



**E-CONTENT-SERIES ON ENTREPRENEURSHIP AND MSMEs**  
by  
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## **Innovation, Creativity & Entrepreneurship**

**Innovation, Creativity: Meaning & Concept**

**Innovation, Creativity & Entrepreneurship: The Linkage**

**Process of Creativity**

**Creative thinking & Lateral thinking**

**Views of De bono, Pradeep N Khandwal and others on creativity**

### **Creative Ideas Pay: The FedEx Story**

The idea for FedEx- The worlds largest express transportation company germinated in a term paper submitted by a Yale University Graduate – Frederick W. Smith. He discussed that the existing distribution system was inadequate and later in 1971 when bought a firm Arkansas Aviation Sales he found that there was tremendous difficulty getting packaged delivery within one or two days even of time sensitive shipments like medicines, computers, electronics. Hence to overcome the problems of ineffective distribution system he re-conceptualized the idea of his term paper and on the night of April 17, 1973, with the launch of 14 aircrafts FedEx was able to deliver 186 packages in 25 US cities!

### **Innovation**

Business ventures have some common factors amongst themselves. But they need to have some unique selling proposition (USP) to survive. It is for arming the business with a USP that the organizations need to innovate. Innovation helps a business house to survive



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when the winds of change hit the market, in fact innovation fuels in the winds of change. Innovation is not just creation of new ideas/ thoughts but it is also about translating them into products/ services. Hence Innovation can be defined as the successful exploitation of new ideas – incorporating new technology, design & best practice is the key business process that enables the businesses to compete effectively.

Innovation is something more than idea generation it is because idea has little significance till it is converted into some useful product/ services. Innovation is the process of conceptualizing an idea and then transforming that idea into a product/ service. Usually innovations are being made with a desire to overcome a need or a problem. Innovation can be at the spark of light and can also take generation of experimentations. Innovation usually make the life more comfortable for a common man – but back operation in transforming ideas into products/ services at times even take lifetime of many. The characteristics of Innovations are

1. Innovations are the harbingers of change
2. Innovations can take place at the spark of light or can take generation of experiments
3. Innovations can be both revolutionary as well as extension to the existing products/ services.
4. Innovations provide a USP to a business.
5. Innovations are action oriented i.e. active and searching new ideas.
6. Innovations help in making the product, service or process simple and understandable.
7. Innovations help in making the product, service or process customer based.
8. Innovation is all about trying, testing and revising.

Thus innovation refers to a process of creation/ value addition of a product/ service/ process that can solve an existing problems or tap an opportunities.



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### Creativity

*“Being different for the sake of being different may attract attention but that is not sufficient value. True creativity must deliver real value.”*

*Edward de Bono*

Creativity can be defined as the process of developing an original product, service or idea that makes a socially recognized contribution. Moreover novel combination of old ideas can also be considered as creativity. Hence Creativity is the ability to bring something new into existence from either an existing or new idea. A creative person conceives an idea, which is new. It is immaterial whether he takes any action. Hence the emphasis is on the ability and not the activity of bringing anything new. Entrepreneurs need new ideas for setting up / running new business ventures. An entrepreneur who is creative and brings her / his ideas into reality turns out to be successful in business. Creativity has also become important in the present highly competitive market where the business needs to differentiate itself from others to survive.

The next question that comes to mind is – Are creative persons born or made? Some of the psychologists were of the view that creativity is a function of the brain's right hemisphere and creative persons are born and not made. But various scientific researches have proven that human brain can be conditioned under stimulating environment to become creative. It is for these reasons that organizations & consultancies organize training sessions on creativity.

### Sources of Innovative & Creative Ideas

The Various Sources of idea generation are:

- Present & potential Consumers
- Existing Companies



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- Raw material Providers
- Distributors & Retailers
- Research & Development
- Existing Employees

There is a great misunderstanding of considering innovation/ creativity as synonymous to invention. But this is not true; innovation is in fact utilization of the inventions that lead to increase in the overall growth & profitability of the organization. Apart from misunderstanding innovation to invention there are many more myths in relation to innovation; they have been discussed below along with reasons as to why these are myths and not facts:

**MYTH 1:** Innovation is planned and predictable: This myth is based on the old concept that innovation should be left to the research and development department under a planned format. In truth, innovation is unpredictable and may be introduced by anyone.

**MYTH 2:** Technical specifications should be thoroughly prepared: this is a myth, as thorough preparation often takes too long. Quite often it is more important to use a try/test/revise approach than spend time in preparation and planning.

**MYTH 3:** Creativity relies on dreams and ideas: Even this is not true, the fact is that accomplished innovators are very practical people; they create (and not dream) useful products from the innovations they make.

**MYTH 4:** Technology is the only driving force of innovation and success: This again is a myth. Technology is certainly one of the sources for innovation, but it is not the only one. Moreover, the customers/ market/



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changing demands are the driving forces behind any innovation. In fact market-driven or the customer based innovations have the highest probability of success.

### **Creativity, Innovation & Entrepreneurship: The Linkage**

Innovation is different from Invention. An Invention is discovery of new methods and new materials whereas Innovation is utilization of inventions to produce new and better quality of products that give greater satisfaction to the consumer and higher profits to the entrepreneur. An inventor gives idea and an innovator implements the idea for economic gain. Some individuals can be both inventor & innovator. The innovator (entrepreneur) commercially exploits the invention produced by him or by any other person. Similarly entrepreneur also exploits even creative ideas for commercial gains .

The importance of creativity & Innovation has swollen up with the rising competition amongst corporates. Successful entrepreneurs are realizing that ‘Creativity, Innovation and even incremental value additions’ are imperative ingredients to survive the ever rising competition. As discussed in Chapter I, Schumpeter has identified the importance of innovation in his definition on ‘entrepreneurship’.

Schumpeter (1934) listed five different kinds of innovations or ways to act as an entrepreneur:

1. The introduction of a new good or quality of a good.
2. The introduction of a new method of production.
3. The opening of a new market.
4. The utilization of some new sources of supply for raw materials or intermediate goods.
5. The carrying out of some new organizational form of the industry.

*For Schumpeter (1934) the ability to identify new opportunities in the market is a central entrepreneurial activity, which creates disequilibrium in the economy.*



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Whatever may be the kind of innovation (as discussed above) or whatever might be the degree of innovation (remember de bono pointed out that even incremental changes can amount to innovations.) the Keyword is INNOVATION to survive in the business.

Irrespective of sector, creativity & innovation have become imperative for thriving in business. Organizations recognize the fact that to maintain competitive advantage they must continually seek to identify, develop and make best use of all available resources. In response to the rapid rate of change in competition and the pressures of technological advances, corporate executives are unanimous in their stated desire to make their employees and their organizations more "entrepreneurial". The traditional view has been that this is accomplished through individual creative people and, more recently, teams of individual creative people. Consequently, "entrepreneurial" organization has been seen less as an organization in which innovativeness is an embedded part of the organization's process and structure, and more the "place" within which (a) innovations have been developed, (b) innovative people happen to reside and work, and (c) whose controls are capable of being overcome so that top management can reluctantly agree to accept the innovation. Corporate executives then seek to find means by which to unleash the creative talents of their people and to lower the built-in barriers to new ideas that could bubble up from the depths of the organization.

On the short list of approaches that encourage the creativity that leads to profitable innovations is to inundate marketing people and scientists (or other "creatively-inclined" people such as knowledge workers) with exhortations to "think outside the box", to think "sidewise" about problems, and to "network" with others with different perspectives. Another approach is to offer rewards and recognition's to successful innovators. Too, supervisors and other gatekeepers are exhorted to be receptive to new ideas, to wink at and ignore time taken from assigned projects and applied to pet (although unauthorized) ideas. By-passes to bureaucratic procedures similarly are created for new ideas. And formal procedures may be established by which to winnow out and bless for further development those project proposals which seem most likely to fit the needs for new



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product development schedules or have the potential to provide useful new directions for research or development. There is a wide range of corporate approaches to overcoming built-in barriers to creativity and innovation, and the approaches range widely in how well they work.

A great deal of importance and attention has been given, appropriately enough, to the need to enhance innovation in organizations. Making a corporation more creative, more innovative, more *entrepreneurial* has gone from being a nicety or a slogan; it is now a minimum requirement in many industries simply to stay in the competitive game. Since it has become a challenge taken more seriously than ever before, the question of how to do it has become one asked in deadly earnestness. And, in fact, the notion of introducing entrepreneurship within the established organization is even more complicated than it might seem.

### **Want A challenge on Creativity: Check this Out**

We all know that Edison was the inventor of the electric light bulb. But wait this is not true - Thomas Edison was America's most productive inventor in the 19th century and remains so into the 21st. His 1,093 patents are by no means the proper measure of the man and no one till now has been able to break this record. Would you dare to Bet!

### **Process Of Creativity**

Brilliant ideas do not come out of the blue; they evolve through a creative process wherein ideas are germinated, developed and matured by an imaginative person. The process of creativity involves six stages:

### **Stage I: Task Presentation**

The first stage to the process of creativity is idea germination. The idea germinates from personal interest/ inclination or an existing problem or



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future opportunity. The important thing at this stage is how far is the idea motivating enough to capture the attention of the entrepreneur. But a lot of internal motivation is required to learn about a problem/ or to tap an opportunity and if the perceived problem is motivating enough to capture the individual's attention, one moves to the Stage II.

### **Stage II: Preparation**

Preparation is the plan for a conscious research of a solution to the problem/ opportunity, it involves seeking information about the problem and how others have tried to solve it. This stage builds up and activates information that is relevant to the problem. At this stage a market research is often conducted for new products and services. This stage does not generally deliver any results. However, the effort of gathering information and knowledge is useful for the final solution. Successful gathering of information at this stage motivates entrepreneur to move to Stage III.

### **Stage III: Incubation**

In this stage the knowledge and information is assimilated. It is a stage of subconscious assimilation of knowledge. Herein the subconscious intellect assumes the control of the creative process and the limitations of human logic do not affect the solutions.

### **Stage IV: Idea Generation**

Multiple ideas and solutions (alternative courses of actions) are generated at this stage. These ideas are brainstormed to assess the feasibility, by using previous experiences, insight and fears. Thus this is the stage of evolution of alternative ideas or solutions.

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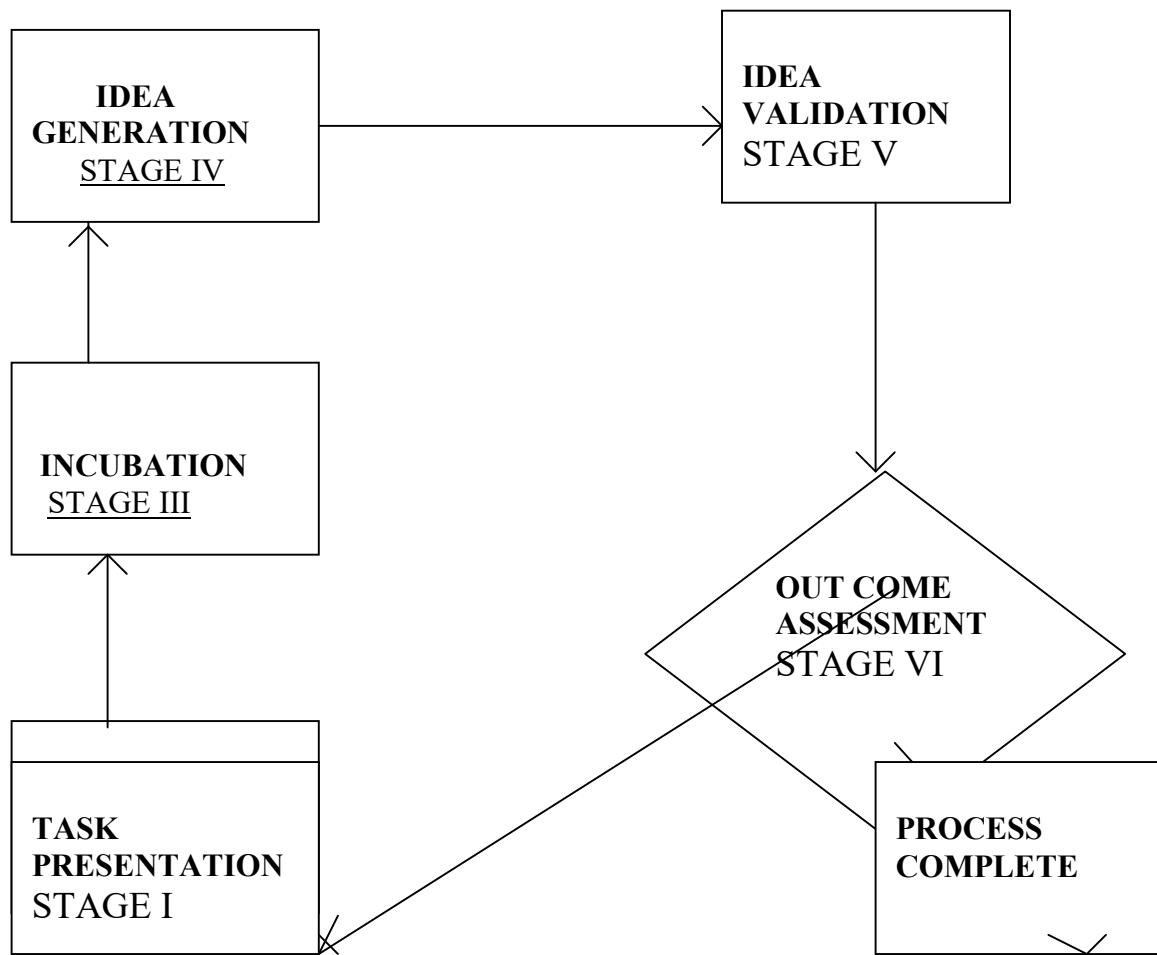
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### Stage V Idea Validation

Ideas generated in the previous stage needs to be verified and proved realistic, useful and practical. Various approaches to the problem are attempted using previous experiences, insight and fears. Ideas are recognized as being feasible. This is the stage that refines knowledge into application.

### Stage VI Outcome Assessment

An assessment of the creative process can either lead to the achievement of goal wherein a creative idea or solution to the problem is located or no progress in this direction is achieved. In any case the creative process ends. If the result is between the two extremes then the process returns to stage I





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Existence of creativity demands a conducive climate, so that creativity can thrive and flourish within the organization. The conducive climate means harnessing following things:

- Rewarding creative ideas and process
- Encouraging people to suggest and experiment new ideas
- Open communication within the organization
- Giving autonomy and freedom for decision making to the employees
- Using participative method for problem solving

### **Creative Thinking**

Creative thinking can be defined as Specific thought processes that improve the ability to be creative. It is important to be at an optimal state of mind for generating new ideas, for thinking deliberately in ways that improve the likelihood of new thoughts occurring and for maximizing the ability of the brain to think of new ideas. Hence creative thinking is all about the ability to think of original, diverse and elaborate ideas. It can also be termed as a series of mental actions, which produce changes, and developments of thoughts. Since creative thinking is the process of exploring multiple avenues of actions or thoughts (Sometimes called divergent thinking because thought patterns and areas of belief are expanded.) it leads to multiple solutions to the problems.

### **Lateral Thinking**

This term was first used by Edward de Bono. It is similar to Creative Thinking as it is also seeking to solve problems by unorthodox or apparently illogical methods. Lateral



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Thinking can be defined as "A set of systematic techniques used for changing concepts and perceptions and generating new ones".

### *Views of Edward de Bono on Lateral Thinking*

DR. EDWARD DE BONO IS REGARDED AS THE WORLD'S LEADING authority in the direct teaching of thinking as a skill. His work is in use in thousands of schools around the world and mandatory on the curriculum in some countries. His instruction in thinking has been sought by major corporations such as: IBM, Microsoft, Shell, Prudential, GM, Ford and Citicorp.

*He is the originator of 'lateral thinking'* which for the first time in history puts creativity on a formal, usable basis. Based on an understanding of the brain as a self-organising mechanism, Edward de Bono designed specific thinking tools which are now widely used. He has been called 'the father of thinking about thinking'.

Edward de Bono defines lateral thinking as the method of "Exploring multiple possibilities and approaches instead of pursuing a single approach."

Edward de Bono has written extensively about the process of lateral thinking -- the generation of novel solutions to problems. The point of lateral thinking is that many problems require a different perspective to solve successfully.

De Bono identifies four critical factors associated with lateral thinking:

- Recognize dominant ideas that polarize perception of a problem
- Searching for different ways of looking at things
- Relaxation of rigid control of thinking
- Use of chance to encourage other ideas. This last factor has to do with the fact that lateral thinking involves low-probability ideas, which are unlikely to occur in the normal course of events.



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Example:

The following anecdote is provided by DeBono (1967). A merchant who owes money to a moneylender agrees to settle the debt based upon the choice of two stones (one black, one white) from a moneybag. If his daughter chooses the white stone, the debt is canceled; if she picks the black stone, the moneylender gets the merchant's daughter.

However, the moneylender "fixes" the outcome by putting two black stones in the bag. The daughter sees this and when she picks a stone out of the bag, immediately drops it onto the path full of other stones. She then points out that the stone she picked must have been the opposite color of the one remaining in the bag. Unwilling to be unveiled as dishonest, the moneylender must agree and cancel the debt. The daughter has solved an intractable problem through the use of lateral thinking.

Principle of lateral thinking according to de Bono is

To get a different perspective on a problem, try breaking the elements up and recombining them in a different way (perhaps randomly).

### **Views Of Pradip N. Khandwalla On Creativity**

Pradip N Khandwalla defines creativity (in his book titled Fourth eye: Excellence through creativity) as “ The employment of playfully exploratory rather than mechanical process of problem solving by a person who is open and curious and imaginative rather than by a person who is inhibited and conventional, to find solutions or designs that are novel (and yet useful) rather than merely run-of-the-mill.”

Some of the views of Pradip N. Khandwalla on creativity

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- In popular mind creativity is confined to the arts, whereas some artist are creative many are not. Barbers, cooks, housewives, engineer, craftsmen, managers, & politician can be creative
- Creativity is not just giftedness or lateral thinking or premissiviness or intelligence. Infact creativity is divergent thinking (when the thinking pattern results into one single correct solution to a problem it is called convergent thinking whereas when thinking pattern results in more than one correct solution to problem thinking it is called divergent thinking).
- Creativity comes in many forms
  - a) representational creativity requires intimate knowledge of whatever is sought to be represented and also a freshness of perspective. As in Kaleidoscope, creativity is largely rearranging or re-expressing the familiarthings/ activities b)abstractive creativity is the capacity to transform a mess into a logical structure or design c) elaborate creativity is the capacity to think of interesting association of one's core idea, the ability to develop an idea & see its consequences
- Creativie abilities : Khandwalla has incited following creative abilities:
  - a) fluency: persons abilities to come up with no. of solutions to a given problem
  - b) variety: persons ability to respond to a problem from variety of viewpoints
  - c) originality: persons ability to come up with unusual but appropriate responses
  - d) ability to sense problems & notice unexplained unsatisfactory or in congruent situation
  - e) ability to go to the roots of a phenomena by unraveling its causes & equally visualizing its consequences
  - f) ability to elaborate on a theme
  - g) ability to go behind the surface features of a problem and see what the real problem is
- Determinants of creative behavior are person's biological constitution & genetic inheritance, her personality, nature of organization/ instituitionwhich one is



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affiliated, orientation of group or team in which the person is affiliated, nature of work the person does, values of culture in persons life.

### **Summary**

Innovation can be defined as the successful exploitation of new ideas – incorporating new technology, design & best practice is the key business process that enables the businesses to compete effectively. Creativity can be defined the process of developing an original product, service or idea that makes a socially recognized contribution. Edward De Bono identified that creativity is not just innovation it also includes incremental changes added to the existing system, product, process etc. The stages of creativity are a) Task presentation b) Presentation c) Incubation d) idea generation e) idea validation f) Outcome Assessment.

In life, it is useful, as Steven Covey suggests, to find those activities that help us center ourselves, that help us learn, and that help us develop our humanity and its potential.

Understanding creativity, it would appear, can assist with both of these tasks if we approach it with an attitude of commitment, curiosity, and caring.

### **End of the chapter Exercises**

- Q1. Define Innovation and list the various types of Innovation
- Q2. Discuss different myths about innovation
- Q3. Define creativity. Discuss the process of creativity.
- Q4. Discuss the linkage between creativity, innovation & entrepreneurship.
- Q5. Differentiate Creative & lateral Thinking by giving examples.
- Q6. Discuss the theory of Edward de bono on lateral thinking
- Q7. Discuss some of the views of pradip N. khandwal on creativity.
- Q8. Discuss the goals for development of creativity in an employee.



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### **End Of The Chapter Project**

Identify five innovative projects/ concepts by reviewing Outlook Magazine of past five issues.