
Entrepreneurship for Engineers

Course Code: MEng 5211



Course objective

- ✓ To increase students' understanding of entrepreneurs and small business;
- ✓ To equip engineering students with the required entrepreneurship tools and inspirations they need to start and grow a successful business.
- ✓ To develop students' ability to integrate the various functional activities involved in managing a small business venture.

Chapter Outline

- ✓ Definition of Entrepreneurship
- ✓ Entrepreneurship Vs Entrepreneur
- ✓ Characteristics and Skills of Entrepreneur
- ✓ Entrepreneurial Myths
- ✓ Advantages of Entrepreneurship
- ✓ The Entrepreneurial Decision
- ✓ Entrepreneurial Motivators
- ✓ Drawbacks of Entrepreneurship
- ✓ Current Entrepreneurial Trends

Entrepreneurship Definition

- ✓ It is a philosophy or process through which an entrepreneur seeks innovation and employment.
- ✓ **Entrepreneurship** is the process of doing something new and something different for the purpose of creating wealth for the individual and adding value to the society. (Kao, 1993)

... Entrepreneurship Definition

- The various definitions identify **two** basic elements of entrepreneurship: innovation and risk bearing.
 - **Innovation:** is doing something new or something different.
 - ***Risk bearing:*** Giving birth to a new enterprise and doing something new and different involve risk.
- Earn profit or incur loss depending on changing customer preferences, increased competition, shortage of raw materials etc.

Standard Definition

- Entrepreneurship is the process of creating something different with **value** by devoting the necessary **time and effort**, assuming the accompanying financial, social risks and receiving the resulting rewards of monetary and personal satisfaction and independence.

Forms of Entrepreneurship

▪ **Entrepreneurship can take three different forms**

1. The individual entrepreneur

2. Intrapreneur:

a person who does entrepreneurial work within large organization.

3. Social Entrepreneur: People who drive social innovation and transformation in various fields including education, health, environment and enterprise development

Who is an Entrepreneur?



- What are the profiles of Entrepreneurs?
- Are Entrepreneurs Born or Made?
- What is the distinction between
Entrepreneurship and Entrepreneurs

...Who is an Entrepreneur?

- ❑ Entrepreneur is a person who owns, organizes, manages and runs an enterprise assuming the risk of a business or enterprise.
- ❑ Entrepreneur is a person who establishes a new business venture and is a visionary leader- a person who dreams great dreams. (Robert Hisrich)
- ❑ Entrepreneur is a person who has the ability to see and evaluate business opportunities to gather the necessary resources to take advantage of them, and to initiate appropriate action to ensure success. (Meredith, 1982)

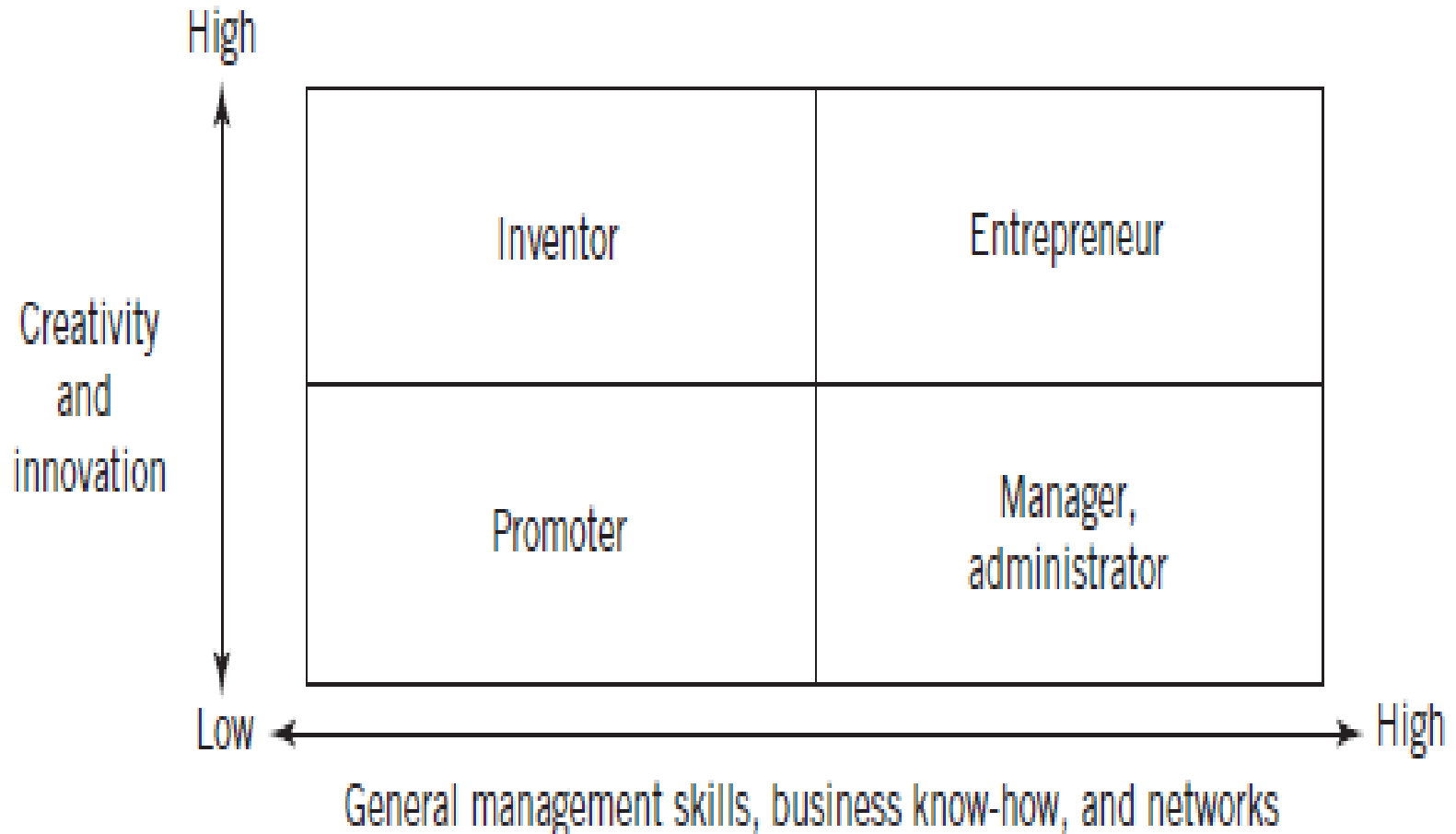
...Who is an Entrepreneur?

- **Entrepreneur** is someone who is specialized in taking judgmental decisions about the coordination of scarce resources (Caisson).

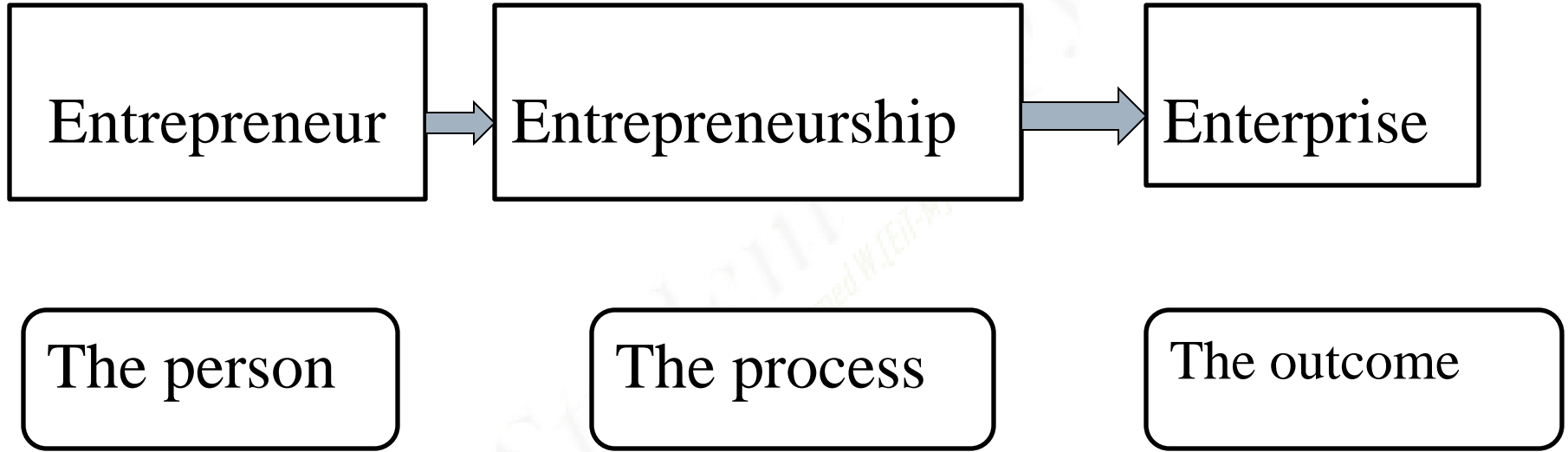
- Entrepreneur is an individual who:
 - Has the ability to identify and pursue(follow) a business opportunity
 - Undertake a business venture
 - Raises the capital to finance it
 - Gathers the necessary resources
 - Set goals for himself/herself and others
 - Assumes major portion of the risk

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Who Is the Entrepreneur?



Entrepreneurship vs Entrepreneur



Characteristics and Skills of Entrepreneur

- ✓ Entrepreneurial characteristics can be looked at to determine a set of skills useful for an entrepreneur to possess.
- ✓ It is unlikely that all these skills will be present in sufficient measure in all potential entrepreneurs.
 - For instance some people may have the creative talent to generate new ideas but lack the ability to organize resources, and others may have a compelling need to achieve but lack the resourcefulness to create a new venture.

1. Innovator

- ❖ Within the constraints of available resources that society or a nation offers, entrepreneurs make the best use of them.
- ❖ An entrepreneur introduces new products, new technologies and new economic activities.
- ❖ He/she creates new demands and new aspirations and new methods to fulfil them.
- ❖ Drucker Writes, “Entrepreneur create something new, something different, they change or transmute values”.

2. Motivation towards Achievement

- ❖ Entrepreneurs are internally driven by a strong desire to compete, to excel against self imposed standards.
- ✓ Besides, they have the desire to achieve something they can be proud of .
- ✓ Individuals with a low need for achievement are those who seem to be contented with their present status.
- ✓ On the other hand. Individuals with the high need for achievement like to compete with some standard of excellence and prefer to be personally responsible to their own assigned tasks.

3. Moderate risk taking

- Entrepreneurs are not wild risk takers but are instead calculated risk takers.
- Risk taking is an inherent part of business ownership. Staying safe rarely pays off in the long run.
- Risks are not taken blindly.
- Careful research and previous experiences are taken into account.
- With this in concern, they carefully think about these four forms of risks: financial risk, career risk, family risk, etc

4. Skill for Organizing

- A true entrepreneur is one who has the ability to mobilise resources in the best possible manner for achieving the business objectives.
- Entrepreneurs know how to put the right people together to accomplish a task.
- Effectively combining people and jobs enables entrepreneurs to transform their vision into reality

5. Goal Oriented

- An entrepreneur must be able to set realistic but challenging goals for him as well as for others in the organisation.
- Entrepreneurs are highly goal-oriented and specifically aim at producing goods and services that represent needs of consumers.
- Entrepreneur is planner and doer, dreamer and action-taker.

6. Initiative and Responsibility

- Entrepreneurs feel a deep sense of personal responsibility for the outcome of ventures they start.
- They prefer to be in control of their resources, and they use those resources to achieve self-determined goals.
- They do things before being asked or forced by others / Events.

7. Emotional Stability and Self-control

- ❖ Emotional health is a must for entrepreneurs to meet the challenges of exploiting a new business opportunity.
- ❖ They believe in imposing control on themselves and their enterprises rather than leaving their success to fate.
- ❖ They believe success and failure of their venture will be governed by their accomplishment and they believe that they can influence their outcomes and action.

8. Communication Ability:

- This ability pertains to communicating effectively.

As a leader an entrepreneur communicates effectively with all concerned such as:

- financiers,
- employees,
- customers,
- suppliers,
- creditors
- and all who are concerned with the new enterprise.

9. Future Orientation

- Not satisfied to sit back and revel in their success, real entrepreneurs stay focused on the future.
- Where as traditional managers are concerned with managing **available resources**, entrepreneurs are more interested in spotting and capitalizing on **opportunities**.

10. Commitment and determination:

- Entrepreneurship is hard work, and launching a company successfully requires total commitment from an entrepreneur.
- Most entrepreneurs have to overcome seemingly insurmountable barriers to launch a company and to keep it growing. That requires commitment.
- They often immerse themselves completely in their businesses.

11. High energy level:

- ✓ Entrepreneurs are more energetic than the average person, That energy may be a critical factor given the incredible efforts required to launch a start –up company.
- ✓ Building a company requires a great deal of stamina. It is obvious that entrepreneurs are engaged in extraordinary work load and stressful dedication that require great deal of energy.

12. Technical Knowledge

- An entrepreneur must have a reasonable level of technical knowledge.
- The entrepreneur should have a keen desire to change and adopt new industrial or commercial technology available in the market.

13. More than a Manager

- An entrepreneur is more a true leader and less a manager.
- An entrepreneur builds up his team, educates them, keeps high level of motivation and also provides an environment for creative and focused to work culture.
- He is the leader of the team.
- He inspires loyalty and hard work to raise productivity and efficiency.

14. Problem Solver and a Decision Maker

- ✓ An entrepreneur should be a creative problem solver to turn difficulties into advantages.
- ✓ Entrepreneurs face lots of problems right from the conception of an idea to its implementation.
- ✓ Entrepreneurs who are decisive arrive at the right solution to the problem by spending the least possible time and money.

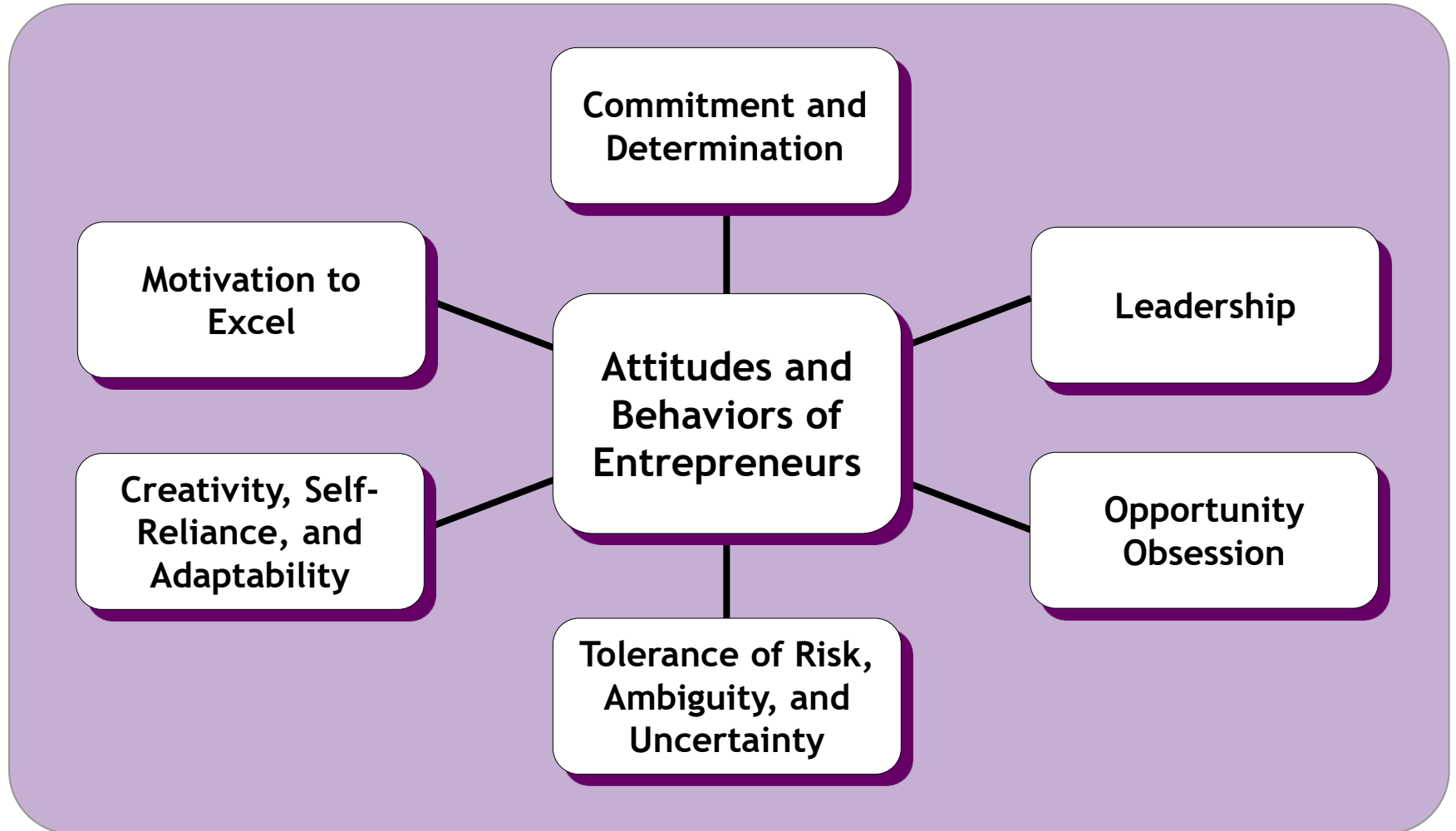
15. Information Seeking:

- Entrepreneurs take action on own to get information to help reach objectives or clarify problems.
- They does personal research.
- Consult experts for business and technical advices and use their personal networks for the same.

16. Time Management

- Entrepreneurs know that time is finite, they know how to manage their time effectively in that they would be able to live their lives, accomplish the tasks that they need to accomplish, and enjoy lives.
- **Concern for high quality work:** entrepreneurs act to do things that meet or beat existing standards of excellence. They have high desire to produce of work of high quality.

Entrepreneurial Characteristics



Entrepreneurial Myths-NOT facts

- ✓ Entrepreneurs are Lucky
- ✓ Entrepreneurs are born not made
- ✓ Entrepreneurs are always inventors
- ✓ Entrepreneurs extreme risk takers (Gamblers)
- ✓ All Entrepreneur need to be successful in Money

Advantages of Entrepreneurship

❖ To an Individual

- (a) Provides Self Employment for the entrepreneur
- (b) Entrepreneur can provide employment for near & dear one
- (c) Entrepreneurship often provides an employment and livelihood for next generations
- (d) Freedom to use own ideas – Innovation and creativity
- (e) Unlimited income / higher retained income
- (f) Independence
- (g) Satisfaction

Cont...

❖ **To the nation**

- (a) Provides larger employment
- (b) Results in wider distribution of wealth
- (c) Mobilizes local resources, skills and savings
- (d) Accelerates the pace of economic development
- (e) Stimulates innovation & efficiency

Wage Employment Vs Entrepreneurship

Wage Employment

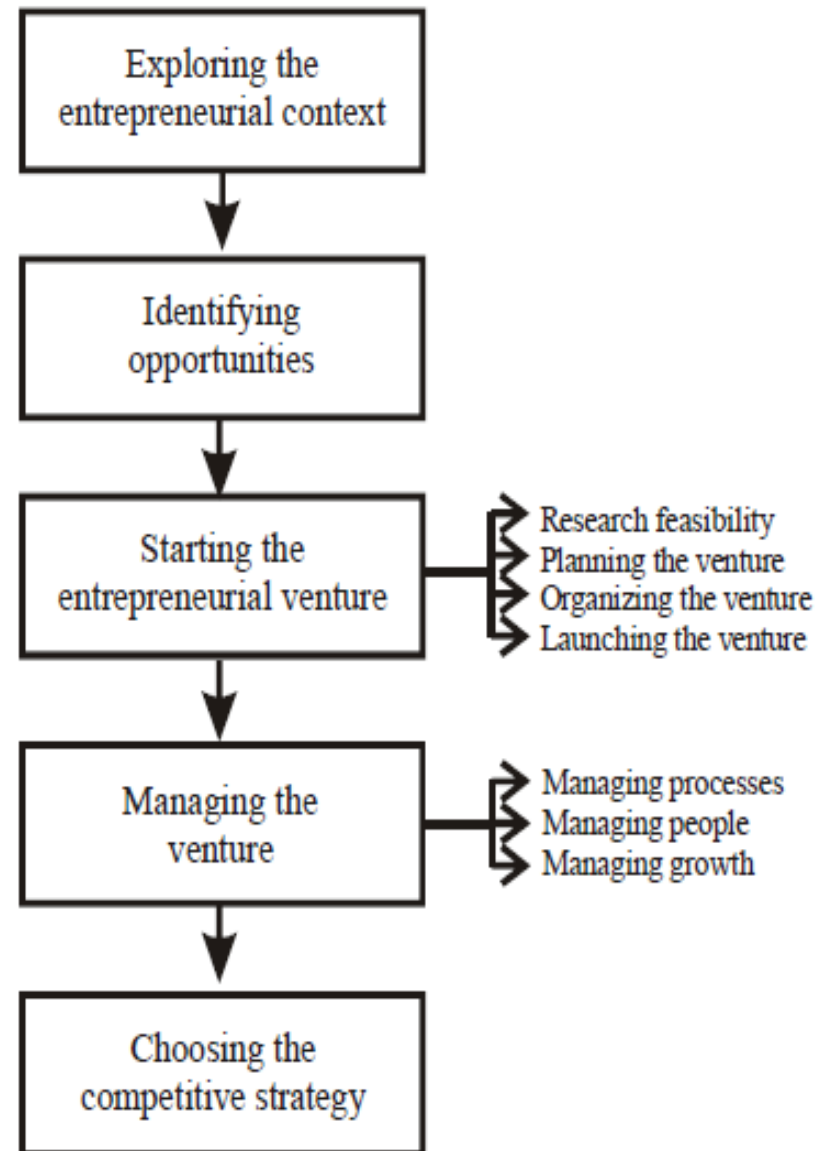
- Work for Others
- Follow Instructions
- Routine Job
- Earning is fixed, never negative
- Does not create wealth
- Can choose from-
 - Government service
 - Public Sector
 - Private Sector

Entrepreneurship

- Own Boss
- Make own plans
- Creative activity
- Can be negative sometimes, generally surplus
- Creates Wealth, contributes to GDP
- Can choose from-
 - Industry
 - Trade or Service Enterprise

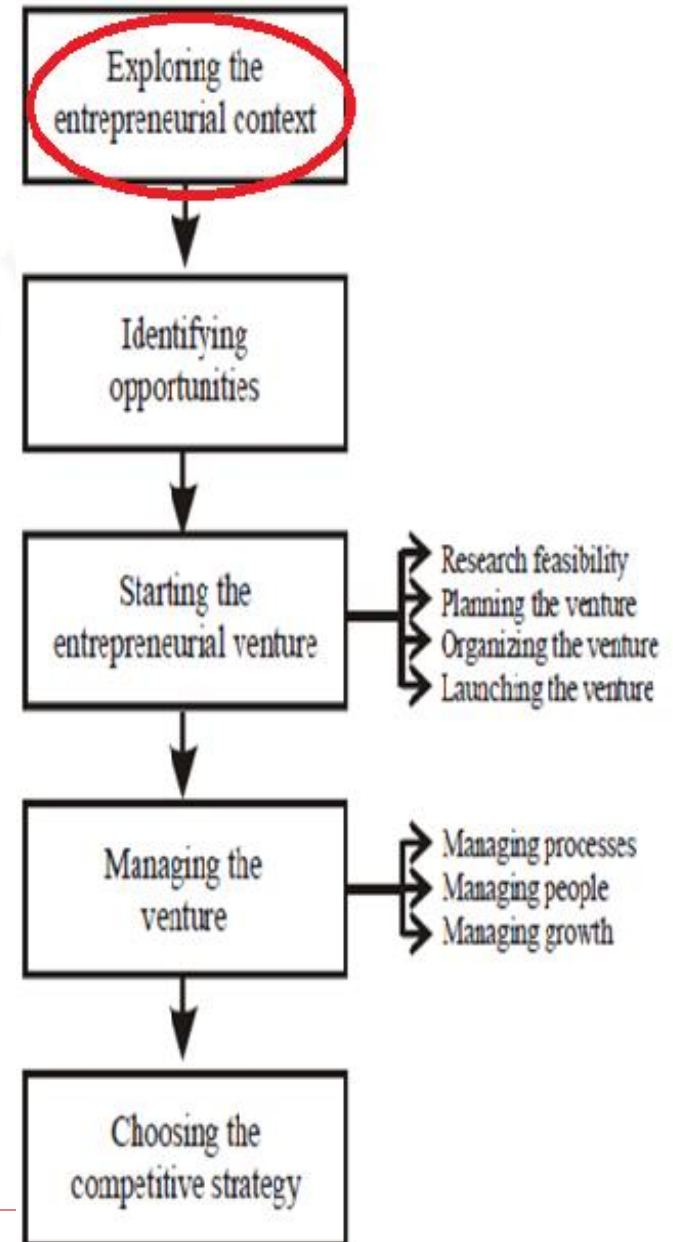
The Entrepreneurial Process

- A leadership function which centres round the dynamics of entrepreneurial growth and change.
- It is a process comprising several distinct stages.



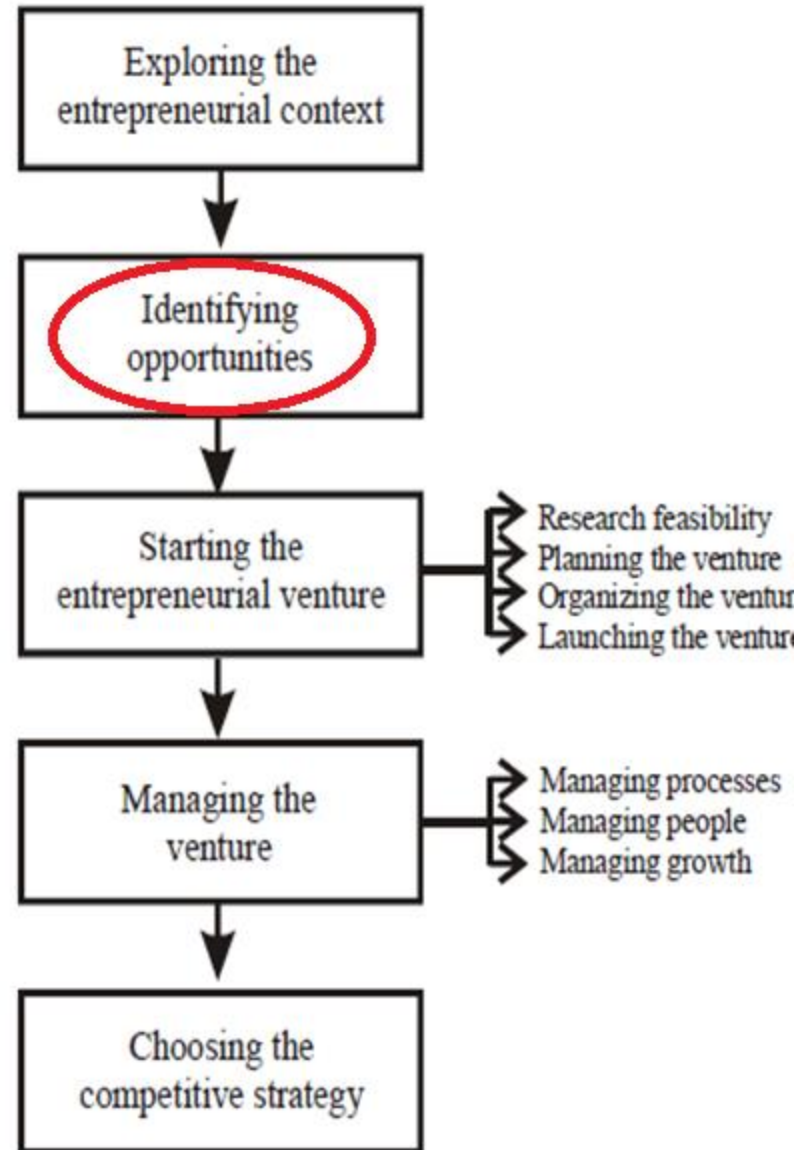
Exploring the Entrepreneurial Context

- Context determines the “rule” of the game and what decisions are likely to be successful.
- The context includes the realities of the new economy, society’s laws and regulations that compose the legal environment, and the realities of the changing world of work
- Only through exploring the context can entrepreneurs discover the untapped opportunities and competitive advantage(s)



Identifying Opportunities:

- ❑ A crucial aspect of entrepreneurial process
- ❑ What are opportunities?
 - These opportunities are positive external trends or changes that provide unique and distinct possibilities for innovating and creating value.
 - Entrepreneurs make search for profitable ones and then selects an attractive business opportunity.
 - The entrepreneurial process also involves pinpointing a possible competitive advantage

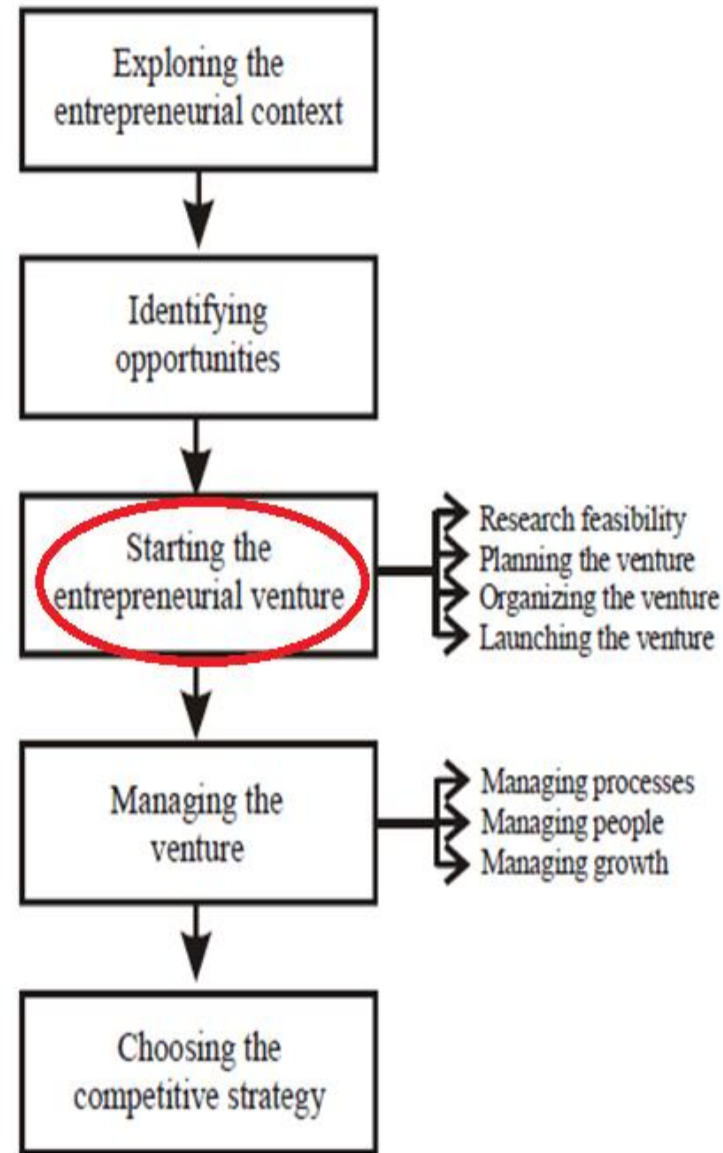


Starting the Venture

□ Entrepreneurs must look at the issues involved with actually starting up their entrepreneurial venture.

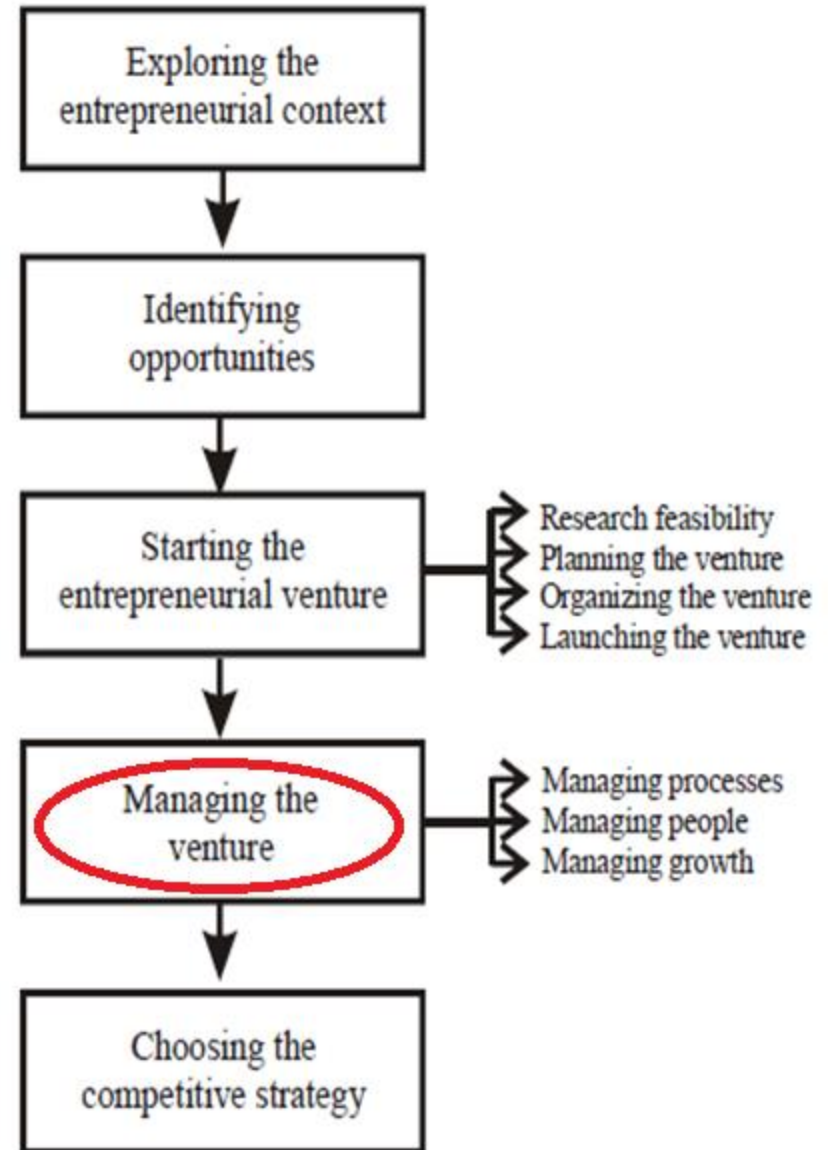
□ Included in this phase of the entrepreneurial process are the following activities;

- Researching the feasibility of the venture,
- Planning the venture,
- Organizing the venture and launching the venture.
- Financial, physical and managerial resources must be collected to launch the venture.



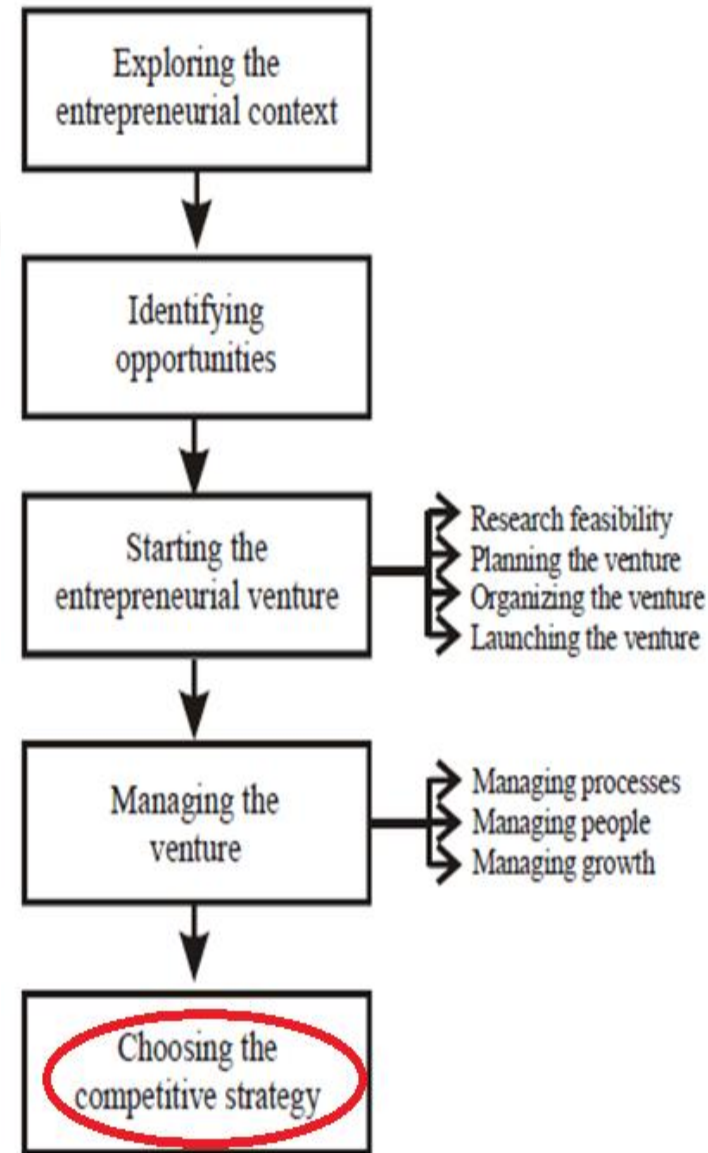
Managing the Venture

- An entrepreneur also must effectively manage the venture by managing processes, managing people and managing growth.
- This requires the talents of leading, decision making, executing, controlling and various managerial skill.



Choosing the Competitive Strategy

- ✓ Once the entrepreneurial venture is up and running, the last step is to choose competitive strategy.
- ✓ Peter Drucker mentions following specific entrepreneurial strategies.
 - Being fustest with the mostest.
 - Creative imitation.
 - Entrepreneurial judo.
 - Finding and occupying a specialised ecological niche.
 - Changing the economic characteristics of a product



Entrepreneurial Motivators

- **Pull Factors-** the factor which attract a person to become entrepreneur
 - Perception of Advantages- If a person feels that he can earn better or overall gains in terms of money.
 - Spotting an Opportunity
 - Government Policies
 - Motivation
 - Influenced by Culture, Community, Family Background, Teachers, Peers, etc.

... Entrepreneurial Motivators

- ❑ **Push Factors-** the factors that force him
 - Job Dissatisfaction
 - Relocation
 - Joblessness
 - Lay off – period of not working
 - Retirement
 - Boredom- *This is applicable to many ladies from well to do families. With their army of servants to take care of home, they find an opportunity to keep the boredom away and start ventures*

Potential Drawbacks of Entrepreneurship

- Uncertainty of Income
- Risk of losing entire capital
- Psychological and Social Tensions
- Long Hours and Hard work
- Lower Quality of life until business get established
- Complete responsibility
- Competition

Current Entrepreneurial Trends

- ❖ One way to identify business opportunities is to study current trends that provide opportunities for entrepreneurs.

Internet businesses

social entrepreneurship

service businesses

focus on technology

home-based businesses

corporate ventures

green businesses

THE END