent versus relatively stable, high growth versus mature, technologically or otherwise sophisticated versus relatively less sophisticated domains, competitive versus less competitive domains, and so forth. Take the choice of markets. An American company can choose to operate only in its familiar domestic markets, or aggressively expand operations in the relatively unfamiliar world beyond the domestic markets. If it expands overseas, it can choose to get into fast growth, turbulent markets of China, India, and Asia-Pacific countries, or restrict itself to the more stable and slower growth West European markets. The company can choose to operate in the premium quality, high-tech segments of its markets, or in the larger but lower sophistication segments. It can choose to operate in markets that are feistily competitive versus markets where competition is heavily regulated by an oligopoly or by the state. Choices that favour unfamiliarity, turbulence, sophistication, competitiveness, and so forth would likely veer the organization towards innovativeness, while plumping for familiarity, stability, mass market, and lack of competition would likely thrust the organization away from innovativeness. Sizzling domains induce discontinuity with past choices; lulling domains induce continuity.

## **Stakeholders' Expectations**

Where critical stakeholders are demanding, the organization tends to undergo powerful conflicting pressures. Demanding customers want best value for money while demanding vendors want 'fair' price and steady offtake; demanding unions want job security, high emoluments, excellent working conditions; financial institutions expect prompt payment of interest and due instalments; demanding government agencies want good corporate citizenship; and demanding owners, of course, want sustained high rate of return on their investments. Such contrary pressures can paralyse a lesser management. But a high-quality management may feel challenged enough in the face of limited financial, human and technological resources to resort to innovation.

## **Management's Grandeur Vision**

Management's visions are of future organizational grandeur, and that grandeur can take many forms.

quality, or employment desirability. Another grandeur vision is future ‘bigness’, clout in the marketplace or dominance, such as the vision of the organization becoming the largest player in the industry, or a true MNC. Still another grandeur vision is having a noble mission of contributing something of value to society or a field, or living by some exalted values, and so forth—Gandhi’s notion, for example, of being a trustee for the interests of various stakeholders, or of operating on the basis of honesty and transparency. Whatever the vision of grandeur, if it is tenaciously held, it will induce search for innovative means to achieve it, for easy options quickly run out, and resource scarcity quickly asserts itself.

### **Innovation-inducing Scanning**

The world is full of opportunities, if the organization knows where to look and how to creatively interpret what it finds. Much is going on outside each organization—technological changes; success and failures of new product introductions by other organizations; changes in government policies that render old formulas of success obsolete; and demographic changes, such as changes in birth and death rates, in the population’s age composition and health profile, in the relative size of the middle class, in urbanization, in the education profile of the population, and so forth. Management may choose to just look to its left and right, or focus only on developments in its domain of activity; or it may develop antennas through intelligence networks, market research, R&D, long-term forecasting, far-ranging travel by managers and their participation in conferences, seminars, and symposia, scanning of periodicals, contacts with the academia, active involvement in trade and industry associations, and induction of experts on the board or its committees to keep itself informed about globally arising threats and opportunities.

### **Innovations-based Competitive Strategy**

The literature on competitive strategy discusses a number of alternative strategies—low price strategy, product differentiation strategy, niche strategy, etc.

niche and that niche only, so that it out-competes products serving several market segments. Mazda, for instance, developed cars specifically for Japanese women (who were quite short) and for persons with physical disabilities.



### **Innovations-based Growth Strategy**

Growth comes from expansion, diversification, joint ventures, acquisitions, and so forth. But then, how are these growths based—on innovated or customary products? Take a power utility like National Thermal Power Corporation (NTPC) of India, set up by the Government of India in the early 1980s. This company initially set up 110 megawatt (MW) coal-based thermal power stations based on borrowed power plant designs. It expanded rapidly to become India's largest power utility and one of the world's largest. But it did not expand only by replicating the earliest 110 MW plants. Subsequently it internally designed 220 MW and 500 MW thermal power plants, later, combined cycle gas-based power plants, and expanded rapidly through these plants. Italtel, Italy, sought to grow through new telecom equipment innovated in collaboration with other European telecom majors.

### **Management Control to Facilitate Innovations**

Creative people generally dislike irksome bureaucratic controls, tight supervision, and the like. But control is a necessity in organization life, so that activities remain broadly compatible with the organization's goals rather than the idiosyncratic goals of individuals. The dilemma is resolved when most control is transferred to professionals and their work groups. Also, when individuals get a sense of ownership in their activities, they tend to behave like responsible professionals, who generally subject themselves to profession-based self-control. Increasingly, in a knowledge society, organizational members are highly educated professionals, and their work groups, too, tend to be knowledge groups with strong professional norms. These professional norms keep at bay undesirable or deviant behaviour. This does not mean that individuals should have no bosses, or should not be subject to rules and regulations, or should not be provided with financial incentives—these must be there in reasonable measures—but for innovators, perhaps the strongest motivations are a sense of challenge and a sense of autonomy, and so, if these are provided to individuals and teams, innovative activity should perk up.

conflicts. Periodic higher management review of each significant innovation that impacts more than one department can iron out larger conflicts, especially of a policy nature. An MIS for top management that tracks the progress of each innovation can be helpful in quickly spotting danger spots and heading them off.

### **Culture-building to Facilitate Innovations**

The organization culture that is innovation-friendly is the one that stresses uniqueness, experimentation, brainstorming, risk taking and entrepreneurship, novelty that works, and so forth. It is also the culture that emphasizes the effective implementation of chosen innovations and calls for stress on careful planning, monitoring, coordination, control etc.

Some organizations like to segregate the culture of innovation from the culture of professional management of innovations. Alza Research in California, US, a pharma company adopted the relatively unique mission of avoiding overdrugging by developing drugs that could be delivered directly only into the body's affected parts in the small amounts required at a constant rate for weeks or years. This mission was widely understood by the whole staff. To retain this culture, all marketing and manufacturing activities were hived off to another organization, so that Alza Research could retain its unique culture.

situation, and the consideration of various viewpoints and options. Indeed, Daniel Plunkett's research on the staff of an R&D firm indicated that participative, consensual identification of work-related problems increased both the sense of participation as well as the creativity of the solutions attempted by individuals.

Essence or idea creativity can be enhanced in the organization through various mechanisms. The sustained use of various techniques of creativity discussed in Chapter 4, especially of brainstorming, checklist of questions, and breakthrough, all fairly easy to use, can disseminate essence creativity widely in the organization. A 'think tank' of bright, versatile experts without operational responsibilities but mandated to seek breakthrough approaches and ideas on issues referred to them by the management can yield higher level, 'strategic' essence creativity. The use of various suggestions generating and continuous improvement oriented systems called 'kaizen' by the Japanese is another mechanism for spurring essence creativity at the level of operatives.

Elaborative or unique design creativity, too, can be enhanced through certain mechanisms. Here, design means not just new product design but also the design of processes, systems, structures, programmes, and activities. The more uniquely—and effectively—these are designed the greater would be the sustainable competitive advantage enjoyed by the organization. Special task forces, especially when they are multi-functional, can deliver unique designs when so mandated. Another mechanism that can yield unique designs is creative benchmarking. Normally, organizations benchmark themselves on important operating parameters with alike but more effective organizations like industry leaders or multinational entities in the same industry. These usually yield programmes for incremental improvements that are easily replicable by rival organizations. Benchmarking is creative when it is extended to areas usually ignored for benchmarking, such 'vague' areas as organizational culture, style of management, leadership, and ways of achieving high levels of cooperation, loyalty, and innovation. It is also creative when the target of benchmarking is off-beat, such as excellent organizations outside one's industry, like an NGO, the army, a religious institution, a charity, and so forth. What works in these, and why, can yield unique programmes for adding elaborative creativity to existing systems and processes of the organization. 'Creative overloading,' too, can deliver innovative and effective designs. Generally, managements use 'stretch' targets of topline and bottomline as overload mechanisms to extract more juice out of existing systems. Creative overloads occur when they force fundamental reappraisals of every existing system, such as readying the organization for ISO certification or implementing ERP (economic resource planning) in just one year. They occur when every operation is asked to justify itself in terms of its ability to contribute more than what outsourcing could. They occur, for instance, when expense budgets are mandated to be cut (in real terms) by  $X\%$  a year. Another mechanism that can yield elaborative or design creativity is to set up two or more teams and mandate them to develop entirely different designs of products or processes or systems. This mechanism is called 'parallel groups.' At the end of the developments, there is a 'shoot out' at which the alternative designs are rigorously compared to synthesize the best one.

Expressive or communication creativity can be enhanced in several ways. Specialists in aesthetics, creative communications, creative product design, 'ghost writers' and the like can be hired. Competitions can be held for coming up with novel but effective logos, labels, slogans, publicity themes, organization-related press releases, decors and so forth. Teams can be formed to 'beautify' the organization's properties. Elegance in various forms of communication and expression can be applauded and rewarded.

A couple of mechanisms can powerfully enhance entrepreneurial or new ventures creativity. One is the use of 'intrapreneurship,' and the other is the multiplication of change agents. Intrapreneurship is the process of a corporate identifying and supporting a number of new venture proposals with high essence creativity that may not necessarily be related to the corporate's core businesses. After appropriate development they are carefully assessed by top management for their commercial potential. The ones passing muster are scaled up, and the rest are killed. Multiplication of change agents is a process of identifying those with fire in the belly for change and new initiatives, training them for change agent roles, and empowering them to undertake various initiatives within the organization.

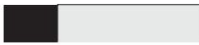
Abraham Maslow considered creativity to be a higher order need in his model of human motivation.

## DIAGNOSTIC INSTRUMENT

Annexure 8.1 to this chapter reproduces an instrument that measures an organization on various dimensions of the model of successful organizational creativity sketched out above. It provides, for benchmarking purposes, the averaged scores for the six best performers among 30 Indian corporate organizations. On practically every dimension, the scores of the best performing organizations are higher than the averaged scores for the 30. This, of course, is to be expected if the model has any validity. It may, therefore, be worthwhile for managements desirous of creating successfully innovative organizations to have this instrument filled out by several managers, average their scores on each item, compute the scores for the organization and compare them with the scores for the best performance organizations. It would be helpful to circle all those items where the organization's score is over 20 percentage points less than that of the best performing organizations. The management should look for patterns in 'weaknesses' and then brainstorm on how to get rid of them. It should be remembered that there is an underlying logic and connectivity among all the constituents of the model. Weakness in any item or dimension may disproportionately erode the capability of the organization to be successfully innovative.

## CONCLUDING COMMENTS

*This chapter outlines the organizational design that can facilitate a continuous flow of successfully implemented creative ideas and innovations, both administrative and technical, and in all the functions and at all the levels of the organization (see Figure 1). The design facilitates both divergent and convergent thinking, autonomy and control, and also the organizational mechanisms needed for successful launch and implementation of innovations. As Annexure 8.1 shows, this design is not wishful thinking; it can be practised and yields excellent results.*

A large rectangular area with a gray border, intended for writing. It contains five sets of horizontal dotted lines. Each set of lines is preceded by a gray circle, which serves as a bullet point or a marker for the start of a new entry. The circles are positioned on the left side of the writing area.



➔

6 If you are looking for a job in a 'creative' organization, would you look for it in a well-established, large MNC with a very strong market position, or in a young, medium-sized unit in a competitive industry?

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## ANNEXURE 8.1

### Organizational Design for Creativity Diagnostic Instrument

This instrument should be filled out by several senior managers of the organization anonymously. Their scores should be averaged to secure your organization's score.

*Name of Organization:*

*Date:*

For the purposes of measuring innovativeness factors, a number of scales are provided below, grouped under different heads. Each scale has 6 points ranging from 1 to 6, and you have to circle that number out of the 6 that best approximates your organization's situation. For each scale, two contrasting statements are given as anchors for 1 and 6 respectively, one to the left of the scale and one to the right. The statement to the left of the scale is equivalent to 1 in the scale. If you believe that the statement to the left applies to your organization pretty completely, you should circle 1. If, however, you believe that the left statement applies to your organization to a substantial extent but not really fully, you should circle 2. If you believe that the left statement applies on the whole to your organization, but with significant reservations, you should circle 3.

You should similarly interpret numbers 4, 5, 6. Number 6 means your belief that the right statement applies pretty completely to your organization; 5, that the right statement applies substantially but not fully; 4, that on the whole the right statement applies to your organization but with significant reservations.

Please remember that for each scale you can only circle one number. You may like therefore to read first the left as well as the right statements attached to the scale, decide which side more truly represents the state of affairs vis-à-vis your organization, and then decide which number best represents the state of affairs.

In addition to rating the present situation in the above manner, please also write your rating for the situation three years ago, in the space provided below each scale.

Let us take an example. Suppose a scale is as follows:

Your organization makes no effort to export.	← 1 2 3 4 5 6 →	Your organization has a very strong export orientation.
-------------------------------------------------	-----------------	------------------------------------------------------------

Your rating for the situation 3 years ago \_\_\_\_\_

If you think the organization has a very strong export orientation, you should circle 6. But if you think it has a strong (but not very strong) export orientation, you should circle 5. If you think it has only a moderately strong export orientation, circle 4. If it is still weaker, circle, 3; still weaker, 2; and if it has no export orientation at all, circle 1. Remember you can circle only one of the six numbers, the one that in your view best describes the situation. Similarly, for the situation 3 years back, please write one number from 1 to 6 that best describes the situation 3 years back.

### A. Choices of Operating Domains of Your Organization

01. The organization operates in a rather stable product market environment, with only minor, predictable changes in its output markets.      ← 1 2 3 4 5 6 →      The organization operates in a highly turbulent product market environment, and has to cope with many unexpected changes in its output markets.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. The organization operates in rather stable input markets, with only minor, predictable changes in the prices and availability of key inputs like power/fuel, components, raw materials, equipment, human resources, funds, etc.      ← 1 2 3 4 5 6 →      The organization operates in highly turbulent input markets, and has to cope with many unexpected changes in the prices and availability of key inputs like power/fuel, components, raw materials, equipment, human resources, funds, etc.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. The organization operates in a rather stable regulatory/ political environment, with only minor, predictable changes vis-à-vis legal, political, government policy or government bureaucracy aspects of the environment.      ← 1 2 3 4 5 6 →      The organization operates in a highly turbulent regulatory/political environment, and has to cope with many unexpected changes vis-à-vis legal requirements, government policies, political/bureaucratic demands, etc.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

\_\_\_\_\_

04. The organization's clients / customers are, by and large, relatively naive and undemanding in terms of quality, price, delivery, etc. ← 1 2 3 4 5 6 → The organization's clients/ customers are, by and large, highly sophisticated and demanding in terms of quality, price, delivery, etc.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

05. The organization faces only minimal competitive or other hostile pressures from its environment. ← 1 2 3 4 5 6 → The organization is highly vulnerable on account of intense competitive pressures or other hostile outside forces.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

06. The organization's markets are quite stagnant. ← 1 2 3 4 5 6 → The organization's markets are growing extremely rapidly.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

## B. Pressures of Stakeholders on the Management

01. The owners/board of the organization impose no ambitious or conflicting goals on the management of the organization. ← 1 2 3 4 5 6 → The owners/board of the organization requires the management to pursue many ambitious, conflicting goals (e.g., high profitability and being an excellent corporate citizen).

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. The performance of the organization during recent years has been very satisfactory. ← 1 2 3 4 5 6 → The performance of the organization during recent years has been very disappointing.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. The management is virtually under no pressure from union(s), vendors, financiers, etc. ← 1 2 3 4 5 6 → The management is under intense pressure from union(s), vendors, financiers, etc. to meet their demands.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

### C. Strategic Management

01. The management has no desire to position the organization as a unique one in its industry. ← 1 2 3 4 5 6 → The management has a strong desire to position the organization as a unique one in its industry in the way it operates.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. The management has a strong commitment to stick to its market strongholds and product profiles. ← 1 2 3 4 5 6 → The management has a strong commitment to diversify the organization's products/activities and enter new markets.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. The management has a strong commitment to offer standardized products/services. ← 1 2 3 4 5 6 → The management has a strong commitment to offer customized products/services.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

04. The management has a strong preference for offering well-established or proven products/services. ← 1 2 3 4 5 6 → The management has a strong preference for pioneering new or novel products/services, that is, be the first in the market to offer new products / services.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

05. The management gives priority to relatively standardized offerings. ← 1 2 3 4 5 6 → The management gives priority to product differentiation and high quality offerings.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

06. The management strongly prefers relatively 'low tech' technologies, products, or services. ← 1 2 3 4 5 6 → The management strongly prefers sophisticated 'high tech' technologies, products or services.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?



**D. Management Style**

01. The management is quite risk averse and conservative.      ← 1 2 3 4 5 6 →      The management strongly prefers calculated risk taking and entrepreneurship.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. The management strongly emphasizes clear-cut operations: standard operating procedures, clear lines of authority, written job descriptions, job specialization, hierarchical control, and careful planning and programming of activities.      ← 1 2 3 4 5 6 →      The management strongly emphasizes getting results through operating flexibility, broad job mandates and operating autonomy for managers but with accountability for results, extensive vertical and horizontal consultation and interaction for evolving decisions.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. The management strongly rewards compliance with orders and with laid-down procedures, and punishes any deviation from these.      ← 1 2 3 4 5 6 →      The management strongly rewards successful innovation, creativity, resourcefulness, experimentation, and improvisation.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

04. The management essentially con- ← 1 2 3 4 5 6 → The management aggressively  
fines its attention to areas of scans the national and interna-  
current priorities and operations. tional environment for opportu-  
nities, including those that are not  
directly related to its areas of  
current priorities.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

05. Top managers leave contacts with ← 1 2 3 4 5 6 → Top managers continuously  
customers, suppliers, competitors, interact with customers, suppli-  
etc. pretty much to their subordi- ers, competitors for securing or  
nates in marketing, operations, testing out ideas, suggestions, and  
purchase department, etc. possible joint ventures.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

06. The management's sensing of ← 1 2 3 4 5 6 → The management likes to com-  
opportunities and areas of mission periodically professional  
improvement is largely done market surveys, SWOT-  
informally and intuitively, and the  
management avoids formal, pro- \_\_\_\_\_  
fessional market or internal diag- \_\_\_\_\_  
nostic studies.

\_\_\_\_\_

07. The top management's only concern is with business goals like profitability, efficiency, and growth.      ← 1 2 3 4 5 6 →      The top management emphasizes business ethics and corporate social responsibility as much as the pursuit of business goals.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

08. The top management is quite authoritarian.      ← 1 2 3 4 5 6 →      The top management is strongly participative and consultative.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

### E. Structure

01. The management does not like to tinker with the administrative structure—it has not been changed for many years now.      ← 1 2 3 4 5 6 →      There is a great deal of administrative flexibility—often roles are changed, new sections are created and old ones disbanded, and people are transferred across departments.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. The managerial structure is very tall, with 7 or more levels in the hierarchy.      ← 1 2 3 4 5 6 →      The managerial structure is very flat—there are basically only 4 or fewer levels in the hierarchy.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. This is quite a centralized organization, and many operating decisions are taken by top management or need to be cleared by top management. ← 1 2 3 4 5 6 → This is a very decentralized organization, with the top management only concerned with corporate policy level issues, leaving all operating decisions to lower levels in the organization.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

04. The structure is predominantly functional, with people assigned to specialist/functional departments whose heads report to top management at the corporate or SBU level. ← 1 2 3 4 5 6 → The structure is predominantly a matrix one, with most specialized staff belonging to functional departments also assigned to project teams, divisions, etc., that is, have dual responsibility.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

## F. Practices and Culture

01. There is virtually no use of multi-disciplinary teams or task forces. ← 1 2 3 4 5 6 → There is extensive use of multi-disciplinary project teams and task forces for probing problem areas, and developing fresh but workable options and opportunities.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. Control emphasized here is ← 1 2 3 4 5 6 → Control emphasized here is mainly self-control exercised by individuals on the basis of professional norms held by them and their peer groups.
- mainly a formal one, based on explicit rewards, punishments, incentives, laid-down standard operating procedures, and supervision by the boss.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. The management does not disseminate to the rank and file the challenges faced by the organization. ← 1 2 3 4 5 6 → The management makes it a point to disseminate to the rank and file the challenges before the organization through newsletters or otherwise and invites their ideas or suggestions for meeting these challenges.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

04. Management does not promote quality circles and the like. ← 1 2 3 4 5 6 → The management strongly encourages employees to form quality circles and the like.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

05. The targets for the organization/department are set only by their top bosses. ← 1 2 3 4 5 6 → At the time of target setting exercises, a special effort is made to involve the staff, and to elicit their views and ideas.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

06. The management strongly encourages employees having a dispute to seek the intervention of bosses. ← 1 2 3 4 5 6 → The management strongly encourages employees to resolve their differences by direct face-to-face negotiation without interference by their bosses.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

07. There is virtually no emphasis on learning and skills enhancement through planned HRD. ← 1 2 3 4 5 6 → There is strong emphasis on learning and skills enhancement through planned HRD.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

08. Whenever the management recruits managerial or technical staff, the main criteria are technical competence and ability to carry out instructions. ← 1 2 3 4 5 6 → The management gives high priority to recruiting bright, innovative young professionals and to giving them challenging assignments.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

### G. Innovative Success

01. The organization is not known for its innovativeness. ← 1 2 3 4 5 6 → The organization has an excellent image of being an innovative organization.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. The organization offers today ← 1 2 3 4 5 6 → At least a third of the organization's current revenues are derived from new products or services it itself innovated in the past 3 years.  
more or less the same products or services it offered 3 years back.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. The organization has not implemented any technological process innovations in the past 3 years. ← 1 2 3 4 5 6 → The organization has an outstanding record of successfully implementing a stream of technological process innovations in the past 3 years.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

04. The organization has not implemented any operations-related innovations in the past 3 years. ← 1 2 3 4 5 6 → During the past 3 years, the organization has successfully implemented many operations-related innovations such as quality circles, computerization of operations, business process reengineering, total quality management, value engineering, etc.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

05. The organization has not implemented any significant administrative or managerial innovations in the past three years. ← 1 2 3 4 5 6 → The organization has an outstanding record of implementing successfully in the past three years numerous innovations in structure, strategy, management systems and practices, etc.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

## H. Management of Innovation

01. There is no practice of resorting to group brainstorming before taking decisions on key issues. ← 1 2 3 4 5 6 → Before taking decisions on key issues, almost always group brainstorming is resorted to for identifying many fresh ideas, approaches, and solutions.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. There is no encouragement to managers and technical staff to participate in seminars and conferences or to visit leading organizations with a view to pick up ideas for innovation. ← 1 2 3 4 5 6 → The management strongly encourages managers and technical staff to participate in seminars and conferences, and visit leading organizations, to pick up ideas for innovation.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. Benchmarking is not practised in this organization. ← 1 2 3 4 5 6 → Benchmarking with nationally or internationally best practices is very prevalent, and is a major source of innovations.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

04. The organization does not do any R&D. ← 1 2 3 4 5 6 → The organization has a strong commitment to R&D.



Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

05. The organization has not entered into any technical collaborations. ← 1 2 3 4 5 6 → The organization has entered into several technical collaboration ventures to procure and develop innovative products and processes.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

06. It is not permissible to bend or bypass rules even when they impede innovation or desirable change. ← 1 2 3 4 5 6 → It is quite permissible here to bend rules or even bypass them if they come in the way of successful innovations or desirable changes.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

07. Innovations or key changes are seldom, if ever, planned out in detail before implementation. ← 1 2 3 4 5 6 → Almost invariably, every significant innovation or change is carefully planned out, with phases and reviews built into the plan.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

08. The organization has no system for eliciting and rewarding the creative ideas of employees. ← 1 2 3 4 5 6 → The organization has a very attractive system for obtaining and rewarding creative ideas of employees.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

09. There is no system of post-implementation reviews of innovations and changes.      ← 1 2 3 4 5 6 →      Invariably one or more post-implementation reviews are done of all significant innovations or changes to make appropriate modifications.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

10. Implementation of innovations is usually attempted departmentally through line managers.      ← 1 2 3 4 5 6 →      Implementation of innovations is usually assigned to specially set up cross-functional or inter-departmental teams.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

11. Top management almost never gets involved in monitoring the progress of significant innovations and changes.      ← 1 2 3 4 5 6 →      Top management invariably gets involved in monitoring the progress of significant innovations and changes.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

12. The management does not encourage intrapreneurship.      ← 1 2 3 4 5 6 →      Management is strongly committed to intrapreneurship, that is, to encouraging with funding and facilities people with entrepreneurial talents to develop in-house exciting new product/process ideas.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

13. The management has no strategy ← 1 2 3 4 5 6 → The management has a definite strategy for forcing the pace of innovation, such as an ambitious target of percentage of sales from entirely new products; or percentage annual cost reduction/productivity increase; or securing prestigious innovation awards, patents, etc.

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

### I. Competitive Corporate Excellence

Compared to the performance of best performing organizations in your country's relevant sector, industry, or in your line of activity or business, how does your organization rate on each of the following? Please circle the appropriate number:

01. Level of profitability    Very *low* compared to → 1 2 3 4 5 6 ←    Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

02. Growth rate of revenues / sales / level of activity    Very *low* compared to → 1 2 3 4 5 6 ←    Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

03. Morale of employees (as judged by levels of absenteeism, turnover, strikes, employees' relationship with management, etc.)      Very *low* compared to best organizations      → 1 2 3 4 5 6 ←      Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

04. Financial strength (liquidity, reserves, borrowing capacity, etc.)      Very *low* compared to best organizations      → 1 2 3 4 5 6 ←      Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

05. Public image and goodwill (as judged by customer or client loyalty, premium on employment with the organization, etc.)      Very *low* compared to best organizations      → 1 2 3 4 5 6 ←      Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

06. Adaptability (ability to diversify successfully, quickly change strategies, seize opportunities, compete successfully, etc.)      Very *low* compared to best organizations      → 1 2 3 4 5 6 ←      Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

07. Stability in the level of performance from one year to another    Very *low* compared to best organizations    → 1 2 3 4 5 6 ←    Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

08. Operating efficiency (as judged by labour productivity, ratio of overheads to revenues, etc.)    Very *low* compared to best organizations    → 1 2 3 4 5 6 ←    Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

09. Innovativeness (successful adoption of innovations in various operations and activities of the organization)    Very *low* compared to best organizations    → 1 2 3 4 5 6 ←    Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

10. Impact on industry/sector (through pioneering impact making products, technologies, activities, etc.)    Very *low* compared to best organizations    → 1 2 3 4 5 6 ←    Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

11. Corporate social responsibility (environmental protection, priority to employing people from underprivileged communities, help to local communities, etc.)      Very *low* compared to best organizations → 1 2 3 4 5 6 ←      Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

12. Business ethics (transparency in hiring and business practices, full disclosure of profits and losses, meritocracy in hiring, avoidance of bribing, misleading ads, etc.)      Very *low* compared to best organizations → 1 2 3 4 5 6 ←      Very *high* compared to best organizations

Your rating for the situation 3 years ago \_\_\_\_\_  
Any comments?

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## Score on Organizational Design for Creativity

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			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
02.	The organization operates in <u>rather stable input markets</u> , with only <u>minor, predictable changes</u> in the prices and availability of key inputs like power/fuel, components, raw materials, equipment, human resources, funds, etc.	0←→100	The organization operates in <u>highly turbulent input markets</u> , and has to cope with many <u>unexpected changes</u> in the prices and availability of key inputs like power/fuel, components, raw materials, equipment, human resources, funds, etc. <b>Gain</b>	50 (44)  <b>+06</b>
03.	The organization operates in rather stable regulatory/political environment, with only minor, predictable changes/demands vis-à-vis legal, political, government policy or government bureaucracy aspects of the environment.		The organization operates in a highly turbulent regulatory/political environment, and has to cope with many <u>unexpected changes</u> vis-à-vis legal requirements, government policies, political/bureaucratic demands, etc. <b>Gain</b>	54 (49)  <b>+05</b>



			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
04.	The organization's clients/customers are, by and large, relatively <u>naive</u> and <u>undemanding</u> in terms of quality, price, delivery, etc.	0←→100	The organization's clients/customers are, by and large, highly <u>sophisticated</u> and <u>demanding</u> in terms of quality, price, delivery, etc. <b>Gain</b>	89 (66)  <b>+23</b>
05.	The organization faces only <u>minimal</u> <u>competitive</u> or other <u>hostile pressures</u> from its environment.	0←→100	The organization is <u>highly vulnerable</u> on account of intense <u>competitive pressures</u> or other <u>hostile</u> outside forces. <b>Gain</b>	77 (57)  <b>+20</b>
06.	The organization's <u>markets</u> are <u>quite stagnant</u> .	0←→100	The organization's <u>markets</u> are <u>growing extremely rapidly</u> . <b>Gain</b>	66 (61)  <b>+05</b>
<b>Overall choices of operating domains favourable to innovation (average for items 1 to 6 above)</b>			<b>Gain</b>	66 (54)  <b>+12</b>

## B. Pressures of Stakeholders on the Management

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
01.	The <u>owners/board</u> of the organization impose <u>no ambitious</u> or <u>conflicting goals</u> on the management of the organization.	0←→100	The <u>owners/board</u> of the organization requires the management to pursue many <u>ambitious, conflicting</u> goals (e.g., high profitability <u>and</u> being an excellent corporate citizen).	69 (59)
			<b>Gain</b>	<b>+10</b>
02.	The <u>performance</u> of the organization during <u>recent years</u> has been <u>very satisfactory</u> .	0←→100	The <u>performance</u> of the organization during <u>recent years</u> has been <u>very disappointing</u> .	18 (43)
			<b>Gain</b>	<b>-25</b>
03.	The management is virtually under <u>no pressure</u> from <u>union(s), vendors, financiers</u> , etc.	0←→100	The management is under <u>intense pressure</u> from <u>union(s), vendors, financiers</u> , etc. to <u>meet their demands</u> .	45 (44)
			<b>Gain</b>	<b>+01</b>
Overall pressure of stakeholders favourable to innovation (average for items 1 to 3 above)				44 (-49)
<b>Gain</b>				<b>-05</b>

### C. Strategic Management

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
01.	The management has <u>no desire</u> to position the organization as a unique one in its industry.	0←→100	The management has a <u>strong desire</u> to <u>position</u> the organization as a <u>unique one</u> in its industry in the way it operates. <b>Gain</b>	94 (74)  <b>+20</b>
02.	The management has a strong commitment to <u>stick to its market strongholds</u> and product profiles.	0←→100	The management has a strong commitment to <u>diversify</u> the organization's products/activities and enter <u>new</u> markets. <b>Gain</b>	64 (37)  <b>+27</b>
03.	The management has a strong commitment to offer <u>standardized products/services</u> .	0←→100	The management has a strong commitment to offer <u>customized products/services</u> . <b>Gain</b>	69 (50)  <b>+19</b>

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
04.	The management has a strong preference for offering <u>well-established or proven products/services.</u>	0←→100	The management has a strong preference for <u>pioneering new or novel products/services</u> , that is, be the first in the market to offer new products/services. <b>Gain</b>	65 (46)  <b>+19</b>
05.	The management gives priority to relatively <u>standardized</u> offerings.	0←→100	The management gives priority to <u>product differentiation</u> and <u>high quality</u> offerings. <b>Gain</b>	75 (64)  <b>+11</b>
06.	The management strongly prefers relatively 'low tech' technologies, products, or services.	0←→100	The management strongly prefers <u>sophisticated 'high tech'</u> technologies, products, or services. <b>Gain</b>	86 (75)  <b>+11</b>
<b>Overall Strategic Management Favourable to Innovation (average for items 1 to 6 above)</b>				75 (58)  <b>+17</b>

## D. Management Style

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
01.	The management is quite <u>risk averse</u> and <u>conservative</u> .	0←→100	The management strongly prefers <u>calculated risk taking</u> and <u>entrepreneurship</u> . <b>Gain</b>	69 (57)  <b>+12</b>
02.	The management strongly emphasizes <u>clear-cut</u> operations: <u>standard operating procedures</u> , clear <u>lines of authority</u> , <u>written job descriptions</u> , job <u>specialization</u> , <u>hierarchical control</u> , and careful <u>planning and programming</u> of activities.	0←→100	The management strongly emphasizes <u>getting results</u> through <u>operating flexibility</u> , broad job mandates and <u>operating autonomy</u> for managers but with <u>accountability</u> for results, extensive vertical and horizontal <u>consultation</u> and <u>interaction</u> for evolving decisions. <b>Gain</b>	81 (63)  <b>+18</b>

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
03.	The management strongly <u>rewards</u> compliance with <u>orders</u> and with laid-down <u>procedures</u> , and <u>punishes</u> any deviation from these.	0←→100	The management strongly <u>rewards</u> successful <u>innovation</u> , <u>creativity</u> , <u>resourcefulness</u> , <u>experimentation</u> and <u>improvisation</u> . <b>Gain</b>	80 (59)  <b>+21</b>
04.	The management essentially confines its attention to <u>areas of current priorities</u> and <u>operations</u> .	0←→100	The management aggressively <u>scans</u> the national and <u>international environment</u> for <u>opportunities</u> , including those that are not directly related to its areas of current priorities. <b>Gain</b>	55 (42)  <b>+13</b>
05.	<u>Top managers</u> leave <u>contacts</u> with customers, suppliers, competitors, etc. pretty much <u>to their subordinates</u> in marketing, operations, purchase department, etc.	0←→100	Top managers continuously interact with customers, suppliers, competitors for securing or testing out ideas, suggestions, and possible joint ventures. <b>Gain</b>	80 (62)  <b>+18</b>

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
06.	The management's <u>sensing of opportunities</u> and areas of improvement is largely done <u>informally</u> and <u>intuitively</u> , and the management <u>avoids</u> formal, <u>professional market</u> or internal diagnostic <u>studies</u> .	0←→100	The management likes to commission <u>periodically professional market surveys</u> , <u>SWOT</u> diagnostic studies, <u>reorganization</u> studies, <u>morale</u> surveys, <u>customer</u> satisfaction surveys, etc. to identify new opportunities and areas of improvement.	76 (51)
			<b>Gain</b>	<b>+25</b>
07.	The top management's only concern is with business goals like profitability, efficiency, and growth.	0←→100	The top management emphasizes business ethics and corporate social responsibility as much as the pursuit of business goals.	85 (73)
			<b>Gain</b>	<b>+12</b>
08.	The top management is quite authoritarian.	0←→100	The top management is strongly participative and consultative.	78 (70)
			<b>Gain</b>	<b>+08</b>
<b>Overall management style favourable to innovation (average for items 1 to 8 above)</b>				76 (60)
<b>Gain</b>				<b>+16</b>

## E. Structure

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
01.	The management does not like to tinker with the administrative structure—it has not been changed for many years now.	0←→100	There is a great deal of administrative flexibility—often roles are changed, new sections are created and old ones disbanded, and people are transferred across departments. <b>Gain</b>	82 (52)  <b>+30</b>
02.	The managerial structure is very tall, with 7 or more levels in the hierarchy.	0←→100	The managerial structure is very flat—there are basically only 4 or fewer levels in the hierarchy. <b>Gain</b>	77 (66)  <b>+11</b>



			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
03.	This is quite a <u>centralized</u> organization, and many <u>operating</u> decisions are taken by <u>top management</u> or need to be cleared by top management.	0←→100	This is a very <u>decentralized</u> organization, with the top management only concerned with corporate policy level issues, leaving <u>all operating decisions</u> to <u>lower levels</u> in the organization. <b>Gain</b>	69 (61)  <b>+08</b>
04.	The structure is predominantly <u>functional</u> , with people assigned to specialist/functional departments whose heads report to top management at the corporate or SBU level.	0←→100	The structure is predominantly a <u>matrix</u> one, with most specialized staff belonging to functional departments also assigned to project teams, divisions, etc., that is, have dual responsibility. <b>Gain</b>	57 (47)  <b>+10</b>
<b>Overall structure favourable to innovation (average for items 1 to 4 above)</b>				71 (57)  <b>+14</b>

## F. Practices and Culture

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
01.	There is virtually <u>no use of multi-disciplinary teams</u> or <u>task forces</u> .	0←→100	There is <u>extensive use of multi-disciplinary</u> project teams and <u>task forces</u> for probing problem areas, and developing fresh but workable options and opportunities. <b>Gain</b>	77 (53)  <b>+24</b>
02.	<u>Control</u> emphasized here is mainly a <u>formal one</u> , based on explicit rewards, punishments, incentives, laid-down standard operating procedures, and supervision by the boss.	0←→100	<u>Control</u> emphasized here is mainly self-control exercised by individuals on the basis of <u>professional norms</u> held by them and their <u>peer groups</u> . <b>Gain</b>	57 (55)  <b>+02</b>

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
03.	The management does <u>not disseminate</u> to the rank and file the <u>challenges</u> faced by the organization.	0←→100	The management makes it a <u>point to disseminate</u> to the rank and file the <u>challenges</u> before the organization through <u>newsletters</u> or otherwise and <u>invites</u> their <u>ideas</u> or suggestions for meeting these challenges. <b>Gain</b>	77 (56)  <b>+21</b>
04.	Management does not promote <u>quality circles</u> and the like.	0←→100	The management <u>strongly encourages</u> employees to form <u>quality circles</u> and the like. <b>Gain</b>	74 (59)  <b>+15</b>
05.	The <u>targets</u> for the organization/department are set only by their top bosses.	0←→100	At the time of <u>target setting</u> exercises, a special effort is made to <u>involve</u> the staff, and to elicit their <u>views</u> and <u>ideas</u> . <b>Gain</b>	80 (49)  <b>+31</b>

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
06.	The management strongly encourages employees having a <u>dispute</u> to seek the <u>intervention</u> of bosses.	0←→100	The management strongly encourages employees to resolve their differences by <u>direct</u> face-to-face <u>negotiation</u> without <u>interference</u> by their <u>bosses</u> . <b>Gain</b>	74 (59)  <b>+15</b>
07.	There is virtually <u>no emphasis</u> on <u>learning</u> and skills enhancement through planned <u>HRD</u> .	0←→100	<u>There is strong emphasis</u> on <u>learning</u> and skills enhancement through planned <u>HRD</u> . <b>Gain</b>	82 (46)  <b>+36</b>
08.	Whenever the management <u>recruits</u> managerial or technical staff, the <u>main criteria</u> are technical <u>competence</u> and ability to <u>carry out</u> <u>instructions</u> .	0←→100	The management gives <u>high priority</u> to <u>recruiting</u> <u>bright, innovative</u> <u>young professionals</u> and to giving them <u>challenging assignments</u> . <b>Gain</b>	79 (52)  <b>+27</b>
<b>Overall practices and culture favourable to innovation (average for items 1 to 8 above)</b>				75 (54)
<b>Gain</b>				<b>+21</b>

## G. Innovative Success

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
01.	The organization is <u>not known</u> for its <u>innovativeness</u> .	0←→100	The organization has an excellent <u>image</u> of being an <u>innovative</u> organization. <b>Gain</b>	67 (47)  <b>+20</b>
02.	The organization offers <u>today</u> more or less the <u>same</u> <u>products or services</u> it offered <u>3</u> <u>years back</u> .	0←→100	At least a <u>third</u> of the organization's current <u>revenues</u> are derived from <u>new products or services</u> it innovated in the past <u>3</u> years. <b>Gain</b>	57 (40)  <b>+17</b>
03.	The organization has <u>not implemented</u> any technological <u>process innovations</u> in the past 3 years.	0←→100	The organization has an outstanding <u>record</u> of successfully <u>implementing</u> a stream of <u>technological process innovations</u> in the past 3 years. <b>Gain</b>	73 (54)  <b>+19</b>

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
04.	The organization has <u>not implemented</u> any operations-related innovations in the past 3 years.	0←→100	<u>During the past 3 years, the organization has successfully implemented many operations-related innovations such as quality circles, computerization of operations, business process reengineering, total quality management, value engineering, etc.</u> <b>Gain</b>	83 (55)  <b>+28</b>
05.	The organization has <u>not implemented</u> any significant administrative or managerial innovations in the <u>past three years.</u>	0←→100	<u>The organization has an outstanding record of implementing successfully in the past 3 years numerous innovations in structure, strategy, management systems and practices, etc.</u> <b>Gain</b>	81 (51)  <b>+30</b>
<b>Overall innovational success (average for items 1 to 5 above)</b>				72 (50)  <b>+22</b>

## H. Management of Innovation

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
01.	There is <u>no practice</u> of resorting to <u>group brainstorming</u> before taking decisions on key issues.	0←→100	Before taking decisions on key issues, <u>almost always group brainstorming</u> is resorted to for identifying many <u>fresh ideas</u> , approaches, and solutions. <b>Gain</b>	83 (56)  <b>+27</b>
02.	There is <u>no encouragement</u> to managers and technical staff to <u>participate in seminars and conferences</u> or to visit leading organizations with a view to pick up ideas for innovation.	0←→100	<u>The management strongly encourages</u> managers and technical staff to <u>participate in seminars and conferences</u> , and <u>visit leading organizations</u> , to pick up ideas for innovation. <b>Gain</b>	82 (63)  <b>+19</b>
03.	<u>Benchmarking</u> is <u>not practised</u> in this organization.	0←→100	<u>Benchmarking</u> with nationally or internationally <u>best practices</u> is <u>very prevalent</u> , and is a major source of <u>innovations</u> . <b>Gain</b>	70 (46)  <b>+24</b>

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
04.	The organization does not do any R&D.	0←→100	The organization has a <u>strong commitment to R&amp;D.</u> <b>Gain</b>	71 (64) <b>+07</b>
05.	The organization has <u>not entered</u> into <u>any technical collaborations.</u>	0←→100	The organization has entered into <u>several technical collaboration ventures</u> to procure and develop <u>innovative products</u> and processes. <b>Gain</b>	81 (74) <b>+07</b>
06.	It is <u>not permissible</u> to <u>bend or bypass rules</u> even when they impede innovation or desirable change.	0←→100	It is <u>quite permissible</u> here to <u>bend rules</u> or even <u>bypass</u> them if they come in the way of successful innovations or desirable changes. <b>Gain</b>	67 (53) <b>+14</b>



			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
07.	Innovations or key changes are <u>seldom</u> , if ever, <u>planned out in detail before implementation</u> .	0←→100	<u>Almost invariably</u> , every significant <u>innovation or change</u> is carefully <u>planned out</u> , with <u>phases</u> and <u>reviews</u> built into the plan. <b>Gain</b>	80 (64)  <b>+16</b>
08.	The organization has <u>no system</u> for eliciting and <u>rewarding the creative ideas</u> of employees.	0←→100	The organization has a <u>very attractive system</u> for obtaining and rewarding <u>creative ideas</u> of employees. <b>Gain</b>	66 (54)  <b>+12</b>
09.	There is <u>no system</u> of post-implementation <u>reviews of innovations</u> and changes.	0←→100	<u>Invariably one or more post-implementation reviews</u> are done of all significant innovations or changes to make appropriate <u>modifications</u> . <b>Gain</b>	72 (59)  <b>+13</b>

			1 Your Organization's Score (in %)	2 Benchmark Score of High Performance Organizations (in %)
10.	<u>Implementation</u> of innovations is usually attempted <u>departmentally</u> through <u>line managers</u> .	0←→100	<u>Implementation</u> of innovations is usually assigned to <u>specially set up cross-functional or inter-departmental teams</u> . <b>Gain</b>	67 (55)  <b>+12</b>
11.	Top management almost <u>never gets involved</u> in <u>monitoring the progress</u> of significant innovations and changes.	0←→100	Top management invariably gets <u>involved</u> in <u>monitoring the progress</u> of significant innovations and changes. <b>Gain</b>	85 (72)  <b>+13</b>
12.	The management <u>does not encourage intrapreneurship</u> .	0←→100	Management is <u>strongly committed</u> to <u>intrapreneurship</u> , that is, to encouraging with funding and facilities people with <u>entrepreneurial talents</u> to <u>develop</u> in-house exciting new <u>product/process ideas</u> . <b>Gain</b>	65 (49)  <b>+16</b>

[illegible]

## I. Competitive Corporate Excellence

			1 Your Organization's Score (in %)	2 Benchmark Score of High Per- formance Organiza- tions (in %)
01. Level of profitability	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations <b>Gain</b>	83 (55) <b>+28</b>
02. Growth rate of revenues / sales / level of activity	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations <b>Gain</b>	76 (65) <b>+11</b>
03. Morale of employees (as judged by levels of absenteeism, turnover, strikes, employees' relationship with management, etc.)	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations <b>Gain</b>	78 (70) <b>+08</b>
04. Financial strength (liquidity, reserves, borrowing capacity, etc.)	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations <b>Gain</b>	81 (55) <b>+26</b>

				1 Your Organization's Score (in %)	2 Benchmark Score of High Per- formance Organiza- tions (in %)
05.	Public image and goodwill (as judged by customer or client loyalty, premium on employment with the organization, etc.)	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations	91 (81)
				<b>Gain</b>	<b>+10</b>
06.	Adaptability (ability to diversify successfully, quickly change strategies, seize opportunities, compete successfully, etc.)	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations	74 (60)
				<b>Gain</b>	<b>+14</b>
07.	Stability in the level of performance from one year to another	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations	80 (68)
				<b>Gain</b>	<b>+12</b>

				1 Your Organization's Score (in %)	2 Benchmark Score of High Per- formance Organiza- tions (in %)
08.	Operating effi- ciency (as judged by labour produc- tivity, ratio of overheads to revenues, etc.)	Very <i>low</i> com- pared to best organizations	0←→100	Very <i>high</i> com- pared to best organizations	79 (63)
				<b>Gain</b>	<b>+16</b>
09.	Innovativeness (successful adoption of innovations in various opera- tions and activities of the organization)	Very <i>low</i> com- pared to best organizations	0←→100	Very <i>high</i> com- pared to best organizations	78 (66)
				<b>Gain</b>	<b>+12</b>
10.	Impact on industry/sector (through pio- neering impact making prod- ucts, technolo- gies, activities, etc.)	Very <i>low</i> com- pared to best organizations	0←→100	Very <i>high</i> com- pared to best organizations	76 (65)
				<b>Gain</b>	<b>+11</b>

				1 Your Organization's Score (in %)	2 Benchmark Score of High Per- formance Organiza- tions (in %)
11.	Corporate social responsibility (environmental protection, priority to employing people from underprivileged communities, help to local communities, etc.)	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations	72 (67)
				<b>Gain</b>	<b>+05</b>
12.	Business ethics (transparency in hiring and business practices, full disclosure of profits and losses, meritocracy in hiring, avoidance of bribing, misleading ads, etc.)	Very <i>low</i> compared to best organizations	0←→100	Very <i>high</i> compared to best organizations	89 (87)
				<b>Gain</b>	<b>+02</b>
<b>Overall Competitive Corporate Excellence (average for items 1 to 12 above)</b>					80 (67)
					<b>Gain</b>
					<b>+13</b>

### Summary Scores on Organizational Design for Creativity

*Number of Respondents:*

	1 Your Organization's Score (in %)	2 Benchmark Score of High Perform- ance Organiza- tions (in %)
A. Overall Score, Choices of Operating Domain Favourable to Innovation	66 (54) <b>Gain</b>	<b>+12</b>
B. Overall Score, Pressure of Stakeholders Favourable to Innovation	44 (49) <b>Gain</b>	<b>-05</b>
C. Overall Score, Strategic Management Favourable to Innovation	75 (58) <b>Gain</b>	<b>+17</b>
D. Overall Score, Management Style Favourable to Innovation	76 (60) <b>Gain</b>	<b>+16</b>
E. Overall Score, Structure Favourable to Innovation	71 (57) <b>Gain</b>	<b>+14</b>
F. Overall Score, Practices and Culture Favourable to Innovation	75 (54) <b>Gain</b>	<b>+21</b>
G. Overall Score, Innovational Success	72 (50) <b>Gain</b>	<b>+22</b>
H. Overall Score, Management of Innovation Stimulating Mechanisms	74 (59) <b>Gain</b>	<b>+15</b>
I. Overall Score, Competitive Corporate Excellence	80 (67) <b>Gain</b>	<b>+13</b>

*Note:* Scores within brackets relate to situation 3 years earlier.



## REFERENCES







# Inciters of Organizational Creativity

- ▶ Mechanisms that Stimulate Organizational Creativity
- ▶ Concluding Comments







gaps and the like that can spawn innovations is delivered by creative experiments, creative surveys, and creative benchmarking. New leads can be provided by creative data mining and stakeholders councils. Finally, space for innovative organizational decision-making and initiatives can be enlarged by exnovation, or sweeping away of obstructive rules, regulations, policies, and practices. Table 9.1 lists the key values the mechanisms deliver and the principal mechanisms that deliver them to an organization aspiring to be creative.

Let us discuss each of the 16 mechanisms briefly.

**Table 9.1** Organizational Creativity Value Propositions and Main Mechanisms Delivering Them

<i>Value Proposition</i>	<i>Delivering Mechanisms</i>
1. <i>Creativity movement in the organization</i>	<i>Creative thinking network</i> <i>Creativity training</i>
2. <i>Finding in the organization movers and shakers hungry for innovation</i>	<i>Multiplication of change agents</i>
3. <i>A vision that challenges the organization to innovation</i>	<i>Creative scenario building</i> <i>Mind mapping</i>
4. <i>Breakthrough product/process innovations</i>	<i>Intrapreneurship</i> <i>Parallel groups</i>
5. <i>Breakthrough operations-related innovations</i>	<i>Creative overloading</i>
6. <i>Continuous small innovations and improvements</i>	<i>'Kaizen' systems</i>
7. <i>Vital information on strategic gaps that spurs innovations</i>	<i>Creative experiments</i> <i>Creative surveys</i> <i>Creative benchmarking</i> <i>Reverse brainstorming</i>
8. <i>High potential new leads and connections</i>	<i>Knowledge discovery</i> <i>Stakeholders' councils</i>
9. <i>Space for decision-making and initiative-taking</i>	<i>Exnovation</i>



## **1. Creative Overloading**

When a system is overloaded in certain ways, it is likely to look a lot more for innovative ways for measuring up. In the late 1970s, Ford Motor Company, US, had fallen into bad times. Its cars came to be considered unsafe; quality was suspect. Customers began to desert Ford, and the company lost US \$1.5 billion on revenues of US \$37 billion in 1980. As part of its recovery process, it developed a new car called Taurus.

It not only saved Australian \$80 millions a year, but it institutionalized a mindset that constantly looked for ways to decrease costs and enhance productivity.

client.

## **5. Creative Thinking Network**

The OZ Creative Thinking Network, started in DuPont's Industrial Fibers Division, US, is an interesting example of grass-roots creativity sponsored, not by management, but by employees.

mapping is a way of going from the big picture to concrete innovations. A mind map is a stimulating display of concepts and activities that clarifies the connections among the concepts and activities related to complex issues. The process may be triggered by a highly visual metaphor like a drawing or a verbal metaphor such as 'permeable walls' or 'boundaryless organization.' In the mind map, the ideas/activities related to the metaphor are evocatively labelled, and brief descriptions of initiatives and staff actions related to each label are generated.

Don Ambrose has provided an example of how mind mapping worked in the Rider University School of Education, US.

difference in performance or behaviour due to innovation can be attributed to the innovation. Even if there is no 'control' group (a 'control' group is not always possible, as when setting up a pilot plant), careful measurement yields valuable, reliable information. Measurements need to be taken of key variables relating to the initial and eventual state of the organizational system that is impacted by a change or innovation, to correlate the magnitude of the change/innovation with the change in performance dimensions.

Organizational experiments are creative when they are undertaken in areas in which they are not generally undertaken so that reliable information is generated for management interventions in underknown areas; they are also creative when the information they generate is utilized to brainstorm on changes/innovations, and not merely proceed/not proceed or roll out/not roll out decisions. Organizational experiments can be conducted in a whole lot of areas—before launching changes in human resource management (HRM) systems such as the performance appraisal, emoluments, and promotion and rewards systems; in financial management, computerization, MIS; in strategic and operational planning and budgeting systems; in market research, product launches, and promotion systems; in operations system such as quality management, logistics, inventory control, and maintenance systems; in internal and external communications; and so forth. Often the changes/innovations are mere borrowings from elsewhere. But borrowings seldom work because organizational cultures differ greatly, and there is no guarantee that what worked in one organization will work in another. Pilot experiments can considerably enhance the management's understanding of the suitability of innovation/change, and the circumstances in which it can become more effective.

The other aspect of creative experimentation is how the information resulting from the experiment is treated. For enhancing innovativeness, the information should be made available to the staff, not just confined to corporate dossiers. Moreover, widespread brainstorming in focus groups should be encouraged to generate exciting, innovative implications of the results.

An interesting example of an organizational experiment was the one in a post office in Shimla, a hill resort in northern India.

unionized. The place was in a bad shape, highly congested, poorly lit, badly furnished, and with no conveniences for customers. A job satisfaction survey revealed much dissatisfaction.

The experiment was initially confined to the mail delivery groups. It was decided to make each group work as a team, so that instead of different individuals specializing in the functions of mail collection, delivery, recording, etc., the tasks could be rotated among the team members. Besides, the leader of the team rotated every fortnight, so that everybody got a chance to be leader. The experiment was a success. Compared to other similar post offices in the area, the area covered per postman was nearly doubled as was the delivery load per postman. This pilot study in teamwork encouraged the postal authorities to extend teamwork in other post offices in Shimla.

## **8. Stakeholders' Councils**

Creativity and innovation are stimulated when multiple perspectives are generated. Managements often operate with single perspectives—their own. Stakeholders' councils are a device for the entry into management considerations of other voices, some radically different from the management's.

telecom major, invited consultants to find out what was right or wrong about its public image, and why the stakeholders held the image they did. This led to a number of proposals for change and innovation, especially vis-à-vis Italtel's trademark, logo, product design, and the design and décor of the company's facilities. Sears Roebuck, the US retailer embarked on a revitalization campaign in the early 1990s.



brainstorming extensively. Reverse brainstorming need not be confined only to strategies. It can be applied to any proposed change or innovation.

A variant of reverse brainstorming is devil's advocacy. A keen mind is asked to play the role of opposing any proposal that is made, say in a committee or a problem solving group. The idea is the same as that of reverse brainstorming—that of preventing too facile an acceptance, of forcing reappraisal of the best of ideas or proposals. War games are also of the same genre, for by simulating the opponent the chinks in one's armour are quickly exposed for remedial action.

## **11. Intrapreneurship**

In a turbulent, competitive, but opportunity-rich environment, the development of star potential products on a fairly constant basis is necessary. American studies suggest that only 1 in 50 new product ideas succeeds in the market.

In India, a variant is observed. In large business houses, the technically or professionally trained scions of the promoter family are encouraged to tinker with new, technologically sophisticated products, frequently products recently introduced in the West.

were trained. Several thousand innovations and improvements were suggested and implemented, contributing to the renowned administrative excellence of the Singapore government.

They were sent on a 13-week tour of the US to visit Silicon Valley and other dynamic companies plus getting coaching by an expert. Some 400 managers were provided entrepreneurial training by faculty from Babson College, US, and 250 of them were given charge of newly created SBUs.

the oil refining major, attempted such scenario building.

Several strategic initiatives reflected the mindset change. The shareholding of the British holding company was reduced to enable the company to get out of the restrictions imposed by the government on MNCs. Specific and ambitious targets were participatively fixed for sales, production, plant utilization, debt collection, inventory reduction, manpower reduction, etc., and pushed hard. The organization structure was overhauled to facilitate innovation, entrepreneurship, professional, and participative management. One whole level of management was eliminated, and SBUs were created for new, innovative ventures. Corporate planning was strengthened. Many bright young managers were identified and given challenging responsibilities. New markets were prospected; several product innovations were made as well as new applications of existing products. The company entered into several contracts with other companies to manage their gas plants and market their products. The company also entered into joint ventures with government-owned entities. Exports were stepped up and addition was made to the plant capacity. R&D was stepped up. Ancillaries were developed; marketing was professionalized; and so forth. The company reversed its declining performance dramatically. Profits quadrupled between 1979 and 1982.

What kind of creativity training can catalyse such corporate wonders? The focus should be not just on divergent thinking abilities but also on blocks to creative thinking, such as the fears of failure, ambiguity, social disapproval, and interpersonal rejection. The training should help the participants better understand those motives and environments that facilitate creativity as well as those that impede it. Training should stress creativity in the organizational context, and provide insights to the participants in those organizational designs that promote creativity and innovation and those that act as barriers. Techniques of creative problem solving such as brainstorming, checklist of questions, attributes changing, and synectics should be taught. Various practices described in this chapter that enhance the organization's capacity for creativity and innovation should be discussed. It should be emphasized that management creativity requires that novel ideas are made to work successfully, so that effective implementation is as vital as clever, new ideas.

Some creativity training programmes stress primarily training in structured, step-by-step creative problem solving. One of these, the Future Problem Solving (FIS) is a six-step process.

problem statement(s). The trainees then agree on evaluation criteria and apply them to each solution. Finally, the trainees get to identify the 'best' solution.

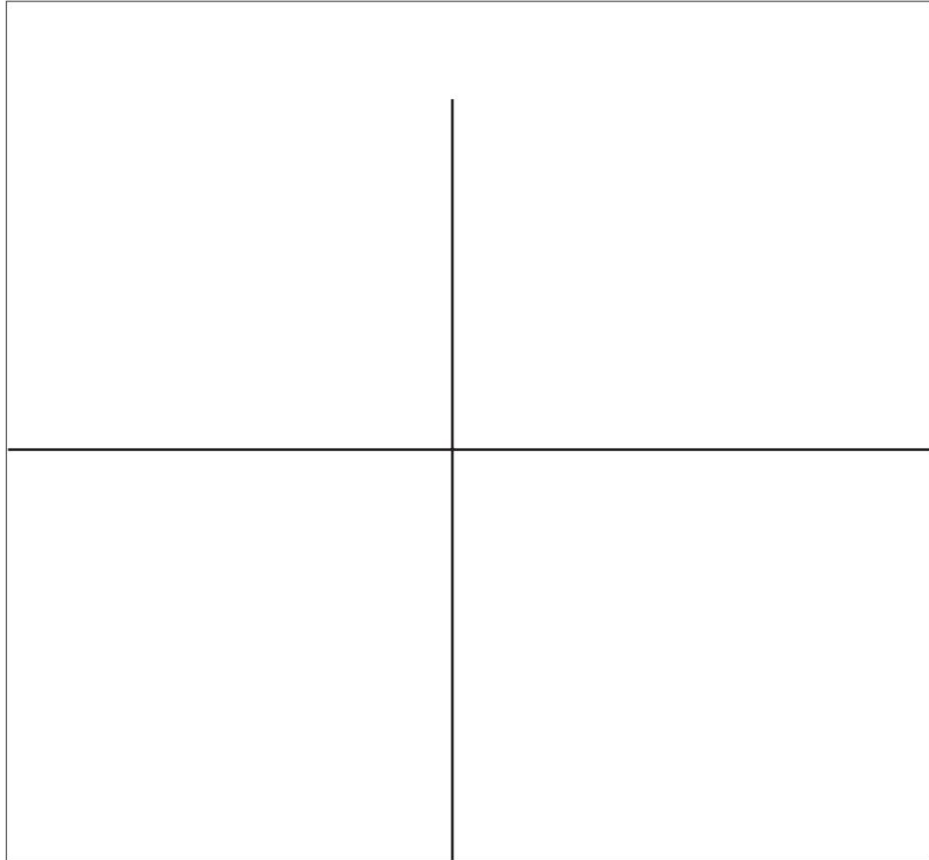
## **16. Exnovation**

Yesterday's innovation may become today's albatross.

book of rules in the company parking lot! It was replaced by an 80-page book.

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*These mechanisms cannot be blindly transplanted into an organization. They need to be adapted to each organizational situation, and used discriminatingly. For instance, setting up stakeholders' councils would depend upon which stakeholders are seen as critical for the organization and this criticality would vary from organization to organization. Parallel groups or teams is again a mechanism that has to be used discriminatingly. Creative overloading may work in some activities but not in others. For example, one cannot push overloading too far in capacity utilization—there could be all kinds of systems breakdowns at 150% capacity utilization.*

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## REFERENCES





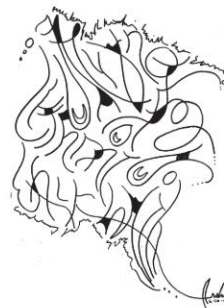




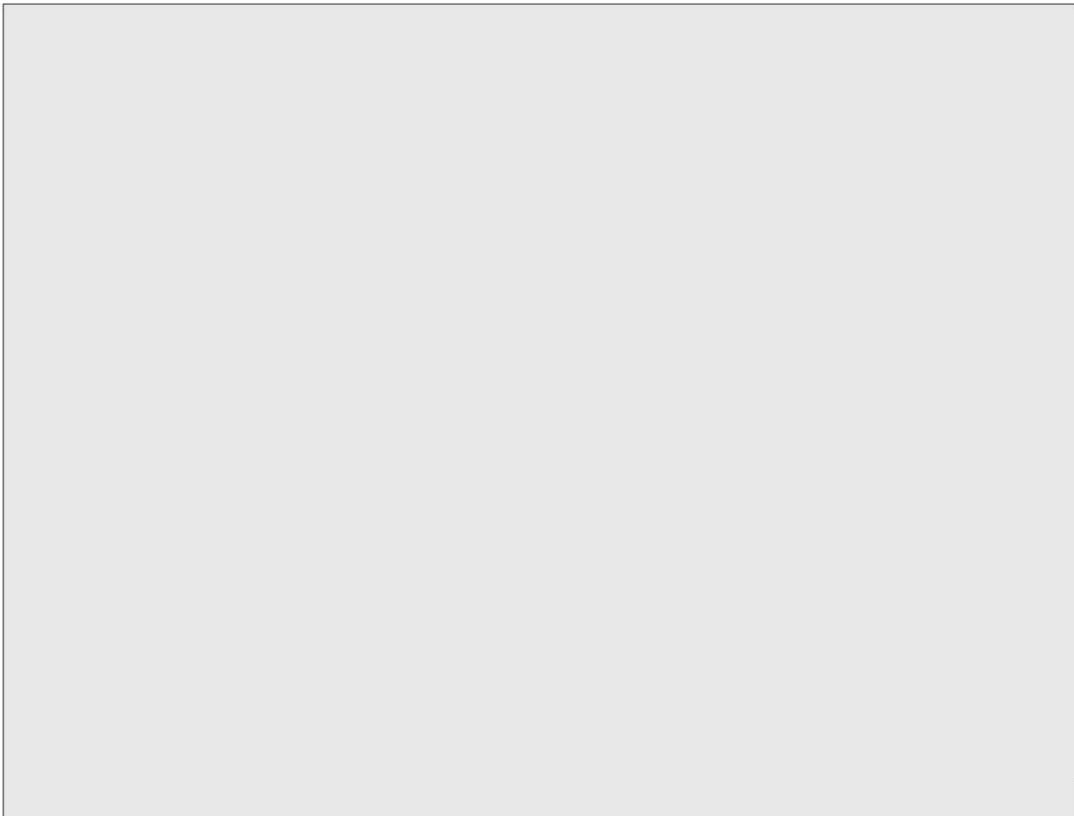


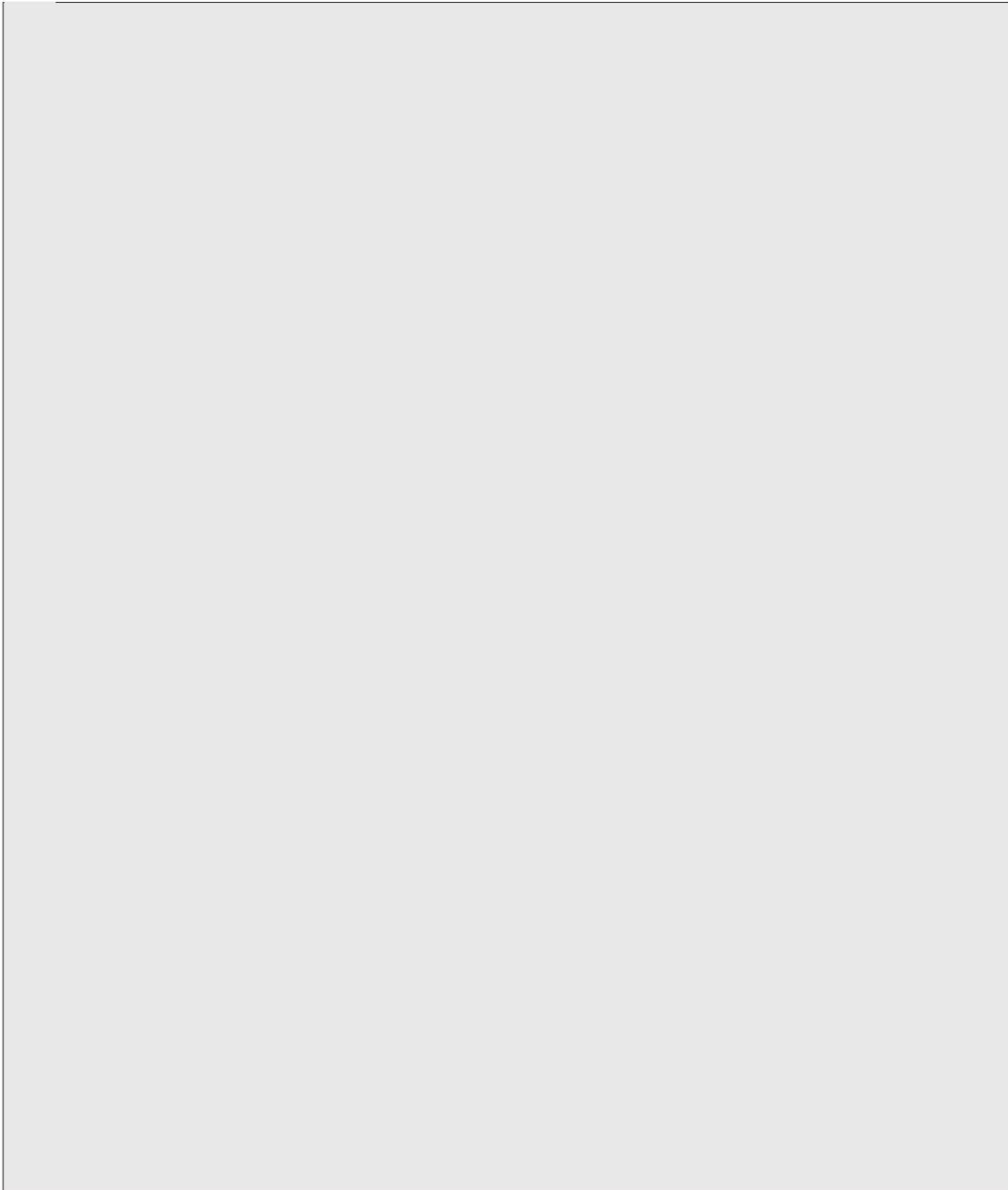
## Processes of Creative Regeneration

- ▶ Regeneration of Harley Davidson
- ▶ Creative Diagnosing
- ▶ Creative Mobilization of External and Internal Stakeholders for Transformation
- ▶ Creatively Building an Internal Consensus for Transformation
- ▶ Creative Mindset Change
- ▶ Creative Implementation of Transformational Strategy
- ▶ Concluding Comments









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How do we make what Don Ambrose called impaired bureaucracies

lower than Harley's. Market surveys showed much disenchantment of Harley owners over shoddy product quality, but they also revealed high brand loyalty.

The management co-opted Harley bike owners into the revitalization. Beals and other executives personally went to motorcycle rallies and met owners of Harley bikes to listen to their complaints and suggestions. They learnt, for example, that the owners looked upon their Harleys as extensions of themselves, and indeed wanted their bikes to be unique expressions of their personalities. The management also co-opted the unions into the rejuvenation. They got them to agree to let the workers perform multiple tasks, including some performed previously by specialists, such as oiling and calibrating the machines they operated, and quality control inspections. The management also co-opted the US government, and got it to provide duty protection from imports. The US Congress raised tariffs on Japanese bike imports from 4% to 45%!

The management mobilized the internal stakeholders for change. It made an impassioned plea to the workers to make the eagle, Harley's trademark, fly high again. Communications were stepped up to mobilize the staff. Workers' participation in decision-making was increased. So were various benefits to the employees. Each worker was given multi-skilling training to upgrade various competencies, including statistical process control, continuous correction, and other Japanese practices. The jobs of production workers were also made more interesting by letting them perform quality control. Managers were empowered through greater delegation of authority. Towards such empowerment, each plant was turned into a profit centre, and considerable operating autonomy was granted to the plant's management.

The top managers were also the owners, and they worked together as a cohesive team. The emphasis was on participative, consensual decision-making. The imperative of making the Harley eagle fly proudly again was another cementing bond. Beals and his team also attempted a major mindset change—from bureaucratic practices and individualism to what William Ouchi has called a 'clan' culture of togetherness and cooperation.

jewellery, clothing, to leather jackets; and diversification into recreational and commercial vehicles. Various improvements were made in the bikes such as mountings on rubber to reduce vibration and mounting of various gadgets like intercoms on riders' helmets. Profitability and sales improved sharply, from a loss of US \$25 million on sales of US \$210 million in 1982 to a profit of US \$ 38 million on sales of US \$865 million in 1990.

## **CREATIVE DIAGNOSING**

A credible diagnosis that stakeholders can believe in is an important first step in 'unfreezing' the organization for transformation. The usual way is to entrust diagnosis to an external consultant or to an internal diagnostic team. Sometimes even this is skipped, and the CEO talks around and pores over results and documents and comes to conclusions about what the organization's shortcomings are and what needs to be done. A diagnosis is creative when it is not only credible to the internal and external stakeholders but is also done in an innovative manner, and/or the diagnostic information is utilized in innovative ways. Let us examine the diagnostic effort at three ailing organizations that laid the foundations of their respective transformation strategies.

### **1. General Motors**

The GM leadership's diagnostic effort in the early 1980s had several innovative features.

consultants, and a team that involved an important stakeholder—the union—led to a widespread realization that GM needed to change—and in radical ways—to remain afloat in a highly competitive world.

## **2. Sears Roebuck**

Sears Roebuck, the giant US merchandiser, also went about diagnosis in the 1990s in innovative ways.



### **3. Enfield India**

GM and Sears are huge corporations. Even relatively small organizations can go about a credible diagnosis in innovative ways. Enfield India, a producer of motorcycles, got in a management consultant to perform an audit of the company's management itself.

guaranteed lifetime employment to its workers who were union members and no cuts in their wages in return for a dual wage structure in which new pilots, flight crew, and mechanics could be hired at around 50% of existing pay scales.

Continental Airlines, US, too, evolved an innovative communications system in its turn-around attempt, also in the 1990s.

## **CREATIVE MINDSET CHANGE**

Mindset change or culture change is frequently essential in a conservative/traditional organization trying to become innovative. This is a difficult task. Some interesting ways have been attempted. In the early 1980s, in the giant General Motors Corporation, US, Jack Smith, CEO, transferred 7000 of GM's data processing personnel to the GM subsidiary EDS to absorb the latter's entrepreneurial culture.

In the 1980s, the Lucas management realized that it was in a pretty bad shape vis-à-vis its competitors.

of the customers. These steps led to a substantially better appreciation of the needs of the customers, better communications with the customers, and a stronger customer service orientation.

Several steps were taken to increase managerial accountability. The autonomy of the SBUs was increased and management functions were professionalized further by recruitment and training. A quarterly system of performance reviews was set up. Both the performance review and the setting of targets were done participatively, as was the taking of policy decisions. At the plant level, targets and achievements were periodically displayed, both to keep employees informed and to urge higher performance.

A strong exports drive was launched, in part by marketing the company's products to its sister concerns in the global Clariant family. Market development activity was stepped up and in 1997–98 alone 30 new products were introduced. Product mix was changed by exiting from high volume/low margin commodity markets; there was stronger thrust on speciality chemicals, fashion-related chemicals, and eco-friendly products. As a result of an imaginative, multi-dimensional, and participative implementation of Clariant's strategic vision, the company increased its sales by over 60% between 1995 and 1998 and more than doubled its profits.

## CONCLUDING COMMENTS

*Creative regeneration requires a transformational leadership, initially at the apex levels, and increasingly also at lower levels. Transformational leadership involves the articulation of an inspiring but credible vision, empowerment of stakeholders, and enabling them to contribute to their full potential to the entity.*

versus 29% on attempts at greater cohesion for implementing regeneration, and 143% versus 52% on restructuring and staff empowerment. The creative turnarounds were not softy—they scored 133% versus 73% on asset-cost surgery, including downsizing. The creative turnarounds were also far more innovative in the processes of regeneration they employed. These differences meant far more revitalization, transformation, organization-wide learning, and widespread creativity in the creative turnarounds. Their score for actions for operating excellence was 150% versus 45% for the non-creative turnarounds. The performance consequences were that post-turnaround, the creative organizations increased their sales and profits 50% faster than the non-creative turnarounds.

In an earlier chapter, a provocative question was posed: Can organizations display sustained creativity? The answer is yes, indeed, provided they work at their design so that continuous creativity and innovation are facilitated; employ many of the mechanisms and tools that instigate creativity; and keep themselves youthful through the processes sketched out in this chapter.

In the next chapter, we parachute into particular innovations and how they can be managed effectively.

**? QUIZ**

- 1 Can the processes of creative regeneration described in this chapter be applied to relatively small companies, say comprising 100 employees?

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- 2 Can these processes be applied to regenerate bureaucratic governmental departments?

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- 3 What is the advantage in innovative, as opposed to standardized, processes of regenerating organizations?

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## REFERENCES

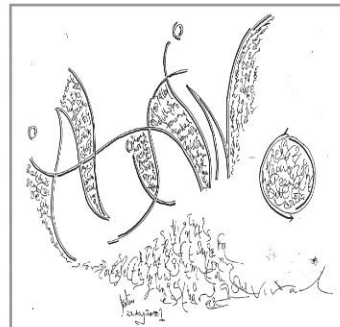






# The Management of Innovation

- Nature of Innovation
- Technological Innovations and their Management
- Inter-organizational and Network Innovations
- Training to Invent
- Management Innovations
- Agents of Innovation
- Skills for Sponsoring Innovations







have even a wider gamut. They range from innovations in missions, styles of management, growth strategies, management systems, and organizational structures, to office décor and flexitime.

Organizational innovations are not cheap. They require much human and material resources. The US is known to be an innovative society. But it is worth remembering the enormous costs of this. The US spends over \$250 billion on R&D. Some of the technologically dynamic US corporations spend more on research and development than the total sales of India's largest private sector companies. Costly though innovation is, control over its cost, and indeed, the estimation of its benefits, is often quite crude in the very nature of things. Too tight a control may destroy creativity; too lax a control can lead to runaway costs. An effective strategy may be to keep those involved in an innovation informed of organizational goals and constraints, and a periodic, participative assessment of the innovation's costs and benefits.

The management of innovation is not merely an economic process, it is also a political process. Innovation in an organization implies change in the status quo. It implies that some people who have a great stake in the status quo may be hurt, while those having a stake in the innovation may benefit. This political nature of innovations implies that those entrusted with an innovation must have the skills of influencing others. They must build support for the innovation. Without such support, however rational the innovation, it has a poor chance of success. How does one build such support? One strategy is to identify those that will benefit by the innovation, and rope them in. Those that do not stand to gain from it can be persuaded by appeal to their organizational patriotism. Those that expect to lose can be bought off by compromises, flattery, threats, or quid pro quo à la Kautilya. Securing powerful support is indispensable in implementing innovations in conservative, change resisting organizational cultures. Timing is also important. Crises are good times for introducing radical innovations, for there is, at these times, greater willingness on the part of both management and staff to accept radical innovations.

relations practices, that is, the way people were hired, trained, and rewarded, the strategic role played by the HR department, and the behaviour of members of the department.



collaborative relations can increase the flow of innovations—see the box on *Communications and Innovations*.

### **Communications and Innovations**

Research suggests that R&D performance and organizational innovation in general tend to be associated with higher informational and communications intensity, and inter-departmental informational and communications flows. The more complex the problem entrusted to a team, the greater the need for face-to-face communications within the team as well as with people outside the team with the needed information, expertise, or authority.



Innovation has two distinct phases. The first phase involves the design of the innovation; the second involves its implementation. The design phase is marked by much divergent thinking and creativity, brainstorming, search for alternatives, and so forth. The management of the design phase needs to be marked by great administrative flexibility, authority exercised by the expert in a given situation, unconstrained communications, sharing of information, much discussion, and so forth.

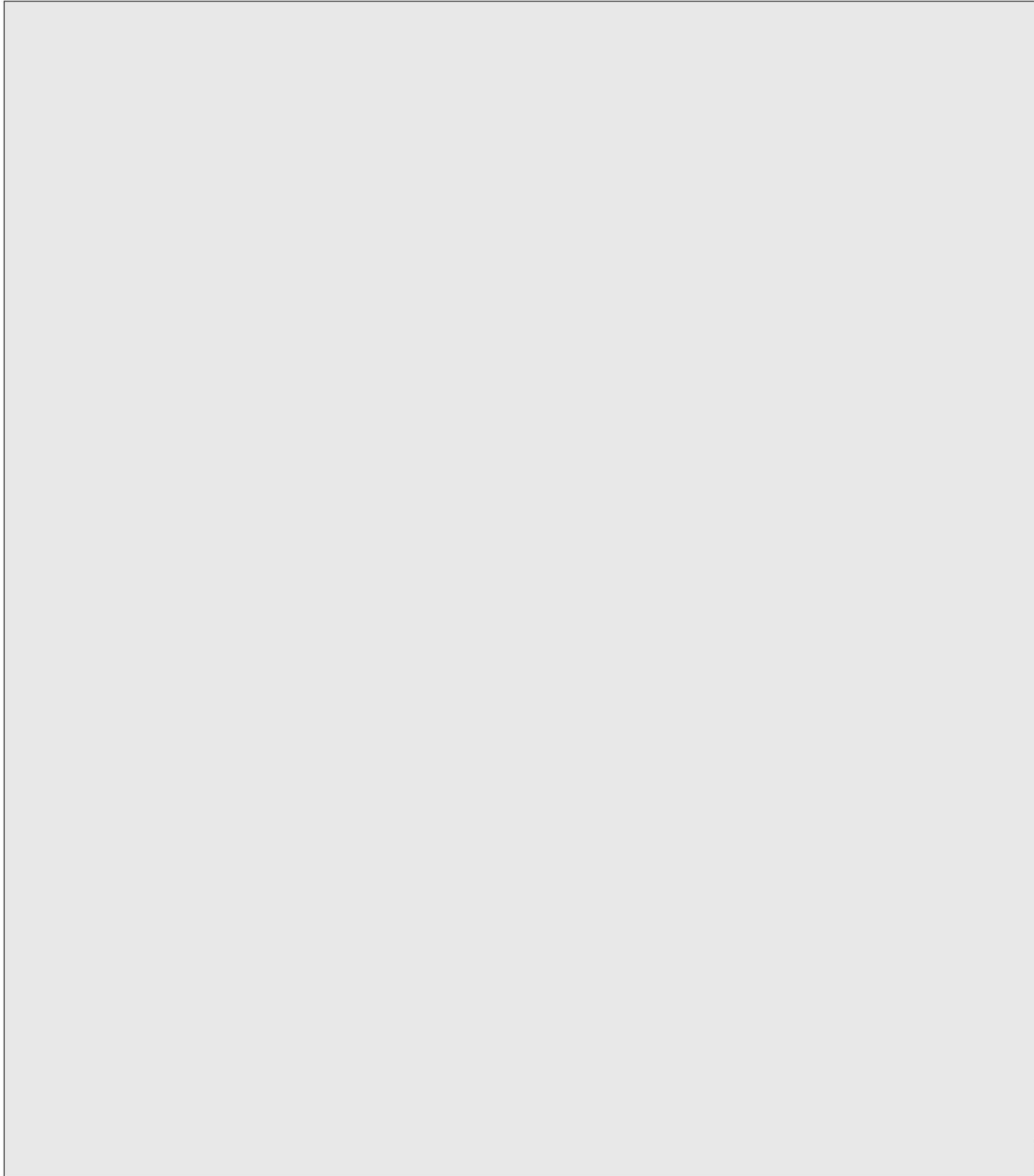
The second phase of innovation is implementation. This requires a very different mode of management. The need is not so much for divergent, creative thinking as for putting the chosen innovation to work. Much planning needs to be done, careful coordination and control and evaluation of progress.

organic, flexible mode for designing it—and a professional, system mode for implementing it.

## **TECHNOLOGICAL INNOVATIONS AND THEIR MANAGEMENT**

Technological innovations are those innovations that result in changes in the technology for producing goods or services (process innovations) or in the outputs themselves (product innovations). A product innovation in one industry or sector could become a process innovation in another industry or sector. For example, innovations in the computer industry can make possible greater automation in the petrochemicals industry, airlines, railways, etc. Product and process innovations have played a major role in economic development. According to one study, around 40% of the improvement in productivity in the West is attributable to technological innovations.

be better managed; innovations need to be better managed; and innovations need to be better targeted—see the box on *3 M's Ways of Managing Technological Innovations*.

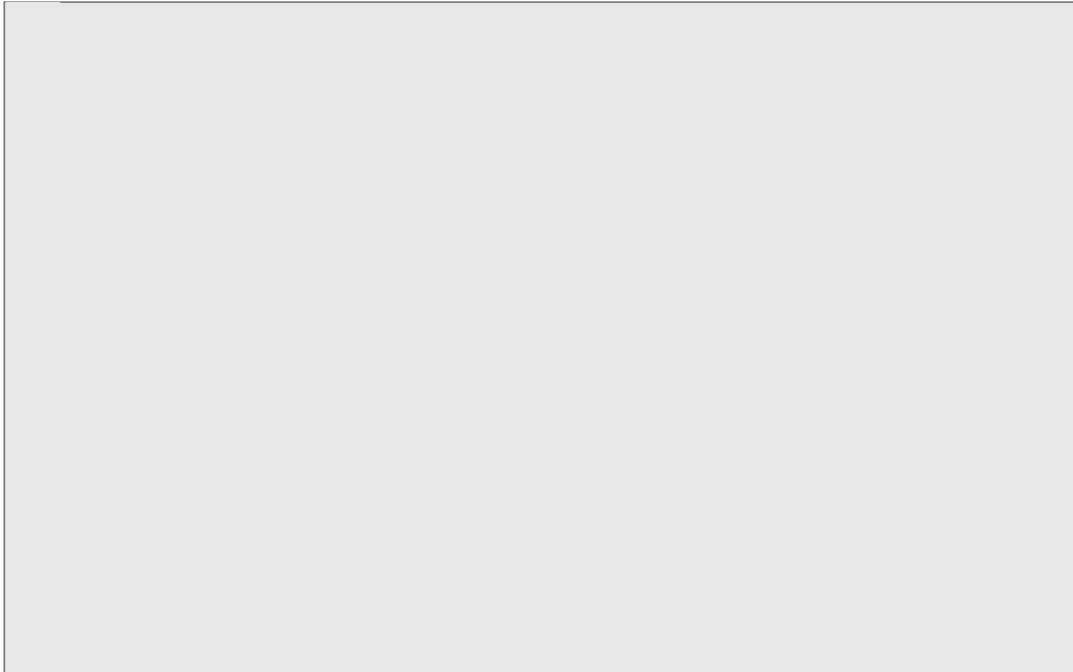




scientist anywhere in the organization for solving problems or for seeking advice or help.

4. *Product innovation pressure* 3 M had a policy of requiring that a certain percentage, 25% to 30%, of its annual sales must come from products innovated during the previous four or five years.
5. *Functional interactivity* 3 M encouraged a continuous exchange of ideas between people in sales, manufacturing and research. Researchers were encouraged to visit the plants of customers.
6. *Individualised innovation* Every researcher was enabled to spend up to 15% of his/her time on doing research of personal interest. Quite a few innovations—such as Post It—came out of such hobby research. To promote technological entrepreneurship, ‘bootlegging’, that is, persisting with a disapproved project, was condoned. Well-intentioned failures were also condoned. Up to \$ 50000 in seed money was freely provided to individuals seeking to do research on promising ideas.
7. *Support for currently impractical projects* Management supported even those innovation projects that currently had no significant market potential. 3 M had learnt over the years that often products and technologies, currently seen as unprofitable, could have unforeseen profitable applications later.
8. *Recognition of innovative excellence* Entrepreneurs could grow in the organization through a separate promotion track, that is, without getting into the managerial hierarchy rat race. An exclusive club called the Carlton Society was formed to honour 3 M’s foremost scientists with membership. The Golden Step Award Program honoured outstanding team innovations. The Circle of Technical Excellence was set up to recognize high achievers through a peer nomination process.
9. *Cross-functional teams* As competition increased, it became imperative to reduce product development lead times. Action teams were set up consisting of people in technology, marketing and production to develop and deliver new products speedily.
10. *Selectivity in innovation launches* With increase in competitive pressures it also increasingly became necessary to become selective in launching high stake new product/technology development projects. A Corporate Technical Planning and Coordination group was set up to subject proposed projects to technical audit. It pooled decades of past experience with projects to develop models to predict the





When product innovations are tailor-made to clearly identified gaps, needs, or to identified inadequacies of the customer, the chances of success of innovations that respond to these are likely to brighten. This customisation requires close interaction with the customer. Interaction can take the form of joint prototype testing, product specification, product development, product evaluation, marketing, etc. In the British medical equipment industry, this sort of continuous interaction between the producer and the user led to a high success rate. Out of 34 product innovations that were studied, 22 or 65% were successfully marketed.

Personal contacts, education, and experience constitute the largest percentage of information sources used in originating innovative ideas in the organisation.

for the innovation, organizing for the innovation, approval of the innovation, internal opposition to the innovation, and internal commitment building for the innovation. Sinha concluded that the overall technical innovation process is influenced by five major factors: (1) the situation (crisis, problem, or opportunity); (2) relatedness or distance of the innovation from existing know-how and operations; (3) the nature of the organisation (large or small, complex or non-complex); (4) top management support for the innovation idea; (5) and whether or not research and development is institutionalised in the organization. The management of an innovation would depend very much on the particular configuration of these factors that is present. A good deal of flexibility and political skill, besides technical competence, would be needed in anyone sponsoring a technical innovation.

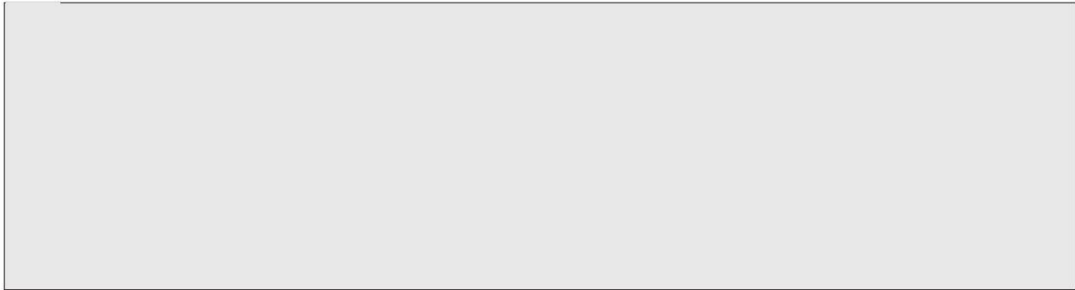
Some broad guidelines for effective management of technological innovations are provided by Thomas Moss.



Such inter-organizational innovations can gobble up large resources, and are difficult to monitor—See the box on *Indulgence and Axe in Joint Venture Innovations*.

### **Indulgence and Axe in Joint Venture Innovations**

Andrew Van de Ven and Douglas Polley have documented an interesting study of how an innovation called therapeutic apheresis programme (TAP) fared.



Equally interesting are what may be called network innovations. These networks may include rivals. More likely, they include vendors and customers. Johannes Pennings and Farid Harianto have provided an interesting example of how the innovation of home banking by some banks led to network innovation.

grown-ups to become inventors.

Einstein's view that in science the identification of a problem is more important than its solution.

environmental changes, better staff motivation, greater accountability, and better mission accomplishment.

of the 20 companies in which it was introduced was MBO institutionalised; in the rest it was more or less abandoned.

words, in large, conservative systems, pilot testing innovations before their diffusion makes good sense.

## **AGENTS OF INNOVATION**

In many systems such as the family, group, community, and formal organization, we come across a few who create space for their innovative ideas while many remain content to function as cogs in a wheel. Consider a couple of case histories.

1. **Arthur Drumm** (a pseudonym) wanted to develop a new measuring instrument that could sharply improve the quality of his company's products.

Dr. Rao started inland fishing, prawn culture, and salt production. In these ventures, Dr. Rao blended traditional know-how and practices with such technologies as windmills and photovoltaic batteries. Thrift unions were started, run by women to supplement family income, and some of these challenged local malpractices. With Dr. Rao's help, some of his younger colleagues staked out their own areas of social innovation and change. Notice that Dr. Rao chose to develop an area that he was intimately familiar with—his own birthplace. He started in a small way, learnt a lot from his experiences, and then rapidly diversified his activities. He imaginatively blended sophisticated expertise with native wisdom and know-how. He got governmental and non-governmental agencies to support him. He spawned other change agents.

Given the nature of organizational or social innovation, its successful sponsor must have certain types of skills. After all, innovation is an opportunity that needs to be spotted. It is risky; there is much uncertainty associated with it. It must be introduced in an organizational or a social system in which some may be threatened by it. Since it may take large financial and human resources to adopt an innovation, its implementation must be efficient. Teams are often required to implement even those innovations that are conceived by an individual, and so on. The innovation sponsor must have the skills to be able to deal effectively with these fundamentals of innovation management.

## **SKILLS FOR SPONSORING INNOVATIONS**

What sort of people are innovative change agents? Research on this point is modest. Rosabeth Moss Kanter did a study of the achievements of 165 middle-level managers in five large American corporations. Of these, 99 could be categorized as innovative efforts.



persistent. Those interested in assessing their change agent and innovation sponsoring skills may like to assess themselves through the instrument given in Annexure 3.1 in Chapter 3.

Two skills of the person who wishes to introduce innovations in a system seem to be particularly crucial. The first is the ability to take calculated risks; the other is the ability to spot opportunities. Both these can be broken down further into mechanisms and both can be strengthened if we understand these mechanisms better.

Risk taking is not being foolhardy. Jumping from the 10th storey is not risk taking, nor is climbing Everest in sandals; death or failure is certain. Risk taking involves taking calculated chances in which there is a reasonable probability—not certainty—of success. It can be broken down into the following skills.

1. *Ability to identify what the potential pay off from an action or venture is*—This means a thorough understanding of what the venture involves, its various costs and benefits, etc.
2. *Ability to identify the significant risks in the venture*—Are they associated with acquiring inputs (land, plant, materials, cash)? With the technology (too unfamiliar)? With the market (possible entry of competitors, possible shift in preferences of customers)? With government policies and incentives and disincentives? The better informed one is about what the major risks are, the more competent will be the risk taking. It pays, therefore, to contact knowledgeable persons, read the right trade publications, discuss risks with experts, etc.
3. *How the payoff from a venture or its cost or the risks associated with the venture can be changed by one's actions*—Suppose the venture involves the import of expensive machinery. Capital costs could, however, be cut down by more effective bargaining with the vendor, or by finding cheaper domestic substitutes, or by subcontracting certain stages in the manufacturing process. Similarly, market risks can be reduced by negotiating a long-term supply agreement with a potential major customer. Brainstorming can be extremely valuable in generating ideas for increasing the payoff from a venture and decreasing its risks.
4. *Risk preference*—Suppose there are two alternative ventures. In one, there is 100% probability that you will get Rs. 100000; in the other, only a 50% probability of getting Rs. 200000. Which one will you pick? Their expected values (payoff times probability of earning it) are the same. The risk taker will take the second option; the pensioner, the first. The risk taker sacrifices some certainty of return for a relatively larger *potential* return—not only because risk taking is fun but also because thereby he may be able to achieve a change in his or her

status (say, from middle manager to senior manager). This ability to visualize a possible transformation in one's financial, social, or other standing or in the quality of one's life by taking a risky alternative is the one that separates the men from the boys. The risk preference is tied up with one's vision of personal growth. Awareness of how some people who took calculated risks and succeeded should increase one's risk preference.

Ability to spot opportunities, too, can be developed. For it, too, can be broken down into the following.

1. *Knowledge of high opportunity industries, markets, technologies, regions, etc.*—If one does an ABC analysis of any of these, he will find that some of them are highly dynamic, and therefore full of opportunities (at present, growth industries such as electronics, space, plastics, telecom, IT, etc.). These are the **A** industries, markets, etc. Some are more mature, stabilized industries with lower rates of innovation and change—the **B** category. Some are stagnating or in their decline phase—the **C** category. Seeking to be more informed about the **A** category industries, markets, technologies, and regions should provide one with many potential opportunities. This means talking to knowledgeable persons in industry associations, financial institutions, the government, the market-place, the stock market, as well as scanning trade and industry periodicals.
2. *The ability to spot opportunities in social adversity* —The Bhopal disaster was a vast calamity. But it is not an isolated occurrence. As developing societies industrialize, with meagre managerial skills and poor governmental surveillance systems but with technological self-reliance as a major social goal, small or big Bhopals will occur. Many may remain content by wringing their hands in despair. It is the change agent who can see various opportunities—for better training in safety management, for early warning systems, for insurance, for quick rehabilitation or retraining programmes, for legal aid to the affected, for better governmental surveillance systems, for easier and cheaper plant relocations away from densely populated areas, for less risky plants, etc. At the heart of this sort of opportunity spotting is the ability to identify bottlenecks, grasp early the discordant elements in them, visualize their implications, and identify innovation opportunities in unmet needs before others do. First hand information, interaction with affected persons, officials, etc., and with experts should sharpen the ability to spot opportunities in adversities, calamities, crises, constraints, and exigencies.

**? QUIZ**

- 1 Would there be a difference in the way the CEO introduces an innovation in an organization and the way a middle-level manager introduces it?

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- 2 Should all innovative project proposals that fail to meet the organization's cut off internal rate of return be eliminated?

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- 3 Can the ability to take risks be taught?

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- A. Drucker has indicated several possible sources of opportunities for innovation.

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[illegible]



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