



स्वाध्यायात्मा प्रमदः  
दिल्ली सरकार

# New Era of Entrepreneurial Ecosystem and Vision (NEEEV)



**TEACHER  
MANUAL  
2025**

**Class 11<sup>th</sup> to 12<sup>th</sup>**



# **New Era of Entrepreneurial Ecosystem and Vision (NEEEV)**

**सोच से सृजन तक - उद्यमिता की उड़ान**

**TEACHER MANUAL**

**Class 11<sup>th</sup> to 12<sup>th</sup>**

**2025**



स्वाध्यायान्ता प्रमदः

**State Council of Educational Research and Training, Delhi**

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*This publication has been designed as part of SCERT's mission to provide high-quality, innovative educational resources that empower teachers and students across the state. It aims to foster 21st-century skills, including creativity, critical thinking, problem-solving, and real-world application of knowledge.*

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**Rekha Gupta**

Chief Minister, Delhi

### **MESSAGE**

Our Hon'ble Prime Minister, Shri Narendra Modi ji, envisioned India's youth not merely as aspiring professionals, but as enterprise builders. Initiatives like Startup India and Atal Innovation Mission (AIM) have given shape to his vision, fostering a national culture of innovation and enterprise. These path-breaking steps aim to unlock the creative potential of every young mind.

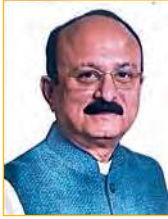
The National Education Policy (NEP) 2020 builds on this vision by emphasizing skill-based, experiential learning that equips students to thrive in a dynamic world. In alignment with this, the New Era of Entrepreneurial Ecosystem & Vision (NEEEV) scheme supports these transformative steps. It aims to plant the seeds of entrepreneurial thinking right within our classrooms.

This Teacher Manual is a cornerstone in our efforts to empower our educators to turn learning spaces into hubs of innovation, where students are encouraged to ideate, explore, and take initiative.

The release of this manual is a testament to our shared commitment to shaping a future-ready generation that is self-reliant, creative, and capable of contributing meaningfully to society and the economy.

I extend my deepest appreciation to all educators, curriculum experts, and contributors who brought this manual. Let this resource serve as a torchbearer, inspiring schools across our state and beyond to embrace the spirit of entrepreneurship and ignite in every learner the courage to create, innovate, and lead.

**Rekha Gupta**



## **ASHISH SOOD**

MINISTER OF HOME, POWER, URBAN DEVELOPMENT, EDUCATION,  
HIGHER EDUCATION, TRAINING & TECHNICAL EDUCATION  
GOVT. OF NATIONAL CAPITAL TERRITORY OF DELHI

### **MESSAGE**

Dear students and teachers,

Our country stands at the threshold of a new era, where innovation, self-reliance, and entrepreneurship will shape our future. The NEEEV (New Era of Entrepreneurial Ecosystem and Vision) curriculum has been developed with this vision in mind.

NEEEV isn't just a curriculum; it's a new way of thinking and doing. It teaches us that every idea, no matter how small, if pursued with hard work and dedication, can bring about profound change in society.

Through this program, students will learn how to turn problems into opportunities, how to build teams that bring ideas to life, and how failure is a necessary part of growth. It will inspire them to become confident, creative, and responsible citizens.

Our teachers are the true leaders on this journey, not just teaching students but also instilling confidence in them. I am confident that NEEEV will unleash a new energy of innovation and entrepreneurship in every school in Delhi.

Let us, together, ensure that every child becomes not just a job seeker, but an opportunity creator taking not only their dreams but also their country to new heights.

  
(Ashish Sood)

पांडुरंग के. पोले, भा.प्र.से  
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### MESSAGE

In today's rapidly changing world, education must transcend the mere transmission of knowledge. Education today must do more than deliver knowledge; it must empower children to lead, to solve real problems, and to adapt to a world that is rapidly evolving. As we witness dramatic shifts in global economics and career landscapes, the need for an entrepreneurial mindset in our schools has never been more urgent.

The New Era of Entrepreneurial Ecosystem and Vision (NEEEV) is a bold step in this direction. It aims to nurture critical thinking, creativity, leadership, and resilience among students right from the school level. Our schools are the foundation of the state's future workforce and innovation capacity.

This Teacher manual is designed to build an ecosystem where students can think independently, act ethically and solve local and global challenges with confidence. It will support our teachers in providing the right guidance with the right vision to achieve these goals. In the coming years, we envision more and more schools actively engaging students in idea generation, collaborative problem-solving and community-driven projects that extend far beyond the boundaries of textbooks.

This Manual is designed to help educators implement the vision of NEEEV through practical strategies, classroom activities and reflective practices. It reflects our belief that every student has the potential to develop ideas that can change the world around them for the better.

Let us work together to make NEEEV a catalyst for change where every school becomes a hub of innovation, every teacher a mentor of future leaders, and every student a contributor to the state and nation's progress.

  
(PANDURANG K. POLE)



### MESSAGE

We live in a world that is evolving faster than ever, in which creativity, adaptability and problem-solving are as important as academic achievement. As educators, we carry the responsibility of preparing our children not just for exams, but for life beyond the classroom.

The New Era of Entrepreneurial Ecosystem and Vision (NEEEV) reflects this commitment towards nurturing young minds into self-reliant, innovative and socially conscious individuals who can shape the future with confidence and compassion.

The purpose of NEEEV is rooted in a bold, yet practical vision to transform schools into vibrant spaces for entrepreneurial learning. Through this teacher manual, we aim to enable schools to bring entrepreneurship out of fancy boardrooms to classrooms where every child, regardless of background, is given the tools to explore ideas, take initiatives and develop leadership qualities. It is not about creating future business owners alone, but about cultivating a mental framework that embraces challenge, takes responsibilities and contributes to the greater good for the community. This Teacher Manual envisions a space where teachers act as mentors, guiding students to think independently, work collaboratively and turn ideas into action.

The role of teachers in this journey is invaluable. You are the anchor of this transformation. With your support, we can ensure that every student is not just prepared for the world but empowered to improve it.

Let us take this step together to build a generation of doers, dreamers and change makers.

(VEDITHA REDDY, IAS)

**Dr. Rita Sharma**  
Director SCERT



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**MESSAGE**

Today's classrooms must inspire more than academic excellence; they must empower students to become creative thinkers, innovators, and leaders of tomorrow. The NEEEV (New Era of Entrepreneurial Ecosystem and Vision) scheme takes a significant step toward this goal by embedding entrepreneurial skills into school education. This teacher manual aims to help educators nurture a generation that is self-reliant, innovative, and socially responsible.

At NEEEV's core is the seamless integration of entrepreneurial skills across subjects, encouraging students to think critically and creatively in their daily learning. NEEEV provides opportunities for students to prototype, experiment, and confidently bring ideas to life. It also connects students with mentors from the startup world, offering real-world entrepreneurial guidance from those who have navigated the journey. 'Startup Stormers' competition provides learners access to a world of challenges that foster continuous innovation and collaboration.

Most importantly, NEEEV champions an inclusive culture where every child, regardless of background, is empowered to contribute meaningfully and build real-world solutions. This manual serves as both a guide for teachers and a commitment to our students—that their ideas matter and their futures are bright. Together, we will create schools where innovation thrives, and every learner is prepared to lead with courage, compassion, and creativity.

Dr. Rita Sharma.

## PREFACE

In an era of rapid transformation, education can no longer be confined to textbooks and examinations. The demands of the 21st century call for empowered learners who can think critically, be creative, solve complex problems, and lead with empathy. Here, entrepreneurship is not merely about setting up businesses; it is about fostering a way of thinking that embraces challenge, looks for opportunities, and gives back to society.

The New Era of Entrepreneurial Ecosystem and Vision (NEEEV) is a pioneering step of the Government of Delhi aiming to inculcate entrepreneurial thinking and developing skill for enterprise establishment into our classrooms. Inspired by the Viksit Bharat vision, NEEEV takes schools away from being mere buildings of rote learning into places where curiosity is celebrated, creativity is nurtured, and every student is granted the right to dream big and act boldly.

NEEEV Scheme would provide practical resources for teachers to carry the spirit of entrepreneurship into the classroom through engaging activities, team projects, and real-life problem-solving. It provides teachers with tools and strategies on how to mentor these budding young innovators, help them navigate through challenges, and transform problems into opportunities.

Educators are the driving force of transformation. With your passion, Delhi can nurture a generation of self-empowered, innovative, and socially responsible citizens who will not just adapt to the future but shape it. Let's work together so that every school becomes a center of innovation, every teacher a mentor of change, and every student a leader of tomorrow.

**Dr. Sapna Yadav**

Assistant Professor / Chairperson NEEEV  
SCERT, Delhi

# Table of Content



| Sr. No.    | Chapter Name                                            | Page No. |
|------------|---------------------------------------------------------|----------|
| Chapter 1  | Unicorn Thinking –<br>From Vision To Venture            | 1        |
| Chapter 2  | Visionaries At Work –<br>Turning Ideas Into Impact      | 14       |
| Chapter 3  | The Entrepreneurial Mindset –<br>Thinking Beyond Limits | 20       |
| Chapter 4  | Design Thinking                                         | 27       |
| Chapter 5  | Innovation And Creativity                               | 50       |
| Chapter 6  | Financial Literacy                                      | 58       |
| Chapter 7  | Pick Your Path: Legal Forms of Business                 | 69       |
| Chapter 8  | Make Some Noise : Marketing For<br>Startups             | 81       |
| Chapter 9  | Tools (AI Etc.)                                         | 95       |
| Chapter 10 | Why Startups Fail ?                                     | 108      |





# Unicorn Thinking

## – From Vision to Venture



### Learning Outcomes



After studying this chapter, learners will be able to:

- ➔ Discuss how world-changing startups are born from visionary thinking.
- ➔ Analyze the mindset, models, and methods used by unicorn entrepreneurs.
- ➔ Reflect on how environment, exposure, and self-belief influence ambition.
- ➔ Learn the strategic steps to initiate and scale a unicorn venture.
- ➔ Explore key economic, social, and technological trends shaping entrepreneurship.
- ➔ Foster critical thinking, creative problem-solving, and collaborative ideation.

### Opening Thoughts

What does it take to build a billion-dollar idea from scratch? Behind every unicorn startup lies more than just innovation—it's a bold mindset that dares to reimagine the world. In this chapter, we step into the shoes of visionary entrepreneurs who transformed simple ideas into game-changing ventures. By understanding their thought processes, strategies, and the ecosystems that supported them, you'll discover how ambition, creativity, and calculated risk-taking fuel extraordinary success. From recognizing emerging trends to crafting scalable business models, this chapter lays the foundation for thinking big, acting smart, and building ventures that matter.

Before diving into the remarkable journey of such trailblazing entrepreneurs, it's important to understand that big ideas don't always start with groundbreaking technology or massive funding. More often, they begin with a question: *What problem can I solve that others are ignoring?* The path from idea to impact is rarely smooth—it's shaped by a willingness to challenge norms, spot hidden opportunities, and persist through doubt. This chapter bridges theory with real-world action by showcasing how bold thinking, when paired with grit and insight, can defy conventional expectations.

### Story 1.1 The Entrepreneurial Journey Begins

#### *The face behind the Ventures*

**From Finance to Fashion :** Falguni Nayar's Inspiring Success One such story is that of Falguni Nayar—a powerful example of what happens when conviction meets clarity of purpose.

## *They Doubted Her – Until She Created a Billion-Dollar Company*

“You’re too old. It’s too late. It won’t work.”

That’s what Falguni Nayar heard when she left her banking career at age 50 to build a beauty-tech startup.

In a world where entrepreneurship is romanticized as a young person’s game, she went against the grain. Falguni had no tech background. No startup experience. Yet she saw a gap: Indian women lacked a reliable platform for beauty and wellness. So She launched Nykaa But People laughed and said:

### *“Who buys makeup Online in India?”*

“Amazon will dominate this space.”

But Falguni built more than an e-commerce brand. She build trust. She educated customers, curated quality products, and invested in community content.

Nykaa is now valued at over \$13 billion, (INR 1300 crores) with hundreds of stores across India. Falguni became the richest self-made woman entrepreneur in India – not because she waited for the right time, but because she *made* it the right time.



The journey of Falguni Nayar sets the stage for a powerful truth which is - extraordinary ventures are often born not from privilege, but from clarity of vision and courage to act. Her story reminds us that age, background, or lack of experience need not define what’s possible. But she’s not alone. Across India, a new generation of changemakers is daring to think differently, challenge old norms, and solve real problems. To truly understand what it takes to build a billion-dollar idea, we must expand our lens. It’s not just about one success story — it’s about a mindset that refuses to stay confined. In the next section, we explore how the spirit of thinking beyond boundaries is sparking innovation across the country, transforming everyday challenges into billion-dollar opportunities.

## *Thinking Beyond Boundaries*

### *Why do so many bright students dream small?*

Our ambition is shaped by exposure.

If you've only seen constables, you don't dream of IPS officers. If you've only seen job seekers, you don't think of job creators.

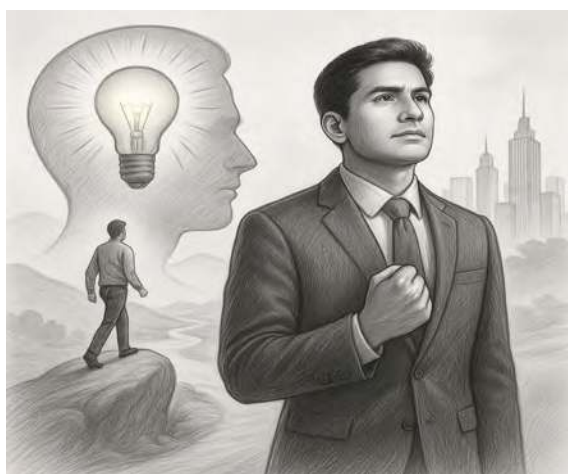
Our environment sets the ceiling of our imagination. But the ceiling is not real. It's inherited.

Your dream shouldn't be defined by your geography, background, or income. It should be driven by the problems you want to solve and the change you want to create.



### *"12th Fail" : A tale of Integrity and Determination*

Take the story of Manoj Sharma from *12th Fail*. He wasn't born into privilege. He had no coaching, no connections. But when he learned about the IPS, he didn't just accept it as someone else's dream — he made it his own.



Manoj's story is more than just an inspiring tale — it's a mirror of our own potential. It shows that ambition is not reserved for the privileged; it's powered by purpose. He didn't wait for ideal conditions or external validation ; he changed his reality by changing his thinking. That's the essence of every big dream: it begins in the mind, long before it becomes visible to the world. Whether it's cracking the civil services or launching a disruptive startup, the first and most important leap is internal — the courage to believe *"Why not me?"* When you give yourself permission to imagine more, you begin to walk the same path as every entrepreneur who dared to defy their limits.

*The question isn't: "Can I do it?" The real question is: "Am I ready to imagine it?"*

In the world of business and entrepreneurship, a "unicorn" is a privately held startup company valued at over \$1 billion. But Being a unicorn isn't only about money - it's about mindset, impact, and disruption. It's a symbol of extraordinary ambition, of taking bold ideas and turning them into game-changing realities.

Unicorns are companies that defy the odds. They start small - often with just a laptop, a small team, and a powerful belief — but they grow to solve massive problems at scale. They challenge outdated systems and bring fresh energy to stagnant industries. They use limited resources to create disproportionate impact. They don't wait for the perfect moment or perfect funding. They act, learn, and build - fast.

*So, why should you care?*

Unicorns are not myths. They are built by people like you — young, curious, frustrated with the status quo, and brave enough to imagine something better. In fact, India's startup ecosystem is one of the fastest growing in the world, and many unicorns have come from unexpected places and ordinary backgrounds. These are not superheroes — they are relatable role models.

# Entrepreneurial Case Studies

## 1. Case Study

### *Bhavish Aggarwal and Making of Ola : Innovation in Indian Transport*

Tired of unreliable taxi services, Bhavish turned his personal frustration into a national solution. Ola revolutionized transport in India by making cabs more accessible, affordable, and **technology-enabled**. He didn't own cars — he built a platform.



## 2. Case Study

### *Razorpay : The Fintech Revolution led by Harshil Mathur and Shashank Kumar*



At a time when Online payments were complicated and broken, these two engineers built Razorpay to simplify digital transactions for Indian businesses. They created a sleek, developer-friendly payment gateway — and became leaders in the fintech space.

## 3. Case Study

### *From Zero to Zerodha : Nithin Kamath's transformed Retail Trading*



Stock trading was once a game only for the rich or well-connected. Zerodha democratized investing by cutting brokerage fees and making the stock market accessible to young, first-time investors — changing the culture of finance in India.

## 4. Case Study

### *From Teacher to Tech Entrepreneur : The Physics Wallah Story*

With just a whiteboard and a smartphone, Alakh Pandey started teaching physics on YouTube. Today, his platform serves millions of students, showing that you don't need VC funding or a fancy office to build an ed-tech unicorn - just authenticity, trust, and impact.

Each of these founders saw a problem that no one else was solving properly -and instead of waiting for someone else to fix it, they did it themselves. They represent the new India - bold, innovative, and self-driven.



## The Relevance to your Goals



Because unicorns aren't just companies. They are invitations — to think big, start small, and believe in your ability to make change. When you study unicorns, you're not just learning business stories — you're learning how to see opportunity where others see obstacles.

India doesn't just need more engineers or government officers — it needs more builders of the future. And the next unicorn could come from your classroom, your dorm room, or your garage.

### Brainstorm

What problem do I wish someone would solve?

Why can't that someone be me?

➔ Start where you are. Use what you have. Dream big — and take action.

## Thinking Big : The Unicorn Entrepreneur's Mindset

Behind every unicorn startup is not just a great idea or lucky break — but a distinct mindset. A way of thinking, acting, and seeing the world that separates ordinary founders from extraordinary ones. Unicorn entrepreneurs don't just build companies — they challenge assumptions, navigate uncertainty, and lead with clarity and courage. This section unpacks the five core mindsets that define them. These are not traits you're born with — they're mindsets you can develop, starting today.

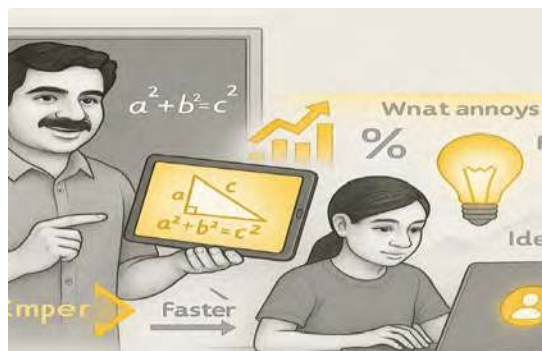
### 1. Visionary Thinking : Seeing Beyond the Now

Unicorn founders see things differently. While others are looking for jobs, they're looking for gaps — invisible needs, everyday frustrations, and inefficient systems waiting to be reimaged. They ask questions like:

- ➔ "Why does this process take so long?"
- ➔ "Why isn't this available in smaller towns?"
- ➔ "Why hasn't anyone solved this yet?"

Think of Byju Raveendran, who saw a gap in accessible, high-quality learning and turned it into a billion-dollar EdTech platform. Visionary thinkers don't chase trends — they create them, by imagining a better world and taking steps to build it.

Start by observing the world around you. What annoys you? What could be simpler, faster, fairer? That's where your startup journey could begin.



## 2. Grit & Resilience : The Secret Weapons of Successful Entrepreneurs



Startups are messy, unpredictable, and often frustrating. Most founders fail — not once, but many times. What separates unicorn entrepreneurs is not that they never fail, but that they always get back up. They learn from every setback, treat failure as feedback, and adapt quickly.

Take Narayana Murthy, who faced multiple rejections before Infosys took off. Or Kunal Shah, whose first startup failed — but he came back with Cred. True entrepreneurs don't give up at the first sign of difficulty. They push through challenges, pivot when needed, and keep the mission alive.

**Resilience is built like a muscle — by facing discomfort, learning fast, and refusing to quit.**

## 3. Risk Tolerance : Fuel for Innovation and Growth

Building a unicorn requires bold decisions. It means stepping into the unknown, often without a guarantee of success. But unicorn founders don't take reckless risks - they take calculated ones. They study the market, understand the downsides, and still make daring moves that others avoid.

For instance, OYO Rooms took the risk of standardizing budget hotels - a fragmented and low-trust market. It worked because the founder had data, a plan, and conviction. Risk-takers don't wait for 100% certainty — they move when they're 60% sure and correct course along the way.

Being comfortable with uncertainty is a superpower. The greatest rewards often lie just outside your comfort zone.



## 4. Customer-Centricity : Beyond Satisfaction to Loyalty



Unicorn entrepreneurs are obsessed with their users. They don't build for investors, headlines, or even themselves — they build for the people who use their product every day. That means listening deeply, testing often, and constantly improving the user experience.

Meesho became successful because it understood the needs of small-town women resellers. Zomato added new features based on constant user feedback. Great founders treat customers like a compass — if you follow them, you'll never lose your way.

**Talk less, listen more.** Watch your users. Ask better questions. The answers to growth are almost always found in their stories.

## 5. Bias for Action : Move Fast Decide Faster

### From Idea to Impact – The Strategic Path

Building a unicorn venture isn't just about having a brilliant idea — it's about turning that idea into real-world impact through clear strategy, relentless execution, and continuous learning. **This journey from idea to impact is not linear, but a cycle of thinking, building, testing, and evolving.** The most successful startups follow a strategic path — one that is grounded in purpose, adaptable to change, and deeply connected to the people it serves.

## Walking the strategic Path : A Step by Step Guide

### Step 1: Start with a Sharp Vision

Every great venture begins with a clear and powerful vision — not a vague dream, but a sharp problem that needs solving. The best startup ideas don't try to do everything; they focus on one specific issue that affects millions but is often overlooked. For instance, Zepto addressed the need for 10-minute grocery delivery in congested cities. When your vision is rooted in real pain points, it becomes the compass that guides every decision you make.



### Deep Dive : Ask Yourself

- ➔ What frustrates people every day?
- ➔ What broken system needs fixing?
- ➔ What's a problem no one is solving well?

### Step 2: Build an MVP (Minimum Viable Product)



Instead of waiting to build the perfect version of your product, launch fast with a basic prototype. This is your MVP — a version with just enough features to test your idea in the real world. Think of it as a draft, not the final masterpiece. The goal is to validate your assumptions, gather real feedback, and see if people are willing to use (or pay for) your solution.

Remember: speed matters. The sooner you launch, the sooner you learn.

### Step 3: Iterate, Don't Perfect

Your first version won't be flawless — and that's okay. The most successful startups don't waste time perfecting every detail. Instead, they listen to users, gather feedback, fix bugs, and make improvements rapidly. If your idea isn't working, be ready to pivot — change direction based on what you're learning. Iteration is the heartbeat of innovation.

**Examples:** Instagram started as a location check-in app.

Meesho began as a platform for small boutiques, but pivoted to focus on resellers based on user demand



### Step 4: Make it Scalable



To become a unicorn, your solution must scale — it should work not just for 100 people, but for millions across different cities, regions, and backgrounds. This is where technology becomes your engine. Can your app handle millions of users? Can your delivery system work in both Delhi and a small town in Assam? **Scalability means growing without breaking — and growing fast.**

Scalable startups design for growth from the start:

1. Cloud-based tech platforms
2. Automated operations
3. Easily replicable models

### Step 5: Build a High-Performance Team

Your idea is only as strong as the team that builds it. A unicorn founder knows they can't do everything alone. They surround themselves with talent, driven people who bring different strengths — tech, design, marketing, finance, operations. These are not just friends or classmates, but people who believe in the mission and can execute at high levels.

**A great team is diverse in skills but united in purpose.**



### Step 6: Raise Smart Capital

At some point, you'll need funding to grow — but not all money is equal. Smart founders choose investors who bring more than just cash. The right investors open doors, give strategic advice, and support you through tough decisions. Avoid “toxic money” — where control, vision, or values clash.

Before saying yes to funding, ask:

Do they understand my mission?

Will they support long-term impact or push for short-term profits?



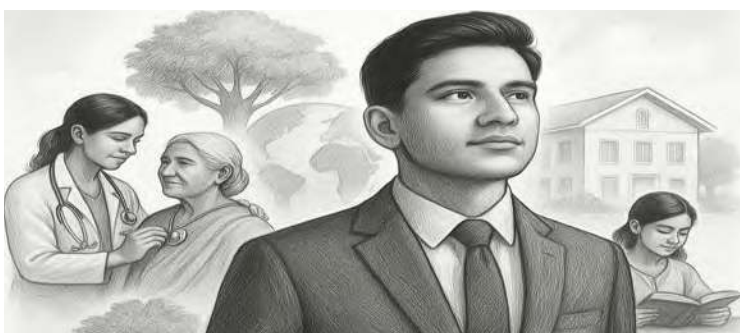
## Step 7: Stay Obsessively Customer-Focused

Every major success story — from Zomato to Netflix — was built on a deep understanding of what customers truly want. Your users are your best teachers. Watch how they use your product. Listen to their pain points. Respect their time and needs. Whether it's a complaint or a compliment, every user interaction is a chance to improve.

**Companies that ignore users fail. Companies that obsess over users grow.**



## Step 8: Focus on Impact, Not Just Valuation



Finally, never forget why you started. The best founders are mission-driven. They aren't chasing billion-dollar valuations — they're chasing solutions that improve lives, protect the environment, or uplift communities. Whether you're making healthcare more affordable, helping farmers access markets, or improving education, your impact is your legacy

**Ask yourself regularly : Fuel Your Entrepreneurial journey**

- ➔ Is my startup making people's lives better?
- ➔ What positive change am I leaving behind?

## Unicorns : Catalysts of the New Economy

Unicorn startups — privately held companies valued at over \$1 billion — are not just symbols of business success or media attention. They play a vital role in driving a nation's economic growth, especially in emerging economies like India.

These startups **bring more than just profits**; they generate employment, foster innovation, strengthen industries, and position the country as a global hub for entrepreneurship. Understanding their economic role is essential to appreciating how your ideas can contribute to India's development story.



## 1. Job Creation at Scale : Opportunities in the Startup Ecosystem

Unicorn startups are massive job creators. Companies like Swiggy, Zepto, Flipkart, and Ola have collectively created employment for lakhs of individuals – not just in urban centers but also in Tier 2 and Tier 3 cities. These jobs span a wide range, from delivery executives and warehouse workers to software engineers, marketing professionals, and data analysts. In a country where youth unemployment is a serious challenge, unicorns help fill this gap by offering both skilled and semi-skilled opportunities. Every successful startup creates a ripple effect – when it grows, so do the businesses and services around it.



## 2. Catalysts of Innovation : Igniting Breakthrough Ideas



Unicorns often emerge by solving existing problems with innovative solutions. For example, Razorpay revolutionized digital payments for small businesses, while PharmEasy made online medicine delivery accessible across India. These startups push traditional industries to adopt new technologies, streamline processes, and improve customer experience. Innovation is a key engine of economic development – it improves efficiency, lowers costs, and creates value. Unicorns help build a culture of experimentation, where risk-taking and creativity are rewarded.

## 3. Attracting Global Investment : Opening the door to Worldwide Capital

India's startup ecosystem has become one of the most attractive destinations for global investors. When unicorns like Nykaa, BOAT, or PhonePe receive international funding, they don't just grow their business – they bring in foreign capital, strengthen India's financial ecosystem, and boost investor confidence in Indian innovation. This flow of capital fuels growth across sectors, encourages more startups, and integrates India into the global economy. In many ways, unicorns serve as ambassadors of India's entrepreneurial potential on the world stage.



## 4. Empowering MSMEs and Local Entrepreneurs : The Backbone of Inclusive Prosperity

Unicorn platforms like Udaan, Meesho, and ElasticRun directly empower micro, small, and medium enterprises (MSMEs) by giving them access to markets, logistics, digital payments, and working capital.

This is especially important in India, where MSMEs form the backbone of the economy but often lack visibility and scalability. These platforms enable local sellers, artisans, and manufacturers — even in remote villages — to compete in national and global markets, increasing their income and boosting rural economies.



## 5. Enhancing Productivity and Economic Efficiency : Keys to Sustainable Growth



Many unicorns improve productivity across industries. For example, Delhivery has transformed logistics and supply chain management, while Nykaa has streamlined beauty and wellness retail through e-commerce.

These improvements reduce costs, save time, and create better services for consumers and businesses alike. When industries become more productive, the economy grows faster and becomes more competitive globally.

## 6. Shaping a New Entrepreneurial Culture : The Future of Innovation

Unicorns also play a symbolic economic role — they inspire the next generation. When students see young founders building billion-dollar companies from humble beginnings, it ignites belief and ambition.

This cultural shift toward entrepreneurship drives more innovation, more startups, and a more resilient and dynamic economy



### Experiential Learning : The Unicorn Lab

**Break into teams and:**

1. Identify a pressing problem (local, national, or global).
2. Brainstorm a scalable business idea to solve it.
3. Create a basic business model:
  - What's the problem?
  - What's your solution?
  - Who is your customer?
  - How will you make money?
  - How can you scale it?
4. Design a name, logo, and 90-second pitch.
5. Present to a panel of peers (or teachers) for feedback.



### Real Talk – Reflection Journal

- » What do I want to change in the world?
- » Why does this problem matter to me?
- » What belief is stopping me from taking the first step?
- » What is one small action I can take this month?

### Final Thought – You Are the Opportunity

You don't have to wait until you finish college, earn an MBA, or turn 30. You don't need millions in funding or a perfect plan to start. What you **do** need is a mindset – a belief that you can start small, learn fast, and grow big. Many of the world's most successful ventures started with just one idea – a simple solution to a real problem. That idea took shape when a group of passionate individuals came together as a team, committed to turning their a vision into action. What made the difference was not resources or connections, but one powerful act of belief – the decision to begin.

As you explore the world of unicorn thinking, remember that boldness is not about having all the answers, but about daring to ask better questions. It's about seeing failure as feedback, setbacks as lessons, and challenges as opportunities to grow. The world's most admired entrepreneurs were once students like you – curious, restless, and full of questions. What set them apart was their willingness to take the first step, to act bravely when it mattered, and to keep going when things got hard.

This chapter isn't just about learning the strategies of successful entrepreneurs – it's an invitation to begin your own journey. Look around you. What bothers you? What excites you? What do you wish was better? That's where your story can begin. The future belongs to those who can think bold, adapt fast, and build with heart. And that journey doesn't start later – it starts now, with you.

India stands at the cusp of a powerful transformation. While engineers, doctors, and IAS officers have long been the backbone of our nation's progress, today's world demands something more – it needs visionaries who can build the new economy. We need young minds who can look at everyday problems and say, "There's a better way to do this – and I can build it." Entrepreneurs are no longer just business people; they are change-makers, innovators, and nation-builders. And the exciting truth is – you can be one of them.

So say it not just with hope, but with conviction:  
**"I will think bold. I will act brave. Tumse ho payega."**

## *Beyond the Basics : Resources for Aspiring Entrepreneurs*

Watch: *Shark Tank India* (Startup pitch fundamentals)

Read: *Stay Hungry Stay Foolish* by Rashmi Bansal

Research: Government startup schemes (Startup India, Atal Incubation Centres)

Explore: [www.startupindia.gov.in](http://www.startupindia.gov.in) | [www.yourstory.com](http://www.yourstory.com) | [www.nsic.co.in](http://www.nsic.co.in)

## *Suggested Project for Assessment:*

Title: *My Billion-Rupee Idea* Duration: 2 weeks Deliverables:

Written business plan (3–5 pages)

Slide deck presentation

Market research (basic)

Mock product demo (optional)

## *Conclusion:*

Unicorn entrepreneurs aren't superheroes. They are students like you – who dared to imagine a better way and took the first step. What sets them apart is not magic, but mindset – the courage to question the ordinary, the curiosity to explore the unknown, and the grit to keep going when things get tough. Every world-changing venture began with a single spark – a dream fueled by belief and action. So as you close this chapter, remember: dreams become ventures, and ventures become revolutions. The journey begins today – with your belief, your ideas, and your willingness to try.



# Visionaries at Work

## Turning Ideas into Impact



### Learning Outcomes



After studying this chapter, learners will be able to:

- ➔ Discuss entrepreneurship as a mindset and mechanism for solving real-world problems.
- ➔ Explore how entrepreneurs take ideas from vision to execution through strategy and innovation.
- ➔ Examine the role of risk, failure, resilience, and purpose in entrepreneurial journeys.
- ➔ Learn from real stories across business and social contexts — in India and globally.
- ➔ Engage in meaningful challenges to activate entrepreneurial thinking and creativity.

### *The Bigger Picture : Entrepreneurship Beyond Business*

What comes to your mind when you hear the word entrepreneur? Perhaps a person in a suit speaking at a startup event, or a person coding in a garage with dreams of becoming the next tech tycoon? While these images are part of the narrative, they barely scratch the surface. Entrepreneurship, at its core, is about much more than starting a company. It is a way of thinking, of living with the belief that problems are not obstacles but opportunities waiting to be explored.

In today's rapidly changing world, entrepreneurs are more than business owners—they are solution-seekers, innovators, and change-makers. They are the individuals who choose not to wait for someone else to take the lead. Instead, they spot what's broken and begin repairing it. This chapter takes you on a journey beyond the buzzwords, deep into the heart of what it truly means to be an entrepreneur in today's society.

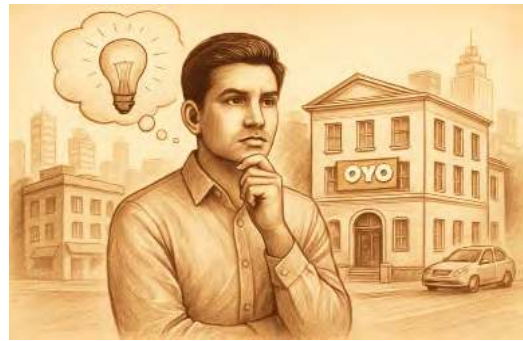
### *What Makes an Entrepreneur : From Vision to Action*

Entrepreneurs aren't born with magical powers or secret formulas. They come from all walks of life. Some may be college dropouts, others highly educated professionals. Some may grow up with resources and mentorship, while others rise from adversity. But what unites them is a mindset—a unique blend of curiosity, courage, and determination.

Let's begin with a simple observation. Walk through any neighborhood in India, and you'll find a young woman managing an online saree business through WhatsApp, a college student repairing phones after class to pay his fees, or a family setting up a food stall at a weekly market. These individuals may not feature on magazine covers, but they're entrepreneurs in every sense of the word. Why? Because they took initiative, solved problems, and created value. Entrepreneurship is not about size. It's about intent.

## The Entrepreneurial Journey of Ritesh Aggarwal : From Startup to Unicorn

He noticed the inconsistency in budget hotel experiences across Indian cities. Instead of complaining, he created a system—OYO Rooms—that standardized services, used technology to scale, and turned his idea into one of the world's largest hospitality chains. His journey began with a single insight: **"There must be a better way."**



### Section 1: Ideas Aren't Rare—Action Is

We all have ideas. You might have thought, "Wouldn't it be easier if my school had a student-led app to track assignments?" or "Why isn't there a healthy snack cart outside metro stations?" But here's the truth, an idea alone isn't entrepreneurship. It becomes entrepreneurship only when you take the leap to act on it.

Ideas are like seeds. They contain the potential for something great. But unless you plant them, water them, and protect them from storms, they'll never grow. This is where entrepreneurs stand apart. They move from dreaming to doing.

Take **Brian Chesky** and **Joe Gebbia**, co-founders of **Airbnb**. They didn't start with a huge budget or a master plan. Facing difficulty paying their rent, they noticed hotels were overbooked during a local conference. So, they placed three air mattresses in their apartment and offered breakfast. That simple experiment eventually became a global travel company that disrupted the hospitality industry.



Likewise, in India, **Mansukhbhai Prajapati** observed that poor rural households didn't have access to electricity-based refrigerators. Using his skills in pottery, he developed **Mitticool**, a clay fridge that works without electricity. His story reminds us: **innovation is not always high-tech**. Sometimes, it is about using what you already have in a better way.

## From Ideas to Impact : Type of Innovation in Entrepreneurship

Not all innovation is about inventing something entirely new. Some of the most powerful entrepreneurial breakthroughs come from tweaking, simplifying or applying known ideas in smarter ways.

## Types of Innovation:

| Type        | What It Means                                          | Indian Example                                                             |
|-------------|--------------------------------------------------------|----------------------------------------------------------------------------|
| Disruptive  | Changes an entire industry, often replacing old models | Ola Electric replacing petrol vehicles                                     |
| Incremental | Improves existing products/services gradually          | Swiggy evolving in to Instamart, Genie                                     |
| Frugal      | Solves problems creatively with minimal resources      | Mitticool Refrigerator (Clay based no Electricity), low-cost sanitary pads |

Great entrepreneurs choose the right type of innovation based on the context and need – not just what looks fancy.

### Section 2 : The Thought Behind the Action – Strategic Thinking

But acting doesn't mean rushing. Behind every successful idea is a thoughtful plan. Entrepreneurs don't just build—they plan, test, and adapt.

This is where strategy comes in. Good entrepreneurs ask themselves:

- Who are my customers?
- What problem am I solving?
- How will I reach my users?
- Can I make this sustainable?



Kunal Shah, founder of Cred, used data and behavioral insights to build a fintech product aimed at a very specific target: creditworthy Indians who rarely got rewarded. Instead of targeting everyone, he narrowed his focus and used elite branding, partnerships, and gamification to build a community.

Strategic planning isn't a luxury—it's essential. Entrepreneurs often use tools like:

- ✓ The Business Model Canvas to visualize customers, value, and cost.
- ✓ The Lean Startup Methodology, which emphasizes building a small version (Minimum Viable Product), getting feedback, and refining it quickly.

Having an idea is exciting. But executing it successfully? That's where most ideas fail. Successful entrepreneurs use a strategic approach.

### The Lean Startup Process: Validated Learning in Action

1. **Build** – Start with a Minimum Viable Product (MVP) – a small version of your idea.
2. **Measure** – Test it with real users and gather feedback.
3. **Learn** – Refine or pivot based on what works and what doesn't.

*“Fail fast, learn faster” is a mantra many modern entrepreneurs swear by.*

### Section 3 : Risk-Taking and Resilience – The Hidden Fuel

There is no innovation without risk. Whether it's quitting a secure job, investing savings into a prototype, or facing public criticism, entrepreneurs constantly walk the edge between success and failure.

But the ability to take risks is not about recklessness—it's about confidence in your vision and the resilience to rise when things don't go your way.

**Kalpana Saroj's** journey is a powerful example. Born into poverty, married at age 12, and later facing discrimination and abuse, she could have given up. Instead, she borrowed a small amount of money, started a tailoring business, and eventually took over **Kamani Tubes**—a company no one wanted to touch. Under her leadership, it became profitable again.



Her success wasn't a result of privilege. It was built on resilience, resourcefulness, and an unshakable belief in herself.

**Failure is not the opposite of success—it is part of it.**

### Section 4 : Entrepreneurship for the Greater Good

Entrepreneurship doesn't always chase profit. Many ventures are born out of compassion and a desire to make the world better.



Social entrepreneurs like **Arunachalam Muruganantham (the Padman of India)** revolutionized access to menstrual hygiene for rural women. He invented a low-cost sanitary pad machine and empowered thousands of women to run small businesses around it. His reward? Not billions, but dignity for millions.

This is purpose-driven entrepreneurship, where value is created not just for customers, but for communities, the environment, and future generations.

Today, when students build apps to support mental health or launch awareness campaigns on menstrual equity or plastic pollution, they are also entrepreneurs—because they are using innovation to solve real-world problems.

## Section 5 : The Power of Mindset

Let's stop for a moment and ask: what truly separates successful entrepreneurs from others?

It's not intelligence. It's not funding. It's not even experience.

It's Attitude.

Entrepreneurs think in a way that challenges assumptions, embraces discomfort, and believes in action. They are not afraid to stand alone, fail, or be misunderstood.

Even in fields outside business, this mindset matters.

Take **Chitra Gupta**, principal of **Sarvodaya Kanya Vidyalaya** in Old Delhi. When she took charge, the school was struggling—low attendance, poverty, social resistance. But she didn't wait for change. She became the change.

She reached out to parents, partnered with health centres, and fought deep-rooted cultural beliefs. Today, her school boasts 100% pass results, national awards, and students who dream fearlessly. That is what entrepreneurial Attitude looks like in education.



### Integrated Activities (Embedded in Learning Flow)

#### Activity 1

##### *Entrepreneur Avatar : Crafting your Business Person*

Create your entrepreneur persona. Give them a name, mission, superpower, and weakness. Are they a Green Tech Guru? A Community Builder? A Frugal Inventor? Share in class.



#### Activity 2

##### *Idea to Impact Challenge : Turning Vision into Reality*

In groups, select a social problem in your school or city. Brainstorm a solution. Build a pitch (poster or 2-minute talk). Vote on the most feasible and impactful idea.



## Wrapping Up: Key take aways and Insights

### What's Your First Step?

Entrepreneurship isn't a destination. It's a way of walking through life—curious, bold, persistent. Whether or not you start a company, the entrepreneurial spirit will help you thrive in any field. You now know that entrepreneurship means:

- Noticing problems others ignore.
- Taking action, even when the outcome is uncertain.
- Taking action, even when the outcome is uncertain.
- Planning with strategy and learning through feedback.
- Falling down, getting up, and trying again.
- Choosing purpose over perfection.

The world needs creators, not just consumers. It needs builders, not just followers. It needs someone to fix, rethink, and reimagine. Could that someone be you?

### Reflective Questions:

1. What's a problem you've experienced that you wish someone would solve?
2. What resources or people around you could help you begin working on that idea?
3. How would you feel if your solution improved even one person's life?

# 3

## The Entrepreneurial Perspective – Thinking Beyond Limits



### Learning Outcomes:



After studying this chapter, learners will be able to:

- ➔ Develop an advanced understanding of the entrepreneurial mindset and its role in personal and professional success.
- ➔ Analyze real-world entrepreneurial stories that demonstrate adaptability, resilience, and innovation.
- ➔ Find the difference between fixed and growth mindsets and how to reprogram limiting beliefs.
- ➔ Apply entrepreneurial thinking in diverse life contexts—education, work, and community.
- ➔ Practice daily habits that build creativity, problem-solving, and initiative.
- ➔ Reflect deeply on one's own mindset and take actionable steps toward entrepreneurial growth.

### More Than a Business Plan : The Heart of Entrepreneurial Vision

What if we told you entrepreneurship isn't only about launching companies or pitching investors? That it doesn't always involve billion-dollar ideas or apps that change the world? In reality, entrepreneurship is about how you think, how you act, and how you turn problems into possibilities. It's an attitude. And once you develop this attitude, you can apply it in school, at home, in your community, or someday in your business.

This segment explores the journey of thinking like an entrepreneur—a deeper, more reflective process that transforms ordinary individuals into **extraordinary changemakers**. By building on the foundations of curiosity, resilience, and initiative, students will be able to scale their learning to tackle real-world challenges with entrepreneurial tools and habits.



## Section 1: Mindset Before Method

Every successful entrepreneur begins not with money or a brilliant product but with a powerful mindset. This mindset includes curiosity, resilience, creativity, and an unwavering belief in growth. The difference between someone who walks away from a challenge and someone who builds a solution often lies in how they think.

Thinking like an entrepreneur means developing a lens that sees opportunities even in moments of failure or discomfort. It means pushing past fear and discomfort to create something valuable. As students move from adolescence into adulthood, this mindset becomes more critical—not just to build businesses, but to build character and purpose.

### Case in Point : Jan Koum and WhatsApp

Jan Koum, co-founder of WhatsApp, began life in poverty. He created an app originally meant for sharing statuses. It didn't work well at first. But Koum was resilient and observant. When push notifications became available on smartphones, he saw a new way to use the app ; as an instant messaging tool. WhatsApp eventually became the world's most used messaging platform.



His success wasn't just the app—it was his mindset: adaptability, simplicity, listening to users, and the courage to keep going despite early rejection.

**"Change your mindset, and you change your outcomes." — William James**

## Section 2: Growth Mindset vs. Fixed Mindset

The journey to an entrepreneurial mindset begins with a deeper understanding of how we think. Psychologist Carol Dweck introduced the concept of growth vs. fixed mindset, which is crucial in shaping how individuals handle challenges, learning, and success.

A fixed mindset limits potential. It tells you that your intelligence, creativity, or leadership is fixed. But a growth mindset opens doors. It says you can improve through effort, strategy, and reflection. Entrepreneurs succeed because they embrace growth.

In the movie *12th Fail*: Manoj Kumar Sharma fails in school. But instead of quitting, he starts over, studies hard, adapts his methods, and eventually cracks the UPSC exam. He didn't believe intelligence was fixed. He believed in his ability to learn.

| <i>Aspect</i>                     | <i>Fixed Mindset</i>                                            | <i>Growth Mindset</i>                                                   |
|-----------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------|
| Core Belief                       | Intelligence and abilities are static and cannot change         | Intelligence and abilities can be developed through effort and learning |
| Response to Challenges            | Avoids challenges; gives up easily                              | Embraces challenges; persists despite setbacks                          |
| View of Effort                    | Sees effort as fruitless, unnecessary, or a sign of low ability | Believes effort is essential for mastery and improvement                |
| Response to Failure               | Sees failure as proof of lack of ability; feels discouraged     | Views failure as an opportunity to learn and grow                       |
| Reaction to Feedback              | Ignores or takes feedback as personal criticism                 | Welcomes feedback as a tool for learning and self-improvement           |
| Attitude toward Success of Others | Feels threatened or envious by others' success                  | Finds inspiration and lessons in the success of others                  |
| Examples/Behaviors                | Gives up when faced with obstacles; avoids risk; hides flaws    | Tries new strategies; learns from criticism; persists and adapts        |

In entrepreneurship, where setbacks are inevitable, a growth mindset is your anchor.

### *Section 3: Reprogramming Your Mind*

We aren't born with our mindsets—we learn them. As children, we absorb messages from parents, teachers, society, and experiences. These form the scripts that guide our decisions as adults.

To think like an entrepreneur, we must first challenge and rewrite these inner scripts.

### *The 4-Step Mindset Reset*

- 1. Awareness:** Identify limiting beliefs.
- 2. Understanding:** Ask how they shaped your life.
- 3. Dissociation:** Choose to release them.
- 4. Affirmation:** Replace them with growth beliefs.

### *Perception*

**Old belief:** "I'm not good at leadership." | **New belief:** "I can grow into an effective leader by practicing."

### *Activity 1*

#### *Objective:*

Help students identify their own limiting beliefs and practice replacing them with growth-oriented affirmations to build a resilient entrepreneurial mindset.



### ***Materials Needed:***

- ➔ Journals or notebooks
- ➔ Pens or pencils
- ➔ Whiteboard or chart paper
- ➔ Markers

### ***Step-by-step instructions:***

#### **1. Warm-Up Discussion :**

Begin with a group discussion about mindset. Ask students:

- What is a “limiting belief”?
- Can you think of any beliefs that have stopped you from trying something new?
- Why might these beliefs hold us back?

#### **2. Individual Reflection:**

Ask students to write down 2 or 3 limiting beliefs they think they might hold about themselves. Examples:

- “I’m not creative.”
- “I’m bad at public speaking.”
- “I can’t start a business because I’m too young.”

#### **3. Group Sharing:**

Invite volunteers to share their beliefs and discuss common themes. This helps to normalize that everyone has limiting beliefs

#### **4. Reprogramming Exercise :**

Introduce the 4-Step Mindset Reset: Awareness, Understanding, Dissociation, Affirmation.

For each limiting belief, guide students to:

- Understand how this belief has held them back
- Imagine letting it go.
- Write a positive, growth mindset affirmation to replace it. For example:
- Old belief: “I’m not creative.”
- New belief: “Creativity grows when I practice and explore new ideas.”

## 5. Affirmation Sharing and Visualization :

Students can share their new affirmations aloud and create a small personal visual reminder—like a sticky note or a drawing—to keep with them as encouragement.

## 6. Closing Reflection :

Ask students to reflect on how changing their mindset could impact their goals and daily actions.

This process isn't instant. But over time, it shifts how you see yourself and your potential.

### Section 4: Entrepreneurial Thinking Everywhere

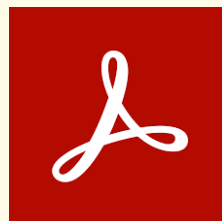
Entrepreneurship is not a job description. It is a mindset you can apply in any domain of life. Whether you're an employee, a student, or a homemaker, the ability to think like an entrepreneur can transform your outcomes.

**At Work:** Adobe's "Kickbox" program empowers every employee to innovate without permission. It sends a message: ideas matter more than rank.

**At School:** Fred Smith submitted a college paper describing an overnight delivery service. His professor wasn't impressed. But that paper became FedEx.

**At Home:** Krishna Yadav started with no resources. By making and selling pickles, she built a thriving enterprise that supports 100+ women.

These stories show that entrepreneurial thinking is a bridge—from where you are to where you want to be.



### Section 5: Daily Practices for Big Thinking

Great entrepreneurs are not born—they build themselves. One daily decision at a time.

To build your entrepreneurial mindset, adopt simple, repeatable habits:

- ➔ Ask Better Questions: Shift from "Why me?" to "What can I change?"
- ➔ Take Micro-Risks: Speak up. Start small. Test.
- ➔ Keep a Problem Journal: Every day, write down one frustration and a possible solution.

Celebrate Attempts: Honor effort, not just outcomes.

**Reflection :** What small risk did you take this week?

Over time, these practices build confidence and clarity—essential traits for entrepreneurial leaders.

## Activity 2



### *Problem Journal Challenge — From Observation to Innovation*

#### *Objective:*

Encourage students to develop the habit of identifying problems and thinking of creative solutions using entrepreneurial thinking daily.

#### **Materials Needed:**

Small notebooks or digital notes app

Pens or pencils

#### *Step-by-step instructions:*

##### **1. Introduction:**

Explain the importance of observing problems as the first step toward innovation. Share an example story—such as how Jan Koum noticed a gap in messaging apps and created WhatsApp.

##### **2. Problem Journal Setup :**

Each student gets a journal or opens a notes app dedicated to this activity.

##### **3. Daily Problem Logging :**

**Challenge students to spend 5 minutes each day writing down:**

- One problem they noticed in their daily life (school, home, community).
- One possible solution or idea to address the problem — no matter how simple or outlandish.

##### **4. Group Discussion:**

In small groups, students share their most interesting problem and solution. Discuss:

- What made the problem important?
- How creative or feasible is the solution?
- How could this idea be improved or tested?

##### **5. Extension: Prototype or Pitch :**

Select 1-2 ideas from each group to develop further—by sketching, making a small model, or preparing a short pitch.

##### **6. Reflection:**

Ask students how this daily habit changed their view of their environment and their own ability to create change

## Section 5: Daily Practices for Big Thinking

The entrepreneurial mindset is not about perfection. It's about passion, initiative, and forward motion.

Groww's journey is a compelling success story in the India Fintech Landscape, driven by its mission to democratize investing and make it simple, accessible and transparent for everyone especially for young millennials and Gen Z.

Whether you're a delivery driver, student, or assistant, what matters most is not your title but your ability to act with ownership, creativity, and curiosity.



## Conclusion:

### *Build Your Entrepreneurial Life*

Entrepreneurial thinking transforms your life. You start to see obstacles as projects. You take ownership of your growth. You act before you're ready, and you find meaning in solving problems.

This mindset matters in school, in startups, in society. It turns you from a bystander into a builder.

So ask yourself today: What problem can I solve with what I already know? What can I build, no matter how small?

Because entrepreneurship is not about scale. It's about starting.

### **Wrapping up: Reflection Questions**

1. What belief about yourself do you want to rewrite?
2. How have you used entrepreneurial thinking in your everyday life?
3. What problem in your school or community could be your first innovation challenge?

# 4

## Design Thinking



### Learning Outcomes:



After studying this chapter, learners will be able to:

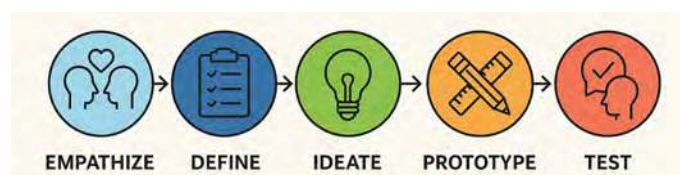
- ➔ Identify and describe the five core stages of the Design Thinking process—Empathize, Define, Ideate, Prototype, and Test.
- ➔ Explain the importance of adopting a human-centered approach in addressing real-world challenges.
- ➔ Evaluate solutions critically by analyzing feedback to identify strengths and areas for improvement.
- ➔ Develop and present simple, low-fidelity prototypes (such as sketches, role-plays, or paper models) that represent their proposed solutions.
- ➔ Apply the Design Thinking cycle iteratively to design meaningful solutions for community-based or real-life problems, demonstrating creativity and empathy at each stage.

### 4.1 Starting the Design Thinking journey

This is the beginning of an exciting journey where you will learn how to solve real-world problems by thinking creatively and collaboratively. Design Thinking is more than just a process—it's a mindset that encourages you to look at challenges from different angles, empathize with others, and come up with innovative solutions that make a difference. Over the next several



activities, you will explore the five key steps of Design Thinking: Empathize, Define, Ideate, Prototype, and Test. These steps will guide you through the process of understanding problems deeply, generating ideas, and creating solutions that work in real life. Let's take a quick look at what each of these steps involves:



1. **Empathize:** This step is all about understanding the people who are affected by the problem. You'll step into their shoes and see the world from their perspective. You'll ask questions, observe, and listen to their stories to get a clear sense of their needs and challenges.

2. **Define:** After gathering information in the Empathize phase, you'll use that data to define the problem clearly. What are the specific issues people are facing? What are the root causes? In this step, you will focus on narrowing down the problem so that you can come up with targeted solutions.
3. **Ideate:** Now it's time to get creative! In the Ideate phase, you'll brainstorm as many ideas as possible to solve the problem you've defined. Remember, no idea is too wild or impossible at this stage—the goal is to push the limits of your imagination and think outside the box.
4. **Prototype:** Once you have a range of ideas, you'll start building simple models or representations of your solutions. These prototypes could be anything from drawings and models to digital simulations. The aim is to turn your ideas into tangible things that you can test and improve.
5. **Test:** Finally, you'll take your prototypes and test them in the real world. This is where you'll get feedback, see what works, and figure out what needs improvement. Testing allows you to refine your solutions, making them even better.



## Choosing Your Problem Context

As you begin this journey, the first thing you'll do is choose a problem or context that you care about. This could be something from your school, your community, or even a global challenge that impacts many people. Think about issues that matter to you, and where you believe change is needed. Once you've identified your problem, you'll apply the Design Thinking steps to solve it. As you move through each phase, you'll learn different methods and tools to help you along the way.

From conducting interviews in the **Empathize** stage to sketching ideas in **Ideate** and building real models in **Prototype**, every step will be a hands-on experience. This workbook is designed to guide you, But remember: **Design Thinking is a flexible process**. There are no right or wrong answers, only opportunities to learn, iterate, and improve your ideas. Your creativity, curiosity, and willingness to try new things will be the keys to success. Let's get started on this exciting journey toward becoming problem-solvers and innovators!

## Identifying problem contexts around us

Now that you're ready to start your Design Thinking journey, the next step is to identify a problem context—an issue or challenge that you want to address. Think of the world around you—your school, your neighborhood, your city, or even the world at large. Everywhere, people face different types of challenges, and as a designer, your task is to find a problem that resonates with you.



This is the starting point of every great innovation: the recognition that something could be improved. Look for areas where people experience difficulties. You could observe situations where resources are not used efficiently, where systems or processes could be better, or where people's needs aren't being met. The problems you choose don't have to be large or complicated. In fact, even simple challenges can lead to meaningful solutions.

## Examples of Problem Contexts to Explore

To help you think about potential problem contexts, here are some examples of challenges you might consider:

### 1. School Environment

**Classroom Layout:** Are the desks and chairs arranged in a way that helps students learn? Could the setup be more inclusive or collaborative?

**Waste Management:** How is waste (like paper or plastic) handled in your school?

Could there be better systems for recycling or reducing waste?



### 2. Community and Public Spaces

**Playground Safety:** Is there a way to improve the safety or accessibility of playgrounds for children in your community?

**Transportation:** Are there traffic issues in your area that cause delays or danger? Could public transportation be improved?

**Public Cleanliness:** Is litter a problem in your neighbourhood? How could you encourage people to keep public spaces clean?

### 3. Global and Environmental Issues

**Plastic Pollution:** Could you design a product or system that helps reduce plastic waste in oceans or landfills?

**Access to Clean Water:** How might you help communities that struggle to access clean drinking water?

**Climate Change Awareness:** Can you come up with ways to help people understand and take action against climate change?



### 4. Health and Well-being

**Mental Health Support:** Is there a need for better mental health resources for students or young people? What kinds of solutions could make it easier for them to get help?

**Healthy Eating:** Are there problems related to unhealthy eating habits? How could you encourage healthier food choices in schools or homes?

**Physical Activity:** Could you create a way to motivate people to be more physically active, especially if they lead sedentary lives?

## 5. Technology and Accessibility

**Digital Learning Tools:** How can online learning platforms be made more engaging or accessible for students who struggle with traditional teaching methods?

**Access to Technology:** Could you design a system to help students who don't have easy access to technology, such as laptops or the internet?



Each of these problem contexts offers a unique challenge and an opportunity to make a positive impact. As you choose your context, think about what excites you and what you'd like to see changed. The goal is to choose a problem that feels meaningful and achievable—something that you can explore deeply and design a solution for.

Once you've selected your problem context, you'll be ready to apply the Design Thinking process to create innovative solutions. Let your curiosity guide you, and remember that the best problems are often the ones that affect you or the people around you in a personal way.

*Understanding each Design Thinking steps in detail & applying it on selected problem context step wise.*

### 1. Empathize:

**Why It's Required:** The Empathy phase is essential because it helps you to understand the people you are designing for. You can't solve a problem without first seeing it from the perspective of those affected. This step allows you to gain insight into their needs, emotions, and the challenges they face. By empathizing, you uncover critical information that will help you create solutions that are meaningful and impactful.

**How It's Done (Methods):** To effectively empathize with users, you can use several methods to gather insights about their experiences and challenges:

- **Observation:** Watch how people interact with their environment or deal with problems. Look for patterns or behaviors that tell you about their needs.
- **Interviews:** Talk to the people who are directly affected by the problem. Ask open-ended questions to learn about their experiences, struggles, and desires.
- **Surveys and Questionnaires:** Use structured questions to gather data from a larger group of people. This can give you both quantitative and qualitative insights.
- **Immersive Experiences:** Put yourself in the shoes of your users. For example, if you're designing for people with mobility challenges, try navigating public spaces using a wheelchair.

#### Workbook Activity: Applying Empathy Techniques

**Objective:** Use empathy techniques to better understand your problem context and the people it affects.

#### Step 1: Identify your user group

Who are the people affected by the problem you've chosen? Write down key details such as their age group, lifestyle, and daily challenges.

### **Step 2: Choose an empathy method**

Choose one or more empathy techniques: Observation, Interview, or Survey/Questionnaire. Write down why you've chosen this method.

### **Step 3: Apply your method**

- If you're doing Observation, spend some time watching how people deal with the problem in real life. Write down what you observed.
- If you're doing Interviews, list 3-5 key questions you'll ask people. Afterward, summarize their responses.
- If you're using a Survey or Questionnaire, create 5-7 questions that explore the issue. Collect responses and analyze the results.

### **Step 4: Reflect on what you learned**

How did the empathy method help you understand your users' needs? Write a short reflection (3-5 sentences) on your key takeaways.

## **2. Define:**

**Why It's Required:** The Define stage is crucial because it helps you narrow down the broad understanding you've gained in the Empathize phase. Here, you focus on clearly articulating the core problem. Defining the problem correctly is half the solution—it sets the stage for targeted ideation and problem-solving later on.

### **How It's Done (Methods):**

Several methods can be used to define the problem effectively:

- **Point of View (POV) Statement:** Summarize the user's needs and the insights you've gained into a single, actionable statement. This POV will guide your solution.
- **Problem Framing:** Reframe the problem to get to its root cause, ensuring that you focus on the underlying issues rather than just symptoms.
- **User Personas:** Create detailed descriptions of the typical users, including their needs, frustrations, and goals, which helps to keep the focus on real people.
- **Insight Clustering:** Organize the data and insights from the Empathy phase into meaningful groups, identifying patterns that can help clarify the problem.

### **Workbook Activity: Defining the Problem**

**Objective:** Narrow down your problem context into a clear, actionable statement.

### **Step 1: Create a Point of View (POV) Statement**

Who is your user? What is their need? Write your POV statement: “[User] needs [need] because [insight].”

### **Step 2: Frame the Problem**

Reframe the problem based on the empathy work you’ve done. Is the issue larger or smaller than you originally thought? What’s the core problem behind the symptoms you observed?

### **Step 3: Create a User Persona**

Build a simple user persona based on the interviews or observations you’ve conducted. Include the user’s name, age, occupation, and key challenges.

### **Step 4: Reflect on your Problem Statement**

Write down your final problem statement. What specific issue will you be solving?

## **3. Ideate:**

**Why It’s Required:** Ideation is necessary because it allows you to generate a wide range of ideas and solutions. This step is about pushing the boundaries of your thinking, avoiding the trap of settling on the first idea that comes to mind. The more ideas you generate, the more potential solutions you have to explore, refine, and develop.

### **How It’s Done (Methods):**

Here are some common ideation techniques:

- **Brainstorming:** Get creative! Write down as many ideas as possible without judging or filtering them. Aim for quantity, not quality.
- **Mind Mapping:** Create a visual map of your ideas, starting with the problem in the center and branching out with possible solutions.
- **SCAMPER:** A structured brainstorming method where you ask: Can I Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, or Reverse the idea?
- **Brainwriting:** Instead of verbal brainstorming, everyone writes down their ideas individually, which can lead to more diverse and less biased suggestions.

### **Workbook Activity: Generating Ideas**

**Objective:** Generate a range of creative solutions for your problem statement.

#### **Step 1: Brainstorm**

Set a timer for 10 minutes and list as many solutions to your problem as possible. Don’t hold back—write down anything that comes to mind, no matter how wild or impossible it seems.

#### **Step 2: Mind Map**

Take your problem and write it in the center of a page. Draw lines branching out to different ideas and build on each one. Try to generate at least 10 branches from the central problem.

### **Step 3: SCAMPER**

Choose one of your ideas and apply the SCAMPER method. Can you modify or adapt it in any way to improve the solution?

### **Step 4: Choose Your Best Ideas**

Look at all the ideas you've generated. Which ones seem the most promising? Circle your top three ideas to develop further.

## **4. Prototype:**

**Why It's Required:** Prototyping is essential because it allows you to bring your ideas to life in a tangible form. By creating a simple version of your solution, you can test and explore how it works in the real world. Prototyping helps you identify potential problems and opportunities for improvement before investing too much time and resources in development.

### **How It's Done (Methods):**

Several methods exist for creating prototypes:

- **Sketching:** Draw a basic representation of your solution. This could be a product design, a layout, or a flowchart of a system.
- **Modeling:** Create a physical model using materials like cardboard, clay, or everyday objects.
- **Wireframing:** If your solution is digital, create a wireframe or mock-up of the interface.
- **Storyboarding:** Draw a sequence of events that shows how a user would interact with your solution.

### **Workbook Activity: Building a Prototype**

**Objective:** Create a simple, tangible prototype of your solution.

### **Step 1: Sketch your Idea**

Create a detailed sketch of your idea. Include labels to explain how it works.

### **Step 2: Build a Simple Model**

Using available materials (paper, cardboard, or clay), create a basic model of your solution. It doesn't need to be perfect—focus on capturing the core idea.

### **Step 3: Test it Out**

Show your prototype to at least one person and ask them for feedback. What works? What could be improved? Write down their thoughts.

### **Step 4: Reflect**

What did you learn from building and testing your prototype? How would you improve your solution based on this experience?

## 5. Test:

**Why It's Required:** Testing is crucial because it allows you to gather feedback and refine your solution before finalizing it. Testing helps ensure that your solution meets the users' needs and functions as intended. It also reveals any potential issues that you might not have considered during the design phase.

### How It's Done (Methods):

Some common methods for testing include:

- User Testing: Have real users interact with your prototype and observe their reactions.
- Surveys/Interviews: After users interact with your prototype, ask them for detailed feedback.
- A/B Testing: If you have multiple versions of your solution, test them with users to see which performs better.
- Iterative Testing: Repeat the testing process multiple times, refining your prototype after each round based on user feedback.

### Workbook Activity: Testing Your Prototype

**Objective:** Test your prototype with users and gather feedback to refine your solution.

#### Step 1: Test your Prototype with Users

Identify 2-3 people who represent your target users. Ask them to use or interact with your prototype. Pay close attention to how they use it, what steps they take, and any difficulties or confusion they experience. Take notes on their actions and reactions.

#### Step 2: Gather Feedback

After the users have interacted with your prototype, ask them a few key questions to gather detailed feedback.

Use questions like:

- What did you like about the prototype?
- What challenges or difficulties did you encounter while using it?
- How could this solution be improved to better meet your needs?

Write down their responses, noting any common themes or recurring suggestions.

#### Step 3: Analyze the Results

Review the feedback you've gathered. Were there any patterns in what the users liked or found challenging? Did more than one person point out the same issue?

Write a brief analysis (3-5 sentences) summarizing the most important insights from the feedback.

#### Step 4: Iterate and Improve

Based on the feedback, make improvements to your prototype. Write down the changes you plan to make and explain how each change will address the issues raised during testing.

### ***Step 5: Reflect on the Testing Process***

How did testing your prototype help you improve your solution? Did any surprising insights emerge? Write a short reflection (3-5 sentences) on what you learned during this testing phase and how it will shape your final design.

After completing the workbook activities for the Test stage, you must engage with the feedback loop, refine your solutions, and reflect on the testing process.

Certainly! I will add a 6th step, Implement, to the Design Thinking process. Here's the content for this step, following the same structure as the previous ones:

## ***6. Implement***

**Why It's Required:** The Implementation phase is where your design moves from concept to reality. After testing and refining your solution, the final step is to execute it in the real world. This stage is crucial because it allows your solution to make an actual impact. It's not enough to come up with a great idea—you must ensure that it can be successfully applied and sustained in the intended environment. Implementation involves putting your solution into action, monitoring its success, and making adjustments as needed to ensure long-term effectiveness.

### **How It's Done (Methods):**

To successfully implement a solution, you need to consider several important aspects:

- **Pilot Testing:** Start by rolling out your solution on a small scale to test its effectiveness in a real-world setting. This allows you to gather additional feedback and make adjustments before scaling up.
- **Planning and Scheduling:** Create a clear plan for how and when the solution will be implemented. This includes timelines, roles, and resources needed for execution.
- **Resource Allocation:** Identify what resources (e.g., materials, people, technology) are needed to successfully implement the solution.
- **Feedback Loops:** Even after implementation, it's important to continue gathering feedback to improve and sustain the solution. Ongoing evaluation ensures that your solution continues to meet users' needs over time.

### **Workbook Activity: Implementing Your Solution**

**Objective:** Plan and execute the implementation of your solution in the real world.

#### ***Step 1: Create an Implementation Plan***

Write down the specific steps you need to take to implement your solution. Consider factors such as:

- ➔ Who will be involved?
- ➔ What materials or resources do you need?
- ➔ What are the key milestones or deadlines?



*"To implement my solution to reduce school waste, I will first meet with the school administration to present the recycling program. Next, I will organize a student volunteer team and place recycling bins in key locations."*

### Step 2: Pilot Test your Solution

Before full-scale implementation, try a smaller version of your solution. If you're introducing a new system, tool, or process, test it with a smaller group of users. Write down what you hope to learn from this pilot test and how you will measure its success.

### Step 3: Monitor the Implementation

As you implement your solution, keep track of its progress. Are there any challenges you didn't anticipate? Write down what's working well and what isn't. Make note of any additional changes or adjustments you need to make as you go.

### Step 4: Gather Feedback

Continue gathering feedback from users during the implementation process. Ask users:

- ➔ How well is the solution working in practice?
- ➔ Are there any issues or improvements needed?

Summarize the feedback you receive and note any changes you plan to make based on it.

### Step 5: Reflect on the Implementation

Write a short reflection (3-5 sentences) on your experience with implementing the solution. What did you learn? How did it feel to see your idea come to life? What could you do next to ensure the solution continues to be effective over time?

The Implement phase completes the Design Thinking process, ensuring that you should not only design but also apply and sustain your solutions in the real world. This step actually encourages us to think practically about making an actual difference with our ideas.

## Problem-Solution Examples



### Problem 1- School Environment

**Waste Management:** How is waste (like paper or plastic) handled in your school? Could there be better systems for recycling or reducing waste?

#### Empathize

To understand the challenges faced in waste management at school, Conduct informal observations and discussions with students, teachers, and staff.

## Key Insights:

### 1. Students:

- ➔ Lack of awareness about proper waste segregation.
- ➔ Many feel recycling is confusing or not accessible.
- ➔ No clear incentives to recycle or reduce waste.

### 2. Teachers:

- ➔ Concerned about paper waste from worksheets and classroom supplies.
- ➔ Limited tools to encourage students to participate in waste management.

### 3. Support Staff:

- ➔ Struggle to manage mixed waste due to improper segregation by students.
- ➔ Lack of proper labeling on bins causes confusion.

#### Challenges Identified:

- ➔ Lack of awareness and engagement among students.
- ➔ Absence of clearly labeled and strategically placed recycling bins.
- ➔ Paper and plastic waste are not segregated effectively.
- ➔ There are no incentives or campaigns to motivate participation.

## Define

The specific problem to solve is:

“How can we encourage students, teachers, and staff to reduce waste and segregate recyclable materials effectively, in a way that is engaging, practical, and easy to implement?”

## Ideate

### 1. Color-Coded Recycling Stations:

- ➔ Set up well-labeled bins with distinct colors for paper, plastic, and general waste in classrooms, hallways, and cafeterias.

### 2. “Green Points” Reward System:

- ➔ Students earn points for recycling and waste reduction activities (e.g., segregating waste properly, reducing paper usage). Points can be redeemed for rewards like extra library time, certificates, or small prizes.

### 3. Awareness Campaign - “Waste Warriors”:

- ➔ A student-led group to create posters, presentations, and fun challenges to educate peers about recycling and waste reduction.

### 4. Recycling Art Corner:

- ➔ Encourage students to create artwork or functional items (e.g., pen holders, decorations) using waste materials like paper and plastic.

### 5. Digital Submissions for Assignments:

- ➔ Reduce paper waste by promoting the use of digital platforms for assignments and tests.

### 6. Compost for Cafeteria Waste:

- ➔ Introduce compost bins for organic waste generated in the school cafeteria.

## Prototype

#### 1. Set Up Color-Coded Recycling Bins:

- ➔ Bins in key areas: classrooms, cafeteria, and hallways.
- ➔ Labels and visual cues (pictures/icons for younger students).

#### 2. Launch the “Green Points” Reward System:

- ➔ Points awarded when students:
- ➔ Use recycling bins correctly.
- ➔ Reduce paper usage by submitting digital work.
- ➔ Participate in waste awareness activities.

#### 3. Start a “Waste Warriors” Club:

- ➔ A group of enthusiastic students who will lead:
- ➔ Posters and campaigns to educate peers.
- ➔ Fun challenges like “Reduce Your Waste Week.”

#### 4. Monthly Awareness Activities:

- ➔ Recycling art competitions, workshops, and “spot the waste hero” rewards for consistent participation.

## Test

### To test the solution:

#### 1. Implement a pilot program in one or two grades for a month:

- ➔ Place labeled bins in classrooms and cafeteria.

- ➔ Track waste segregation progress (e.g., using support staff feedback).
- ➔ Run awareness sessions and reward the most engaged class.

## 2. Gather feedback from:

- ➔ Students: Are the bins easy to use? Do rewards motivate them?
- ➔ Teachers: Is it manageable within the school day?
- ➔ Support Staff: Has waste segregation improved?

## 3. Monitor progress:

- ➔ Measure reduction in mixed waste through visual inspection or weight tracking.

### *Implement*

1. Approval and Budget: Present the plan to school authorities for approval and small funds (e.g., for bins, posters, and rewards).
2. Phased Roll-Out: Start with younger grades and expand to the whole school after successful testing.
3. Student Involvement: Waste Warriors club to lead awareness campaigns and monitor progress.
4. Rewards and Recognition: Celebrate achievements monthly to keep students engaged.

## *Problem 2: Community & Public spaces*

Transportation: Are there traffic issues in your area that cause delays or danger? Could public transportation be improved?

### *Empathize*

## 1. Identify Transportation Challenges

In my city, traffic congestion during peak hours causes major delays, stress, and environmental pollution. The main issues include:

- ➔ Overcrowded roads due to the increasing number of personal vehicles.
- ➔ Inefficient public transportation systems (buses running late or not matching demand).
- ➔ Lack of safe cycling paths and pedestrian-friendly infrastructure.

## 2. Observations and Interviews

- ➔ Observed long lines of cars during morning and evening hours.
- ➔ Interviewed students, parents, and office-goers to understand their daily struggles:
- ➔ Students complained about being late for school because buses are unreliable.
- ➔ Parents said they prefer personal vehicles due to poor public transport.
- ➔ Workers noted frustration due to traffic delays affecting productivity.

- ➔ Key takeaway: Public transport is underused because it is inconvenient, while personal vehicles add to congestion and pollution.

## *Define*

Problem Statement: “The lack of efficient and sustainable public transport options leads to increased use of personal vehicles, causing severe traffic congestion, delays, and environmental pollution during peak hours.”

### **Impact on Daily Life:**

- ➔ Students arrive late for school or tuition, disrupting learning schedules.
- ➔ Office-goers waste valuable time in traffic, increasing stress and reducing productivity.
- ➔ Rising pollution levels affect health and contribute to climate change.

## *Ideate*

Here are practical, sustainable, and creative ideas to solve the problem:

### **1. Smart Bus Systems**

- ➔ Introduce more frequent buses during peak hours with real-time tracking apps to improve reliability.
- ➔ Implement dedicated bus lanes to bypass traffic.

### **2. Carpooling Initiatives**

- ➔ Develop an app or school-based system to encourage carpooling among students and office workers.
- ➔ Reward carpoolers with incentives like parking discounts.

### **3. Promote Cycling and Walking**

- ➔ Create safe cycling lanes and pedestrian-friendly sidewalks.
- ➔ Set up a bike rental system near schools, colleges, and offices.

### **4. Electric Shuttle Services**

- ➔ Launch small electric shuttle vehicles on fixed short routes for students and local commuters

### **5. Awareness Campaigns**

- ➔ Promote public transport use and sustainable travel through community workshops and social media campaigns.

## *Prototype*

### **Chosen Solutions:**

#### **1. Smart Bus System:**

➤ **Sketch:**

- ➔ Dedicated bus lanes clearly marked on major roads.
- ➔ App interface showing bus arrival times, routes, and capacity.

➤ **Features:**

- ➔ Sensors installed on buses to provide real-time updates.
- ➔ Increased bus frequency during peak hours (every 5-10 minutes).

## 2. Carpooling System:

➤ **Sketch:**

- ➔ Mobile app interface to match users with similar routes and schedules.

➤ **Features:**

- ➔ Input school/office locations, timings, and find compatible carpool partners.
- ➔ Rewards like fuel vouchers or free parking for regular users.

### *Test*

#### **Feedback on Prototypes:**

- ➔ Conducted a survey with students, parents, and office workers:
- ➔ 80% found the bus system with real-time tracking highly beneficial.
- ➔ 65% were willing to try carpooling if rewards or incentives were provided.

#### **Effectiveness:**

- ➔ Reduced travel time by up to 30% with buses using dedicated lanes.
- ➔ Increased willingness to use public transport with improved reliability.

#### **Challenges:**

- ➔ Some concerns about the cost of implementing dedicated bus lanes and ensuring app usability.

### *Implement*

#### **Realistic Plan for Integration:**

##### 1. Phase 1: Pilot Implementation

- ➔ Test dedicated bus lanes on two busy routes for three months.
- ➔ Launch a simple carpooling program in schools and offices through awareness campaigns.

##### 2. Phase 2: Expansion

- ➔ Roll out dedicated lanes city-wide and develop the Smart Bus App for real-time updates.
- ➔ Add bike rental stations and cycling lanes.

### 3. Sustainability:

- ➔ Electric shuttle buses powered by solar energy reduce emissions.
- ➔ Carpooling and cycling cut down fuel use and pollution.

### 4. Accessibility:

- ➔ Affordable public transport options make it accessible to all.
- ➔ User-friendly apps and awareness programs ensure ease of adoption

## *Problem:3- Global & Environmental Issues*

Access to Clean Water- How might you help communities that struggle to access clean drinking water?

### Empathize

**We began by understanding the challenges faced by communities worldwide who lack access to clean drinking water. Key insights revealed:**

- ➔ Root Causes: Poverty, contaminated water sources, and inadequate infrastructure.
- ➔ Health Risks: Widespread waterborne diseases like cholera and dysentery.
- ➔ Daily Burden: Women and children bear the responsibility of fetching water, often traveling long distances.
- ➔ This imbalance not only impacts health but also education, productivity, and economic opportunities.

### Define

**Problem Statement: Communities with limited resources experience persistent challenges in accessing clean, safe, and affordable drinking water. This issue leads to severe health risks, economic strain, and significant time spent fetching water, particularly for vulnerable groups like women and children.**

### Ideate

**To address the defined problem, we brainstormed practical, affordable, and scalable solutions:**

1. Solar Water Disinfection (SODIS): Purify water using sunlight and plastic bottles.
2. Low-cost Bio-sand Filters: Use sand, gravel, and charcoal for natural water filtration.
3. Clay Pot Filtration: Locally crafted clay pots to filter and store clean water.
4. Rainwater Harvesting Kits: Collect and purify rainwater for drinking purposes.
5. DIY Solar Desalination: Use solar evaporation to extract clean water from salty or contaminated sources. After evaluating these options based on cost, accessibility, and effectiveness, we selected the DIY Low-cost Bio-sand Filter as our primary solution.

## *Prototype*

**We designed and built a DIY Low-cost Bio-sand Filter with readily available materials:**

### **Materials:**

- ➔ Food-grade plastic bucket or drum (20-30 liters).
- ➔ Fine sand, gravel, and activated charcoal.
- ➔ PVC pipes for inlet and outlet.
- ➔ A lid to prevent contamination.

### **How It Works:**

1. Top Layer (Fine Sand): Traps dirt and pathogens.
2. Middle Layer (Activated Charcoal): Removes odors, impurities, and microorganisms.
3. Bottom Layer (Gravel): Supports filtration layers and facilitates water flow.
4. Pipe System: A PVC pipe collects clean, filtered water into a safe container.

### **Why This Works:**

- ➔ Removes physical impurities, harmful bacteria, and parasites.
- ➔ Easy to build, maintain, and clean periodically.
- ➔ Scalable to serve households or small communities effectively.

## *Test*

**We conducted field trials to test the prototype's effectiveness and usability:**

### **1. Water Quality Testing:**

- ➔ Water samples were analyzed for turbidity, pathogens, and contaminants before and after filtration.
- ➔ Results showed a significant reduction in impurities and harmful microorganisms.

### **2. User Feedback:**

- ➔ We collected insights from households and schools where the prototypes were deployed.
- ➔ Users appreciated the filter's simplicity, effectiveness, and improved water taste.

### **3. Iterate and Refine:**

- ➔ Based on user feedback, we made minor design adjustments to improve usability and durability.

## Implement

To ensure widespread adoption, we developed a structured rollout plan:

### 1. Awareness Campaigns:

- ➔ Partnered with NGOs and local leaders to educate communities about the benefits of clean water and the solution.

### 2. Workshops:

- ➔ Organized hands-on sessions to train community members, including students, on building and maintaining the filters.

### 3. Community Resource Centers:

- ➔ Established hubs to distribute materials (sand, gravel, charcoal) and provide repair support.

### 4. Monitoring and Follow-ups:

- ➔ Periodic testing of water quality to ensure consistent use and filter performance.

### 5. Scaling Up:

- ➔ Documented success stories to demonstrate impact and expanded the solution to other regions facing similar challenges.

## *Problem:4- Health & Well-being*

- 1. Mental Health Support-** Is there a need for better mental health resources for students or young people? What kinds of solutions could make it easier for them to get help?

## Empathize

We began by understanding the needs and challenges faced by young people regarding mental health.

### Interviews/Surveys:

We conducted interviews and surveys to ask students how they feel about discussing mental health. This helped us identify the main barriers to seeking help, such as stigma, lack of resources, and limited awareness.

### Observations:

We closely observed behavioral patterns, noting common signs of stress during exams or instances of social withdrawal. We also explored how students currently cope with mental health challenges.

### Insights:

From our research, we found that:

- ➔ Students often hesitate to seek help due to a fear of judgment.

- ➔ Many students are unaware of the resources available to them.
- ➔ Schools lack trained mental health staff to address these concerns effectively.

### Define

Based on our findings, we defined the problem:

#### **Problem Statement:**

“Students need accessible, judgment-free mental health support and resources that are affordable and easy to use.”

### Ideate

**We brainstormed various solutions to address the identified challenges:**

- ➔ Peer Support Programs: Train select students to act as “mental health buddies” who can provide basic emotional support.
- ➔ Digital Support Groups: Develop moderated online chat groups where students can share their feelings and seek advice anonymously.
- ➔ Mental Health Corners: Create quiet, designated spaces in schools equipped with tools like suggestion boxes, mood journals, and stress-relief activities.
- ➔ Short Weekly Workshops: Conduct 15-20 minute interactive workshops on stress management and emotional well-being.
- ➔ Mobile App or Hotline (Low-Tech): Provide students with a basic mobile app or text-based hotline to seek professional guidance anonymously.

### Prototype

**After evaluating the solutions, we chose to combine the Peer Support Program with Mental Health Corners for the following reasons:**

- ➔ Peer Support: Encourages students to communicate with relatable peers, creating a safe and supportive environment.
- ➔ Mental Health Corners: A physical presence within the school helps normalize seeking help and provides immediate access to tools and resources.
- ➔ This approach is low-cost, easy to implement, and scalable.

#### **Prototype Details:**

##### **1. Peer Support Program:**

- ➔ We selected 2-3 students from each grade and trained them with basic mental health first aid.
- ➔ Training included role-playing, empathetic listening, and identifying when to escalate issues to teachers or professionals.

## 2. Mental Health Corners:

- ➔ We set up dedicated, quiet spaces with comfortable seating.
- ➔ Resources included journals, stress balls, and information pamphlets on managing anxiety and seeking help.
- ➔ A suggestion box was also provided for students to share anonymous concerns.

### *Test*

**We piloted the program for one month in a selected school to test its effectiveness.**

- ➔ We collected feedback through surveys from students, peer buddies, and teachers.
- ➔ Outcomes were tracked to measure:
- ➔ An increase in students reaching out for help.
- ➔ A reduction in stress-related incidents.

### *Implement*

**Based on the success of the pilot program, we developed a scale-up plan:**

#### 1. Community Engagement:

- ➔ We partnered with local NGOs and healthcare providers for additional support.
- ➔ Parent-teacher meetings were utilized to promote awareness and encourage participation.

#### 2. Resource Management:

- ➔ Peer training sessions were conducted with the help of volunteers or mental health professionals.
- ➔ Mental health corners were equipped using donated supplies.

#### 3. Monitoring:

- ➔ Teachers were assigned to oversee the program's implementation and progress.
- ➔ We scheduled quarterly review meetings to adapt and improve the program based on ongoing feedback.

## *Problem:5- Technology & Accessibility*

1. **Digital Learning Tools:** How can online learning platforms be made more engaging or accessible for students who struggle with traditional teaching methods?

### *Empathize*

**Empathize:** Understanding the Learners' Needs

**Objective:** Our goal was to gain a deep understanding of students' challenges, preferences, and learning behaviors.

## Activities:

- ➔ **Interviews & Surveys:** We conducted interviews with students who find traditional learning methods challenging. Through these discussions, we gained insights into their pain points with current online platforms, such as lack of motivation, difficulty staying focused, and struggles with reading comprehension.
- ➔ **Observation:** We observed students using existing online learning platforms to identify where they struggled—whether it was frustration with complex navigation, a sense of disconnection from content, or the absence of interaction.
- ➔ **Collaboration with Teachers:** We engaged with teachers to understand their perspectives on student challenges and the pedagogical methods that might be missing or underutilized.

## Key Insights:

- ➔ Many students struggle with monotonous content delivery, lack of interactivity, and excessive text-heavy resources.
- ➔ Engagement drops significantly when the content is not visually stimulating or fails to connect to real-world applications.
- ➔ Students with learning difficulties often find it challenging to follow linear, text-based instructions.

## *Define*

### 2. Define: Identifying the Core Problem

**Objective:** Based on our findings in the Empathize phase, we defined the core problem as follows:

#### Problem Statement:

**“Students who struggle with traditional teaching methods need an online learning platform that is visually stimulating, interactive, and adaptable to their learning styles to enhance engagement and retention.”**

#### Challenges to Address:

- ➔ Students have difficulty staying engaged with linear, text-heavy content.
- ➔ There is a lack of interactivity and hands-on learning experiences.
- ➔ Content needs to be accessible in multiple formats (e.g., video, audio, interactive elements) to cater to diverse learning styles.
- ➔ Simplified navigation is essential for ease of use and accessibility.

## *Ideate*

### 3. Ideate: Brainstorming Potential Solutions

**Objective:** To address the core challenges, we brainstormed creative solutions that would make the platform engaging, interactive, and adaptable.

#### Brainstorming Ideas:

- ➔ **Gamification:** We proposed integrating game-like elements such as rewards, levels, and badges to motivate students to complete tasks.

- ➔ **Interactive Quizzes and Activities:** Incorporating drag-and-drop exercises, quizzes, and simulation-based learning to make content engaging.
- ➔ **Multimedia Learning:** Offering content in various formats—videos, podcasts, and infographics—to suit visual, auditory, and kinesthetic learners.
- ➔ **Personalized Learning Paths:** Developing a feature to tailor content based on each student's progress, preferences, and performance, allowing self-paced learning.
- ➔ **Collaborative Learning Spaces:** Introducing discussion boards, group challenges, and collaborative projects to enable peer-to-peer learning.
- ➔ **Voice and Speech Recognition:** Adding voice-activated navigation and text-to-speech features to support students with learning difficulties, such as dyslexia.

## *Prototype*

### 4. Prototype: Developing a Simple Model

**Objective:** We created a low-fidelity prototype to visualize the proposed solutions and test key functionalities.

#### **Prototype Concept:**

- ➔ **Main Interface:** A clean, visually appealing dashboard with simple navigation across subjects.
- ➔ **Personalized Learning Hub:** A customizable space where students could track their progress, access preferred content formats (e.g., videos, audio, infographics), and set goals.
- ➔ **Interactive Content:** Lessons included interactive quizzes, exercises, and mini-games contextually linked to the curriculum.
- ➔ **Gamified Elements:** A reward system with points, badges, and certificates to encourage engagement.
- ➔ **Accessibility Features:** Adjustable font sizes, high-contrast modes, and text-to-speech capabilities were integrated.
- ➔ **Peer Learning Tools:** We introduced a safe forum or chat space to promote discussions, idea-sharing, and collaborative projects. To bring this prototype to life, we utilized low-cost platforms like wireframes and simple interactive models to demonstrate the features and functionality.

## *Test*

### 5. Test: Gathering Feedback and Iterating

**Objective:** We tested the prototype with a small group of students to gather insights on usability, engagement, and accessibility.

#### **Testing Activities:**

- ➔ **Usability Testing:** We observed students navigating the platform, noting challenges related to interface design, engagement, or accessibility.
- ➔ **Surveys & Feedback:** We conducted surveys and focus groups to gather direct feedback on students' experiences—what they liked and what needed improvement.

- ➔ **Engagement Observation:** We tracked student activity to analyze how often they logged in, interacted with content, and completed lessons.

### Results and Iterations:

- ➔ We found that while the interface was intuitive, the gamification elements needed enhancement (e.g., adding levels or incorporating a storyline).
- ➔ Students with learning difficulties appreciated the text-to-speech feature, prompting us to expand it across more content.
- ➔ Based on feedback, we diversified multimedia options to include more interactive and visual elements that resonated with student preferences.

## Implement

### 6. Launch: Implementation and Continuous Improvement

**Objective:** With insights and iterations incorporated, we prepared to launch the final version of the platform and established a framework for ongoing improvement.

#### Implementation Steps:

- ➔ **Pilot Launch:** We rolled out the platform to a larger group of students, incorporating all improvements from the testing phase.
- ➔ **Training and Support:** We developed onboarding materials, such as tutorial videos and guides, to help students navigate and utilize the platform effectively.
- ➔ **Ongoing Monitoring:** We continuously tracked platform usage, student progress, and feedback to ensure the platform addressed evolving needs.

#### Key Features for Long-term Success:

- ➔ **Data Analytics:** By tracking student performance data, we could optimize personalized learning paths and content.
- ➔ **Continuous Updates:** Regular updates ensured that the content library remained relevant, engaging, and fresh.
- ➔ **Feedback Loop:** We actively encouraged feedback from both students and teachers to refine and enhance the platform over time. Through this approach, we created a dynamic, adaptable, and student-centric online learning platform that addressed the core challenges and improved engagement, accessibility, and learning outcomes.

# 5

## Innovation and Creativity



### Learning Outcomes:

After studying this chapter, learners will be able to:

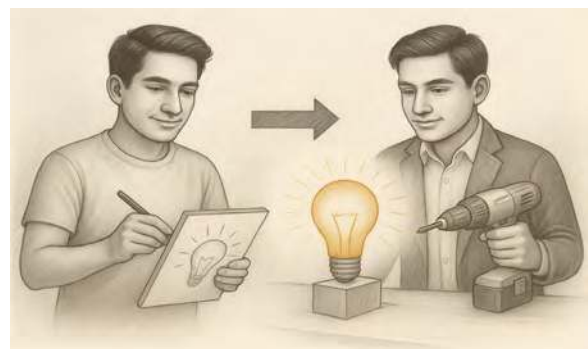
1. Give the significance of creativity and innovation in responding to real world challenges and future uncertainties
2. Demonstrate how to apply creative thinking and innovative problem solving skills
3. Identify Real world problems through critical analysis and then creatively generate innovative idea as potential solution
4. Identify and apply innovative tools and entrepreneurial mindsets that enable them to overcome challenges creatively and confidently build new ideas or ventures.

### Big Idea : The Heart of Innovation

- ➔ In a world driven by AI, automation, and rapid change — it's not enough to just think outside the box.
- ➔ You must redefine the box, break it, and build something new.
- ➔ That's what real innovators do.

### Creativity vs Innovation

Creativity and innovation are closely related, but they are not the same. Creativity is the ability to generate new and original ideas — to imagine possibilities that don't yet exist. It's about thinking in fresh, unconventional ways. Innovation, on the other hand, is about taking those creative ideas and turning them into real, usable solutions. While creativity is mostly mental — sketching, imagining, or conceptualizing — innovation is action-oriented. It involves building, testing, improving, and finally implementing an idea in the real world.



For example, imagine a student who comes up with the idea of a “Chill Chair” — a special chair that plays calming music when someone sits on it. That’s creativity. If the student then builds a working model using speakers, motion sensors, and Bluetooth connectivity, and uses it in the school wellness room, that becomes innovation. Another example is when you see people littering at school and think of placing color-coded dustbins that also teach environmental tips — that’s creative thinking. But actually designing the bins, placing them around campus, and encouraging others to use them — that’s innovation in action.

### *From 'what If?' to 'How Might We?' : The Journey from Creativity to Innovation*

- Creativity thrives in imagination, while innovation brings measurable change. One without the other is incomplete. If you’re creative but don’t act, your ideas remain just dreams. If you act without creativity, you may keep repeating old methods. In today’s fast-changing world, we need both: the power to dream big and the courage to make those dreams work.

### *Creativity vs Innovation*

| <i>Aspect</i>    | <i>Creativity</i>                                                 | <i>Innovation</i>                                               |
|------------------|-------------------------------------------------------------------|-----------------------------------------------------------------|
| 1. Definition    | The ability to imagine original ideas, concepts, or possibilities | The process of transforming those ideas into tangible solutions |
| 2. Focus         | Thinking differently                                              | Doing differently                                               |
| 3. Outcome       | Ideas, designs, sketches, stories, possibilities                  | Products, services, methods, processes that have real impact    |
| 4. Risk Involved | Low risk — it stays in the mind or on paper                       | Higher risk — it involves resources, time, and public feedback  |
| 5. Nature        | Abstract and limitless                                            | Practical and often measurable                                  |
| 6. Dependency    | Can happen individually, without a plan                           | Requires action, iteration, and often collaboration             |

*“Creativity is seeing what everyone sees, but thinking what no one else has thought.”*

— Albert Einstein

### *Creativity vs Innovation : The Journey From Idea to Implementation*

#### *Example 1: School Level*

- **Creativity:** You imagine a smart pen that highlights important text automatically when you read a book.
- **Innovation:** You actually create a working prototype using a small camera, software, and sensor, and test it with classmates.
- **Creativity gave birth to the idea;** innovation brought it to life.

#### *Example 2: Business and Entrepreneurship*

- **Creativity:** A student comes up with a quirky idea for a “Chill Chair” that plays calming music when you sit down.
- **Innovation:** She gathers feedback, builds a prototype using Bluetooth speakers and sensors, and sells it at a youth exhibition.

### Example 3: Social Change

- **Creativity:** You observe that waste segregation is ignored at school and think of color-coded bins that also teach sustainability.
- **Innovation:** You design posters, make announcements, work with the administration, and implement a waste segregation system in your campus.
- Here, innovation leads to behavior change, not just a physical product.

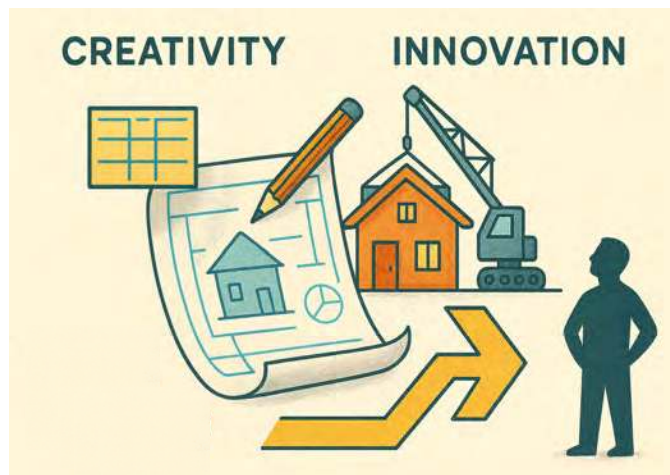
### Example 4: History and Invention

- **Creativity:** Leonardo da Vinci imagined flying machines in his drawings hundreds of years ago.
- **Innovation:** The Wright Brothers turned a similar idea into a real working airplane in 1903.

## Why Do You Need Both?

Creativity and innovation are often spoken of together, but they serve distinct and equally important roles. Creativity is the spark — the generation of fresh ideas, unique perspectives, and imaginative solutions. It's like having a set of brilliant blueprints filled with potential. But without innovation, those ideas remain just that — untested and unrealized. On the other hand, innovation is the process of bringing those ideas to life, turning thoughts into action, and solutions into impact. However, without creativity, innovation risks becoming repetitive — like building the same house over and over,

without improvement or originality. True progress happens when creativity fuels innovation, and innovation gives creativity a purpose. You need both to build something meaningful, relevant, and future-ready.



**The future belongs to those who can imagine boldly and execute bravely.**

### Quick Tip for Students: Ask Yourself

#### Question for Creativity

- ➔ “What if...?”
- ➔ “Can I do this in a new way?”
- ➔ “Is there another possibility?”

#### Question for Innovation

- ➔ “How might we...?”
- ➔ “Can I test this idea in real life?”
- ➔ “What resources or skills do I need?”

## Unlocking Innovation : How to spot opportunities

Every great innovation starts with a question — not about what already exists, but about what’s missing. The world around you is full of untapped ideas, hidden in plain sight. The key is to shift your perspective: stop accepting things as they are, and start asking why they are that way. Often, the best opportunities are disguised as everyday problems — the ones people complain about, work around, or simply



tolerate without question. Entrepreneurs don’t wait for inspiration to strike; they go looking for it in the frustrations, inefficiencies, and unmet needs of the world.

### Observe the Unnoticed problems around you - Ask Yourself

- What frustrates people around me?
- What feels outdated, inefficient, or unfair?
- Where do I see people using “workarounds” instead of proper solutions?

These questions open the door to innovation. When you train your mind to notice what others overlook, you begin to see opportunity everywhere — in your home, your school, your neighborhood, or your city.

### Activity

#### Opportunity Hunt

- » For one full day, become a Problem Detective. Carry a notebook or use your phone to jot down at least five real-world problems you observe — they could be at home, in school, or in public spaces.
- » Once you’ve listed them, choose one and brainstorm how technology, design, or even a simple change in process could solve it.
- » Remember, no idea is too small — even the biggest innovations often start with solving something ordinary in an extraordinary way.

### Box Breaker Outlook : Think Beyond Limits and Innovate

The best innovators do 3 things differently:

#### 1. Challenge Assumptions:

- ➔ “Why do we do it this way?”
- ➔ “What if the opposite were true?”

#### 2. Cross-Connect Ideas:

- ➔ Combine knowledge from different fields (art + tech, science + design)

### 3. Prototype Fast:

- ➔ Start rough, test quickly, learn rapidly. Don't wait for perfection.

#### **Case Study 1** *Ankit Agarwal – Turning Temple Waste into Business*

**Problem:** 8 million tons of temple flower waste were polluting rivers.

**Idea:** What if this sacred waste could become something meaningful?

**Innovation:** He created Phool.co, a startup that turns waste flowers into incense sticks and biodegradable products, employing local women.

#### *Why it Worked:*

- Solved an environmental problem.
- Created employment.
- Built a sustainable, revenue-generating model.

#### **Case Study 2** *Bollywood Connection: The Spirit of 'Rancho' Meets Real Life*

Remember Rancho from 3 Idiots? He:

- Valued practical learning over rote memorization.
- Used local tools and logic to solve real problems.
- Inspired a generation to think independently.

**Rancho's mindset is not fiction — it's a mindset innovators adopt daily.**

#### *Challenge: Build a Mini-Innovation*

**Step 1:** Identify a problem

- ➔ Choose one real issue — water wastage, student stress, energy use, etc.

**Step 2:** Ideate solutions

**Sketch out at least 3 ideas. Use SCAMPER technique:**

- ➔ Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, Reverse.

### **Step 3:** Build a prototype

- ➔ Use cardboard, apps, code, or even Canva/mockups to show your concept.

### **Step 4:** Pitch your idea

- ➔ Explain the problem, your idea, and how it helps. Do it in 2 minutes.

#### **Case Study 3** *Indian Innovator Spotlight: Vinisha Umashankar (Age 15)*

Vinisha designed a solar-powered ironing cart to replace charcoal-based ones.

- Saves the environment.
- Increases vendor income.
- Recognized by Prince William's Earthshot Prize.

**Lesson:** Age, background, or degrees don't define your innovation. Purpose and action do.

### **Think Global: Frugal Innovation**

Frugal Innovation = Doing more with less.

Also called "**Jugaad Innovation**" in India, it means:

- Simple solutions
- Cost-effective
- Accessible for all

#### *Tools for Young Innovators*

| <b>S. No.</b> | <b>Tool/Method</b>    | <b>How It Helps</b>                          |
|---------------|-----------------------|----------------------------------------------|
| 1.            | Design Thinking       | Empathize, Define, Ideate, Prototype, Test   |
| 2.            | Business Model Canvas | Visualize how your idea creates value        |
| 3.            | SWOT Analysis         | Understand your idea's Strengths, Weaknesses |
| 4.            | Elevator Pitch        | Communicate your idea in 30 seconds          |

## Activity 2



### *“What If?” Brainstorm Box*

**Objective:** Encourage lateral thinking and creativity.

**Instructions:**

1. Place slips of paper in a box, each starting with “What if...”
  - e.g., What if schools ran at night instead of day?
  - What if phones only worked when you walked 1,000 steps?
  - What if books could talk to you?
2. Students draw a slip and take 5 minutes to write or draw their creative response.
3. Then, they must think: How could I make this idea real? (Turning creativity into innovation)

**Extension:** Encourage students to pitch one idea as a mini-startup!

## Activity 3



### *The “Innovation Relay” Challenge*

**Objective:** Simulate the process of transforming creative ideas into innovative solutions.

**Instructions:**

1. Divide the class into small teams.
2. Stage 1 – Idea Generation (Creativity): In 5 minutes, each team generates a crazy/fun idea to solve a daily problem.
3. Stage 2 – Development (Innovation): The next team takes that idea and works for 10 minutes to turn it into a workable plan (materials, process, users).
4. Stage 3 – Prototype Pitch: Each team presents their evolved version.

**Example:** Team A writes: “Shoes that clean the floor as you walk.”

Team B turns that into: “A slipper with detachable microfiber and a small water spray nozzle.”

## Group Discussion

- Why is failing early better than failing later in innovation?
- Can traditional knowledge be a source of modern innovation?
- Should innovation always be tech-based? Why or why not?

## Reflective Writing : Exploring your Thoughts

- Think of a time when you had an idea — big or small.
- Did you act on it? Why or why not?
- What would you do differently today?

## Recap Table : Overview and Insights

| Concept              | Meaning                                 | Real Example                         |
|----------------------|-----------------------------------------|--------------------------------------|
| 1. Creativity        | Imagining something new                 | Self-cooling school uniform          |
| 2. Innovation        | Bringing an idea to life                | Making and selling that uniform      |
| 3. Design Thinking   | Human-centered problem solving approach | Developing an app for traffic alerts |
| 4. Frugal Innovation | Simple, low-cost solution               | Clay fridge (Mitticool)              |

### Final Thought : A Thought to Ponder

The world doesn't just need job seekers.

It needs job creators, problem solvers, and dreamers who act.

Innovation isn't a gift. It's a skill — and you can build it.

So stop waiting for change.

Start becoming the one who creates it.



# Financial Literacy



## Learning Objectives:



After studying this chapter, learners will be able to:

- ⇒ Define the concept of Finance
- ⇒ Find the basic financial concepts
- ⇒ Appreciate the need for financial planning
- ⇒ Identify various investment avenues
- ⇒ Recognise various sources of raising fund
- ⇒ Apply the financial concepts in daily life in taking financial decisions
- ⇒ Discuss various financial decisions
- ⇒ Find out various factors affecting financial decisions



*"There is a secret psychology of money. Most people don't know about it. That's why most people never become financially successful. A lack of money is not the problem; it is merely a symptom of what's going on inside of you."*

*T. Harv Eker.*

## Opening case "Money Matters"

Presha, a 14 years old girl, loved solving problems and dreaming big. One day, she noticed something troubling—her friend Nipun had to stop school because his parents couldn't afford the fees and other costs.



*"Why does money stop kids from learning?" Presha wondered. "Isn't there a way to make things better?"*

*That evening, she asked her grandmother, "Dadi, why is money such a big deal in everything?"*



*Dadi smiled and replied, “Beta, money isn’t just paper. It’s a tool. It helps people build schools, hospitals, roads—and dreams. That’s why finance is important.”*

The conversation between Presha and her Dadi highlights an important point: Money is essential to acquire resources, and these resources are used to meet the needs and wants of individuals in daily life. Since finance plays such a vital role, it’s important to understand where money comes from, how to determine the amount needed for various activities, how to use the funds effectively, and—more importantly—how to grow those funds over time. Managing and growing financial resources is key to achieving both short-term goals and long-term stability.



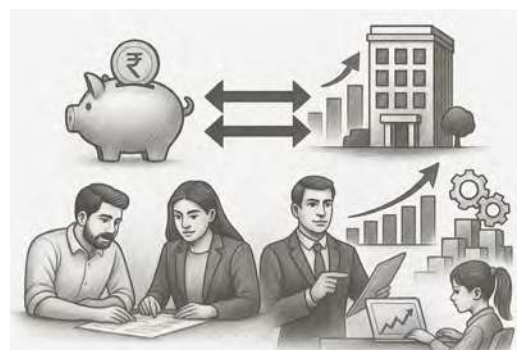
“Financial Literacy” entails intimate knowledge of financial concepts such as savings account, compound interest, financial planning, credit card mechanics, advantageous savings methods, consumer rights, time value of money as well as the knowledge of making proper decisions about certain personal finance areas such as real estate, insurance, investing, saving, tax planning, and retirement.

Financial literacy is a weapon in the hands of individuals to improve their financial status and well-being by making informed decisions in creating household budgets, saving plans, managing debt, planning

for life cycle needs, and dealing with unexpected emergencies without incurring unnecessary debts (Lusardi and Mitchell, 2011; Lusardi, 2019).

In India, this form of financial literacy is vital for increasing financial inclusion and financial stability among disadvantaged households. A financially literate person may make good use of financial products and services (Joshi, 2013; ADB, 2022). Likewise, financially knowledgeable consumers can endure adverse economic times because they have saved enough money, purchased insurance, and diversified their investments (Lusardi & Mitchell, 2014). It is clear why financial knowledge is essential.

Whether it’s managing personal finances or overseeing the finances of a business, a solid understanding of financial concepts is crucial. Every business operates with specific goals, and achieving these goals requires the execution of various activities. To carry out these activities, both physical and human resources are needed—and acquiring these resources requires finance.



In this segment, over the next few days, we will explore fundamental financial concepts such as income, savings, expenses, costs, investment, profit, return, and budgeting. We will also delve into key aspects of business finance, including cost structures, pricing strategies, financial planning, and core financial decisions—particularly financing and investment decisions.

## **Activity 1**



### *Introspection, estimation and analysis (10 minutes)*

- » Ask every student to estimate and list down the household expenses for a month.
- » After listing down the household expenses, students should figure out the total expenses for a month
- » Now students need to estimate and list down the amount earned by the family in a month from various sources (Salary/Rent/Interest/Profit)
- » Now students will compare the total expenses with the amount received, and see whether it results in surplus or deficit.
- » Students will also list down the ways in which surplus/deficit is managed

### *Presentation, discussion and reflection ( 10 minutes)*

- » Teacher will ask a few students to share the data related to various expenses, income, surplus/deficit etc.
- » After listening to the responses the teacher will introduce the concept of need,wants, income,savings,Investment, budgeting etc.

## *Investment and Investment Avenues:*

**Investment** : It is the act of putting money into assets or projects to earn a profit or generate income over time.

### *Common Investment Options:*

- Bank Fixed Deposits (FDs)
- Stock Market (Shares)
- Mutual Funds
- Real Estate (Property)
- Gold or Silver
- Public Provident Fund (PPF)
- Marketable Securities

### *Purpose of Investing:*

- Grow wealth over time
- Beat inflation
- Achieve financial goals (education, house, retirement)
- Generate passive income

## **Budgeting**

It is the process of planning how to spend your income. It helps you manage your money by balancing income, expenses, savings, and investments.

### *Key Features:*

- ➔ Helps track where your money goes
- ➔ Prevents overspending
- ➔ Ensures savings and money for future goals
- ➔ Encourages responsible financial habits

### *Example:*

If your monthly income is ₹ 20,000, you might budget:

- ➔ ₹ 8,000 for needs (rent, groceries, bills)
- ➔ ₹ 5,000 for wants (shopping, eating out)
- ➔ ₹ 4,000 for savings
- ➔ ₹ 3,000 for investments

## **Case Study 1**

### **“The Cold Brew Startup”**

#### **Characters:**



**Riya** – 16-year-old commerce student, analytical and ambitious



**Arjun** – Riya’s classmate, creative, tech-savvy, and risk-taker



**Mrs. Sen** – Economics teacher, experienced in entrepreneurship mentorship

### Scene 1: The Entrepreneurial Spark

One warm afternoon after their Business Studies class, Riya and Arjun stopped at a cafe. Riya looked at the ₹180 price tag of her cold brew coffee and said,

*“We’re paying so much for a simple drink. What if we created a healthier, homemade cold brew and sold it at school?”*

Arjun’s eyes lit up.

*“Yes! And we could market it as an affordable, eco-friendly alternative — a mini startup!”*

They agreed to launch a cold brew business during the school’s weekend fest.

**Their objective:**

- ➔ Apply theoretical concepts of entrepreneurship, budgeting, financing, and marketing in a real setting.

### Scene 2 Business Planning & Budgeting

That evening, they used Excel to prepare a basic business plan and projected budget:

| Item                              | Estimated Cost (₹) |
|-----------------------------------|--------------------|
| Coffee Beans (locally sourced)    | 300                |
| Milk & Natural Sweeteners         | 200                |
| Recyclable Glass Bottles (25)     | 250                |
| Labels and Branding Stickers      | 100                |
| Digital Marketing (Instagram Ads) | 150                |
| Miscellaneous Costs               | 100                |
| Total Budgeted Expense            | 1,100              |

They decided to sell 25 bottles at ₹ 80 each, expecting ₹ 2,000 in total revenue.

**But they faced a problem:**

- **Total funds available:** ₹ 700 (Riya had ₹400, Arjun had ₹ 300) They were short of ₹ 400.

### Scene 3 Fundraising & Strategic Finance

Next day, they approached Mrs. Sen, sharing their plan.

Mrs. Sen:

*"This is a promising initiative. You've considered sourcing, branding, and sustainability — impressive! Now comes the real challenge: raising working capital."*

She offered two funding options to simulate a real-world decision:

1. Loan of ₹400 at 10% simple interest (to be repaid after sales)
2. Equity Investment: She invests ₹400 and gets 25% of net profit



**Riya:** "A loan adds risk if sales underperform. But equity means we share profits."

**Arjun:** "I say equity — less pressure, and we keep our operations cash-friendly."



They chose the equity investment, understanding that it meant sharing success.

### Scene 4 Launch Day – Execution & Outcome

They launched their cold brew brand, "Brewed Smart", during the fest. Their stall design was minimal, and they used QR code payments. Their Instagram campaign had created good buzz.

#### Sales Report:

- ➔ Units sold: 25 bottles at ₹ 80 = ₹ 2,000 revenue
- ➔ Total Cost: ₹ 1,100
- ➔ Net Profit: ₹ 900
- ➔ Mrs. Sen's Share (25%): ₹ 225
- ➔ Riya & Arjun split: ₹ 337.50 each

## Classroom Reflection & Financial Learning



(Mrs. Sen): “Now that you’ve reviewed the case, let’s reflect. What did Riya and Arjun actually learn?”

“They didn’t just sell a product — they applied cost analysis, pricing strategies, and risk management!”



“They used equity financing instead of debt — that was a smart choice under uncertainty.”

“Their use of digital marketing helped create demand — a good marketing ROI.”



“Excellent observations!”

## Business Concepts Covered

- ➔ Revenue vs. Profit
- ➔ Budgeting and Forecasting
- ➔ Equity vs. Debt Financing
- ➔ Break-even Analysis
- ➔ Marketing Strategy (Digital Tools)
- ➔ Sustainable Business Practices

## Sources of funds

### Personal Sources

1. **Savings:** Money saved from personal income.
2. **Friends and Family:** Borrowing or contributions from close contacts.
3. **Personal Loans:** Loans taken from banks or financial institutions in personal capacity.

## *2. Internal Sources (For Businesses)*

1. **Retained Earnings:** Profits that a business keeps instead of distributing as dividends.
2. **Sale of Assets:** Selling unused or old equipment, machinery, or property.

## *3. External Sources*

### **Short-Term Sources (up to 1 year):**

1. **Trade Credit:** Buying goods/services now and paying later.
2. **Bank Overdraft:** Withdrawing more than the available balance in a current account.
3. **Short-Term Loans:** Borrowed funds with a quick repayment schedule.

### **Long-Term Sources (more than 1 year):**

1. **Equity Capital:** Selling shares to raise money from investors.
2. **Debentures/Bonds:** Borrowing money from the public with a promise to repay with interest.
3. **Bank Loans:** Long-term loans from banks for fixed investments.
4. **Venture Capital:** Venture Capital (VC) is a type of financing provided by investors to startups and small businesses that have high growth potential but also involve high risk.

### *Key Features of Venture Capital*

1. **Equity Investment:** Venture capitalists invest money in exchange for ownership shares in the company.
2. **High Risk, High Return:** Venture capitalists invest in risky startups expecting high returns if the business succeeds.
3. **Support Beyond Money:** Venture capitalists often provide mentorship, business advice, and industry connections.
4. **Phased Funding:** Funds are usually provided in stages (called rounds) based on performance.
5. **Government Grants/Subsidies:** Funds provided by the government for specific purposes.
6. **Angel investors:** Angel investors are wealthy individuals who invest their personal money in startups and early-stage businesses, usually in exchange for equity (ownership).

### *Key Features of Angel Investors*

1. **Individual Investors:** Unlike venture capitalists (who are firms), angel investors are private individuals.

2. **Early-Stage Focus:** They typically invest when the startup is just beginning or even before it launches.
3. **Equity-Based:** They get a share in the business instead of expecting loan repayment.
4. **Smaller Amounts:** Usually invest small amounts compared to venture capital firms.
5. **Mentorship:** Often offer guidance, business advice, and industry contacts.



**Teacher:** We have discussed some common sources of funds. Now I want all of you to discover more about these funds and costs associated with each type of source.

## TAKE AWAY

Identify sources of funds used by any two business firms.

## CASE STUDY 2

### “SmartTech: A Teen Startup’s Big Financial Decisions”

#### Characters:



**Neha** – 17-year-old commerce student, tech-savvy and detail-oriented



**Kabir** – Her classmate, a risk-taker with a business mindset



**Ms. Fernandes** – Their business studies teacher and mentor

#### Scene 1 : The Startup Idea – INVESTMENT DECISION

Neha and Kabir noticed a common problem among their classmates — everyone kept misplacing their chargers, USB drives, or earphones. They came up with an idea:

“Let’s develop a compact, smart storage pouch with built-in tracking!”

They conducted a feasibility study and market research.  
They had two options for their investment:

| Option | Product Type                  | Initial Investment | Expected Return |
|--------|-------------------------------|--------------------|-----------------|
| A      | Regular tech pouch (low-tech) | ₹ 8,000            | ₹ 11,000        |
| B      | Smart pouch with tracker      | ₹ 15,000           | ₹ 25,000        |

**Decision:** After analyzing risk and return, they chose Option B, the smart pouch, believing in higher value creation.

➔ This is an investment decision — deciding where and how much to invest.

### Scene 2 : Raising the Capital – FINANCING DECISION

Now they needed ₹ 15,000 for manufacturing and packaging.

They considered three financing options:

| Source                          | Amount (₹) | Conditions                    |
|---------------------------------|------------|-------------------------------|
| Personal Savings                | 6,000      | No repayment, no interest     |
| Loan from Kabir's uncle         | 9,000      | 12% simple interest per annum |
| Angel Investor (senior student) | 9,000      | 30% share in profits          |

They discussed the risks of debt and the long-term cost of equity sharing.

**Decision:** They used ₹ 6,000 from savings and took ₹ 9,000 as a loan to avoid giving up ownership.

➔ This is a financing decision — deciding where to get the money from and in what form (debt or equity).

### Scene 3 : Business Launch & Earnings

The product launched during a school tech fest and sold 50 units at ₹ 500 each.

Total Revenue = ₹ 25,000

Total Expenses = ₹ 15,000

Net Profit = ₹ 10,000

After repaying ₹ 9,000 loan + ₹ 540 interest, they were left with ₹ 460 profit from that portion.

### Scene 4: Profit Distribution – DIVIDEND DECISION

Now with ₹ 10,000 in profit, they had two options:

| Use of Profit                                 | Amount (₹) |
|-----------------------------------------------|------------|
| Reinvest in new product line (wireless pouch) | ₹ 6,000    |

|                                               |         |
|-----------------------------------------------|---------|
| Keep as retained earnings (buffer/reserves)   | ₹ 2,000 |
| Distribute as dividend (cash to Neha & Kabir) | ₹ 2,000 |

**Decision:** They decided to retain ₹ 8,000 in the business and pay ₹ 1,000 each as a dividend.

➔ This is a dividend decision — deciding how much profit to distribute and how much to retain.

### *Discussion Questions : Engage and Reflect*

1. Why was Option B (smart pouch) a better investment despite the higher cost?
2. What would have been the long-term impact if they chose the angel investor instead of a loan?
3. Was it wise to reinvest most of their profits rather than paying a higher dividend?
4. What financial risks did they face in each decision?
5. How do these decisions apply to large businesses?



# Legal Forms of Business



## Learning Outcomes:

After studying this chapter, learners will be able to:

- ⇒ Identify various forms of business organisations.
- ⇒ Compare various forms of business organisations.
- ⇒ Discuss the legal provisions associated with different forms of business organisations.
- ⇒ Develop the basic understanding of IPR.
- ⇒ Find out the registration process of partnership and a company in India in brief.

## Case Study: “Ravi’s Repair Revolution: Choosing the Right Business Structure”

### Opening Scenario:

Ravi, a final-year college student with a talent for repairing electronic gadgets, began offering tech repair services from home while waiting for his exam results. What started as a casual activity quickly turned into a growing venture. Ravi was earning ₹3,000 per week without much overhead, and his reputation was spreading fast.

### Realizing the potential, Ravi began thinking of expanding:

- ➔ Setting up a dedicated workshop.
- ➔ Hiring or partnering with skilled technicians.
- ➔ Investing in advanced tools and equipment.
- ➔ Possibly exploring e-commerce or service apps in the future.

However, expansion required funding, strategic decision-making, and a clear legal structure.

## The Crossroads of Choice

Ravi now had three options in front of him:

### ☛ Option 1: Continue as a Sole Proprietor

- » Full control over the business.
- » Simpler legal structure and fewer formalities.
- » Easy to start and close.
- » **But:** Limited capital, unlimited liability, and no shared expertise.

### ☛ Option 2: Form a Partnership

- » Pool funds and share workload with a college friend.
- » Shared responsibilities and diverse skill sets.
- » Partnership deed outlines roles and profit sharing.
- » **But:** Joint liability, conflict risk, and limited growth potential.

### ☛ Option 3: Register a Public Limited Company

- » Limited liability, separate legal entity.
- » Eligible for outside investment (like the local investor).
- » Better brand credibility and long-term growth.
- » **But:** More paperwork, regulatory compliance, and initial costs.

## Classroom Discussion Prompts:



“Now that you’ve read Ravi’s situation, take a minute to think carefully — what would you advise him to do? Share your reasoning.”

## Discussion

**Student 1:** "Ma'am, I think Ravi should remain a sole proprietor for now. It gives him full control, and since his costs are low and he's just starting out, it's more manageable."



**Teacher:** "Great! That shows a cautious, step-by-step approach. But what about growth potential?"

**Student 2:** "Ma'am, I believe forming a partnership is better. He can share the capital and workload, especially if he hires his college friend who already has experience."



**Teacher:** "Excellent! That reduces his hiring cost and increases capacity. But remember, in a partnership, decision-making must be mutual."

**Student 3:** "Ma'am, considering the investor is showing interest, registering a company could help Ravi get external funding and scale in the future."



**Teacher:** "Very good point! Company gives access to equity investment. However, it also comes with legal responsibilities. Let's now understand all three forms in detail."

Lets know about the various forms of business organisation in brief:

### Sole proprietorship

A sole proprietorship is the simplest and most common form of business ownership. It is owned and managed by a single individual.

#### Key Features:

- » **Single Owner:** One person owns and controls the business.
- » **Easy to Start:** Minimal legal formalities and paperwork. No separate law exists for sole proprietorship.
- » **Full Control:** The owner makes all decisions and keeps all profits.
- » **Unlimited Liability:** The owner is personally liable for all debts and losses of the business.

- » **Not a Separate Legal Entity:** The business and the owner are legally the same.

### *Suitable For:*

- » Small-scale businesses
- » Low investment ventures
- » People who want full control and quick decision-making

### *Examples:*

- » Local grocery shops
- » Freelancers
- » Small repair services
- » Home-based artisans etc.

## **Partnership**

A partnership is a form of business organization where two or more individuals come together to run a business and share its profits, losses, responsibilities, and decision-making. There is a separate act for the partnership in India known as The Indian Partnership Act 1932. Although the registration of a firm is not compulsory but is better to register a firm.

### *Key Features:*

- » **Two or More Owners:** Usually formed by a small group (maximum 20 in most cases).
- » **Shared Responsibility:** Partners contribute capital, share profits/losses, and manage the business jointly.
- » **Agreement-Based:** Governed by a partnership deed outlining roles, profit sharing, and other terms.
- » **Unlimited Liability:** Generally, partners are personally liable for the debts of the business.
- » **Not a Separate Legal Entity:** The business and partners are legally considered the same.

### *Suitable For:*

- » Medium-sized businesses.
- » Businesses needing shared skills and capital.
- » Ventures where trust and teamwork are strong.

### *Examples:*

- » Law firms.

- » Medical clinics.
- » Small construction firms.
- » Design studios.

## Joint stock company

A company is a legal business entity formed by a group of people to engage in commercial activities. It is separate from its owners, and operates under legal regulations.



### Key Features:

- » **Separate Legal Entity:** The company is distinct from its owners (called shareholders).
- » **Limited Liability:** Owners are liable only to the extent of their investment.
- » **Perpetual Succession:** The company continues even if owners change or pass away.
- » **Requires Registration:** Must be registered under the Companies Act 2013.
- » **Formal Structure:** Managed by a Board of Directors; decisions follow legal and procedural norms.

### Types of Companies:

- » Private Limited Company (Pvt. Ltd.)
- » Public Limited Company
- » One Person Company (OPC)

### Suitable For:

- » Businesses needing large capital.
- » Startups looking for investment.
- » Long-term ventures with potential for expansion.

### Examples:

- » Tech startups.
- » Manufacturing units.
- » Large retail chains etc.

## Teacher :



Now you all know about the most common forms of business organisation. Now let's know about some of the important factors that are considered in choosing a form of business organisation.

## Factors:

### 1. Capital Requirements

- » If the business needs large investment, a company or partnership may be better.
- » For small capital needs, a sole proprietorship is sufficient.



### 2. Liability

- » If the owner wants to avoid personal risk, a company (with limited liability) is ideal.
- » Sole proprietorship and partnership involve unlimited liability, meaning personal assets can be used to pay business debts.

### 3. Control and Decision-Making

- » For full control and quick decisions, sole proprietorship is best.
- » In partnerships or companies, decisions are shared or governed by formal procedures.



### 4. Continuity or Stability

- » Companies offer perpetual succession (they continue even if ownership changes).
- » Sole proprietorship and partnership may end with the death or exit of the owner/partner.

### 5. Legal Formalities and Compliance

- » Sole proprietorship has the least legal formalities.
- » Partnerships require a partnership deed.
- » Companies have more regulations, need registration, audits, and regular filings.





## 6. Sharing of Risk

- » In a partnership, risk is shared among partners.
- » In a sole proprietorship, the owner bears all the risk.

## 7. Taxation

- » Tax rates and benefits vary by business form.
- » Sometimes, companies are taxed at higher rates than individuals.



## 8. Scope for Expansion

- » Companies can raise funds from the public or investors, ideal for large-scale growth.
- » Sole proprietorships may struggle to expand due to limited resources.

## Discussion



**Teacher:** Now we all know in brief about various common forms of business organisations and factors in choosing one best form of business organisation, what would you suggest to Ravi.

**Student 3:** (Responding promptly) Maam! Now Ravi has to carefully evaluate his goals, resources, and long-term vision to decide which business structure would best support his journey.



**Well done!**

## Activity



Now to develop better understanding we all will interact (personally/telephonically/any other media) with one proprietor, one partner of a firm and shareholder of a company and discover more about the legality, registration process and functioning etc. We will share our experiences next week.

### *Sharing experiences, reflecting and learning from each other*

Teacher will allow 3-4 students to share their experiences and will conclude the activity by sharing his/her experiences.

**Student 1:** (As soon as the discussion ended) Maam! I want to ask one more question.



**Teacher:** Please ask.



**Student 1:** What if someone copies our business idea, product or services or technology used? What do we do then? Do we have any legal provisions related to this?



**Teacher:** You raised a very important question. Yes. There is something called IPR (Intellectual Property Rights). Let's know about it in brief.



## Intellectual Property Rights (IPR)

Intellectual Property Rights (IPR) are legal protections granted to the creators, inventors, and businesses for their inventions, creative works, and brands. IPR helps safeguard the unique ideas, products, and processes that result from intellectual effort and innovation.



### Importance of IPR:

- » **Protection:** Safeguards creators' and businesses' ideas and prevents unauthorized use.
- » **Monetary Benefit:** Intellectual properties can be licensed or sold for financial gain.
- » **Encourages Innovation:** Protects innovations and provides an incentive to invest in new creations.
- » **Global Recognition:** Many countries recognize IPR, allowing creators to protect their work internationally.

## *Enforcement of IPR:*

- » IPR holders can take legal action against infringement (unauthorized use) of their rights in courts.
- » National and international treaties (such as the TRIPS Agreement) help ensure the protection of IPR across countries.

## *Key Types of IPR:*

### *1. Copyright*

- » Protects original works of authorship, such as literature, music, art, and software.
- » **Duration:** Lifetime of the creator + 60 years.
- » **Example:** A novel, a song, a painting.

### *2. Trademarks*

- » Protects symbols, logos, brand names, and slogans used to distinguish goods or services
- » **Duration:** 10 years, renewable indefinitely.
- » **Example:** The logo of Nike (Swoosh), McDonald's golden arches.

### *3. Patents*

- » Protects new inventions or innovative technological solutions that are novel, non-obvious, and useful.
- » **Duration:** Typically 20 years from the filing date.
- » **Example:** A new type of mobile phone technology or a drug formula.

### *4. Design Rights*

- » Protects the visual appearance of a product (shape, color, pattern).
- » **Duration:** 10 years.
- » **Example:** The unique design of a chair or a car's body.

### *5. Trade Secrets*

- » Protects confidential business information, processes, or formulas that provide a competitive edge.
- » **Duration:** As long as the secret remains undisclosed.
- » **Example:** Coca-Cola's secret recipe, Google's search algorithm.

## Reflective Questions

Find out two examples of each type of IPR and share with the class next week.

## Case Study

### *“Two Friends, One Dream – Registering Their Startup the Right Way”*

#### Characters:

- » Aman – Business-focused, systematic, wants to grow fast
- » Dev – Tech-savvy, detail-oriented, prefers low-cost models
- » Ms. Rao – Commerce teacher and entrepreneurship mentor

#### *Scene 1: The Startup Idea*

Aman and Dev, two final-year commerce students, built a mobile app to help local vendors track daily sales and manage inventory. The app gained traction in their town, and some local businesses even started paying to use it.

Encouraged by this early success, they decided to convert their informal idea into a registered business.

#### *Scene 2: The Dilemma – Partnership vs Private Limited Company*

**Aman:** “If we want to scale and attract investors, we should register as a Private Limited Company.”

**Dev:** “But that involves more legal work and cost. Why don’t we start as a Partnership? It’s simpler and faster.”

They approach Ms. Rao to help them understand both options and the steps involved in registration.

#### *Option 1: Steps to Register a Partnership Firm*

##### *(Under Indian Partnership Act, 1932)*

##### ➔ Step 1: Choose a Name

- » The name should not be too similar to an existing firm or be offensive.

##### ► Step 2: Draft a Partnership Deed

Contains details like:

- » Name of the firm
- » Name and address of partners
- » Capital contribution
- » Profit-sharing ratio
- » Roles and responsibilities
- » Dispute resolution method

► **Step 3: Get the Deed Printed and Notarized**

- » The deed must be printed on a stamp paper of appropriate value and signed by all partners.

► **Step 4: Apply for PAN Card in Firm's Name**

- » A PAN is mandatory for all financial operations.

► **Step 5: Register with Registrar of Firms (Optional but Recommended)**

Submit:

- » Application Form
- » Partnership Deed
- » ID & address proof of partners
- » Fee (varies by state)
- » After verification, the firm is added to the Register of Firms.

## ***Option 2: Steps to Register a Private Limited Company (Under Companies Act, 2013)***

► **Step 1: Obtain Digital Signature Certificate (DSC)**

- » For each director to sign documents electronically.

► **Step 2: Apply for Director Identification Number (DIN)**

- » A unique number for each director issued by the Ministry of Corporate Affairs (MCA).

► **Step 3: Name Reservation via RUN (Reserve Unique Name)**

- » Apply online via the MCA portal
- » Ensure the proposed name is unique and not violating trademarks

► **Step 4: Draft MOA & AOA**

- » **MOA (Memorandum of Association):** Company objectives, name, capital, etc
- » **AOA (Articles of Association):** Internal rules and regulations

► **Step 5: File SPICe+ Form (Simplified Proforma for Incorporating Company Electronically)**

- » Submit to MCA with:
- » PAN & TAN application
- » Proof of registered office
- » Identity/address proof of directors
- » Declaration by professionals (CA/CS)

► **Step 6: Certificate of Incorporation (COI)**

- » Issued by ROC (Registrar of Companies)
- » Contains Corporate Identification Number (CIN)

► **Step 7: Open Bank Account in Company's Name**

- » Use COI and PAN to open a current account

**"Now that you've understood both options, let's reflect:"**

1. Which form would you recommend Aman and Dev to choose?
2. What are the pros and cons of each form?
3. Can they convert from Partnership to Company later?
4. Which steps involve government registration?
5. Why is documentation important in both cases?

*Conclusion:*

In this chapter we have developed our understanding on various important forms of business organization, factors in choosing one best form of business organization and brief knowledge on IPR.



# Make Some Noise: Marketing For Startups



## Learning Outcomes:



After studying this chapter, learners will be able to:

- 1 Discuss the relevance of industry and competitive analysis to the market planning process.
- 2 Describe the role of marketing research in determining marketing strategy for the marketing plan?
- 3 Illustrate an effective and feasible procedure for the entrepreneur to follow in engaging in a market research study.
- 4 Define the steps in preparing the marketing plan?
- 5 Explain the marketing system and its key components?
- 6 Illustrate different creative strategies such as social media that may be used to differentiate or position the new venture's products or services.

## Case Study: The Great Indian Festival Sale 2024 – Amazon Business in Action

### Snapshot

The Amazon Great Indian Festival Sale 2024 is one of the largest e-commerce sales in India, organized annually during the festive season. This year, Amazon has elevated its focus on Amazon Business—a platform that caters specifically to corporate buyers, entrepreneurs, and small business owners.

### Objective

The primary goal of the 2024 sale was to:

- ➔ Increase sales across B2B and B2C sectors
- ➔ Promote bulk buying and corporate discounts
- ➔ Launch new products and categories
- ➔ Provide a seamless and personalized shopping experience for both consumers and businesses

## Key Highlights of the Sale

| Feature                     | Description                                                                      |
|-----------------------------|----------------------------------------------------------------------------------|
| Wide Category Coverage      | Home & Kitchen, Daily Essentials, Electronics, Fashion, Accessories              |
| Bulk Discounts              | Special offers for corporate and business purchases                              |
| New Launches                | Latest gadgets, appliances, and fashion items debuted during the sale            |
| Digital Marketing Campaigns | Social media ads, influencer marketing, and email campaigns                      |
| Seamless UI/UX              | One-click purchasing, GST invoicing, order tracking, and dedicated B2B dashboard |

### Amazon Business Strategy : A Comprehensive Analysis

Amazon aimed to grow its B2B customer base by:

- ➔ Providing GST-compliant invoices
- ➔ Offering business-only prices
- ➔ Allowing bulk purchase options
- ➔ Creating special storefronts for office supplies, IT products, and corporate gifts

#### Anticipated Results Based On Trends

- ➔ 40% increase in business account registrations
- ➔ 70% spike in bulk orders during the sale period
- ➔ Higher conversion rates from personalized offers and early access deals
- ➔ Increased repeat purchases from corporate clients

### Analytical Discussion Prompts

1. What makes festive sales like Amazon's Great Indian Festival successful in India?
2. How does Amazon Business create value for entrepreneurs and small businesses?
3. In what ways does Amazon tailor its marketing strategy for both B2B and B2C customers?
4. If you were a small business owner, what would you buy from Amazon Business during the sale—and why?
5. What are the advantages and challenges of bulk buying in online market places?

## Activity 1



### Title: The Fundamentals of Understanding Market Analysis

**Group Task:** Imagine you are running a startup. You have ₹ 50,000 to spend on Amazon Business during the Great Indian Festival Sale.

- » Create a list of items you would purchase.
- » Justify your purchases in terms of business need, cost savings, and utility.
- » Present your shopping plan to the class.

## Discussion



(Ms. Sharma): Good morning, class! Today, we're going to discuss a very important topic in business studies—Market Analysis. Can anyone tell me what this term means?

Rahul: Ma'am, is it about studying the market before launching a product?



Teacher: Excellent, Rahul! Market analysis is the process of evaluating market conditions to understand the demand, competition, and customer preferences before making business decisions. Now, why do you think it is important?

Aarushi: It helps businesses to understand what customers need and also to identify competitors.



Teacher: Absolutely right! Let's break it down. Market analysis includes:

1. Target Audience
2. Market Size and Growth
3. Competitor Analysis
4. Consumer Behavior
5. Pricing Trends

Let's do a small activity. Imagine you want to open a new online store selling eco-friendly water bottles. What will be your first step in analyzing the market?

Aman: I think I would find out who might buy eco-friendly bottles—like college students or working professionals.



Teacher: Good! That's identifying your target audience. What next?

Sneha: We should check if other companies are already selling similar bottles and what prices they offer.



Teacher: Perfect! That's competitor analysis and understanding pricing trends. Now, how would you collect this information?

Rahul: We could use surveys, visit other websites, or check customer reviews online.



Teacher: Exactly! Tools like Google Trends, surveys, social media polls, and competitor websites help in gathering market data.

Now let's divide into groups. Each group will:

1. Choose a product or service (e.g., custom t-shirts, mobile repair, home-baked snacks)
2. Conduct a mock market analysis using the points we discussed
3. Present your findings to the class

**Collaborative Task Instructions:**

- » Identify your product
- » Define your target market
- » List 2–3 competitors
- » Estimate pricing and potential demand
- » Mention any challenges you might face

**Teacher (Concluding):** Through this activity, you'll learn how market analysis is the backbone of successful business planning. Are you all ready?

Class (Together): Yes, Ma'am!



Now we will discuss about some important Marketing concepts:

## Marketing Research

Marketing Research is defined as a study that consists of multiple techniques used by companies in order to gain more information about their target audience and the current market. Market research helps to gain information regarding current trends, profits, losses, economic and social factors affecting the market, and market strategies used. By utilising the gained information the companies and producers improve the overall quality of their products, their advertisements, and other marketing strategies.



### Essential Market Analyses questions:

- ➔ **Demand:** Is there a desire for your product or service?
- ➔ **Market size:** How many people would be interested in your offering?
- ➔ **Economic indicators:** What is the income range and employment rate?
- ➔ **Location:** Where do your customers live and where can your business reach?
- ➔ **Market saturation:** How many similar options are already available to consumers?
- ➔ **Pricing:** What do potential customers pay for these alternatives?



## Marketing Strategy

A marketing strategy refers to a business's overall plan to convince customers to buy its products or services. A marketing strategy determines how to reach prospective consumers and turn them into buyers. It contains the company's value proposition, key brand messaging, data on target customer demographics, and other high-level elements.

**A thorough marketing strategy covers the four Ps of marketing: Product, Price, Place, And Promotion.**

### A closer look at Core Marketing Strategies:

#### 1. Digital Marketing:

- (a) **Social Media Marketing:** Utilize platforms like Facebook, Instagram, or LinkedIn to engage with your target audience, build brand awareness, and drive traffic to your website.

- (b) Email Marketing:** Build an email list and send out targeted campaigns to promote products, offer discounts, and nurture leads.
- (c) Content Marketing:** Create valuable content like blog posts, videos, or infographics to attract and engage your audience, establish thought leadership, and improve SEO.
- (d) Search Engine Optimization (SEO):** Optimize your website and content to rank higher in search engine results, making it easier for potential customers to find you.
- (e) Paid Advertising:** Run targeted ad campaigns on platforms like Google Ads or social media to reach specific demographics and interests.

## ***2. Traditional Marketing:***

- (a) Print Advertising:** Consider placing ads in local newspapers, magazines, or coupon books to reach a wider audience in your community.
- (b) Direct Mail:** Send postcards, brochures, or letters to potential customers in your target area to promote your business or offer special promotions.
- (c) Local Events and Networking:** Participate in local events like farmers markets, trade shows, or community gatherings to connect with potential customers and build relationships.
- (d) Promotional Items:** Distribute promotional merchandise like pens, keychains, or tote bags to create brand awareness and goodwill.

## ***3. Other Effective Strategies:***

- (a) Referral Programs:** Encourage existing customers to refer new business by offering incentives.
- (b) Loyalty Programs:** Reward repeat customers with discounts, exclusive offers, or other perks to foster loyalty.
- (c) Public Relations:** Seek out media coverage for your business and build relationships with local journalists.

## ***4. Influencer Marketing:***

Partner with relevant influencers to promote your products or services to their audience.

## ***Bringing It To Market : Distribution In Action***

### ***Channels of Distribution***

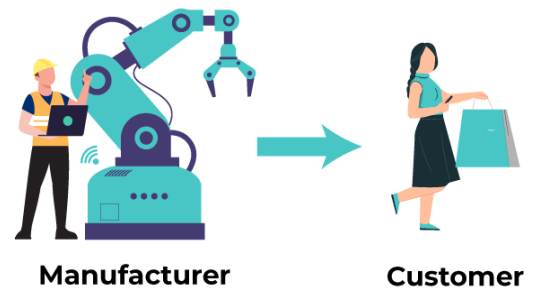
A set of middlemen or intermediaries who help an organisation in the flow of goods and services from the manufacturers to the consumers are known as Channels of Distribution. The intermediaries along with the help in the physical movement of goods, also help in the movement or title or transfer of ownership. The two types of channels of distribution or distribution level are Direct Channel and Indirect Channel.

## Types of Distribution Channels/Level

### 1. Direct Channel (Zero Level)

As the name suggests, a direct channel or zero level is a distribution level through which an organisation directly sells its products to the customers without the involvement of any intermediary.

For example, jewellers use direct channels, Apple sells its products directly to the customers through its stores, Amazon sells directly to the consumers, etc. Some of the most common types of direct channels of distribution are Direct sales by appointing salesmen, through Internet, teleshopping, mail order house, etc.



### 2. Indirect Channels

When a middleman or intermediary is involved in the distribution process, it means the organisation is using Indirect Channels of Distribution. The indirect channels of distribution can be classified into three categories; viz., One Level Channel, Two Level Channel, and Three Level Channel.

#### i) One-Level Channel



One level channel means that there is only one intermediary involved between the manufacturer and the customer to sell the goods. This intermediary is known as a retailer. In simple terms, under one level channel, the organisations supply their products to the retailers who sell them to the customers directly. For example, goods like clothes, shoes, accessories, etc., are sold by companies with the help of a retailer.

#### ii) Two-Level Channel



A most commonly used channel of distribution that involves two intermediaries for the sale of products is known as **Two Level Channel**. The intermediaries involved are wholesalers and retailers. The producer sells their products to wholesalers in bulk quantity, who sells them to small retailers, who ultimately supply the products to the customers. This channel is generally used to sell convenient goods like soaps, milk, milk products, soft drinks, etc.

For example, Hindustan Unilever Limited sells its goods like detergent, tea leaves, etc., through wholesalers and retailers.

### iii) Three-Level Channel



Three level channel means that there are three intermediaries involved between the manufacturer and the customer for the sale of products. The three intermediaries involved are Agent Distribution, Wholesalers, and Retailers. It is usually used when the goods are distributed across the country and for that different distributors are appointed for different areas. For example, wholesalers purchase goods from different distributors, like North India Distributors and then pass the goods to the retailers, who ultimately sell the goods to customers.

## Product launch

A product launch is the process of bringing a new or updated product to market. The product launch process involves a series of steps to introduce the product to potential customers and make it available for purchase by the launch date. A well-executed product launch can strategically position the product in the market and create demand, leading to greater brand recognition and product sales.



## Successful Product Launches Across Industries

### Under Armour : Powering Performance (performance sports clothing brand)

To support the launch of the HOVR Infinite shoe, Under Armour wanted to scale its product testing to get actionable insights, faster. The problem was that Under Armour only had 100 product testers and they didn't have enough representation across the countries it operated in.

With a centralised directory on the Qualtrics platform, Under Armour quickly went from about 100 product



testers to over 10,000 and had greater representation across the globe. This helped shorten the feedback loop, enabling Under Armour to conduct more rounds of testing than ever before and refine the HOVR cushioning platform quickly.

The testing helped to make a product that professional runners were praising in glowing terms. Within weeks of its product launch to the public, the HOVR Infinite received a 2019 Runner's World Recommendation Award.

## Yamaha : Where Innovation Meets Performance



When you want your products to be as innovative as the artists who use them, you need an insight platform that's fast and flexible enough to put the customer's voice into every step of your product launch process.

Using Qualtrics, Yamaha runs hundreds of quick-turn studies during product development to ensure they catch potential product misfires before prototypes hit the development floor — or the finished product goes to market.

They use Qualtrics' survey capabilities to survey customers, receiving rich, detailed feedback and insight in a matter of hours — something that might've taken a week or more to deploy and discuss internally.

Now, they're able to conduct projects and continue producing amazing products with incredibly fast turn around times.

## Pitching of a Product : Pitching Strategies and Techniques

You have a great idea for a new product or service that can solve a problem, create value, or satisfy a need for your target market. But how do you convince potential customers, investors, or partners to buy in? Pitching a new product or service is a crucial skill for any business developer, but it can also be challenging and stressful.



Reaching out via email is not the same as making a cold call or answering someone's "So what do you do?" in-person question at an expo. You need to adapt your sales pitch to each of these situations. Different Sales Pitch Approaches:

- ➔ Elevator pitch or in-person pitch
- ➔ Email pitch
- ➔ Phone pitch
- ➔ Social media pitch
- ➔ Video pitch



### *Market Feasibility Study*

A market feasibility study in marketing evaluates the potential success of a new product, service, or business idea by assessing its viability in a specific market. This involves analyzing customer needs, market demand, competitive landscape, pricing strategies, and potential marketing channels. The goal is to determine if the project is economically feasible and has a high likelihood of success.

### *Core Components of a Market Feasibility Study:*

- » **Market Analysis:** This involves defining the target audience, understanding their needs and preferences, analyzing market size and growth potential, and identifying potential distribution channels.
- » **Competitive Analysis:** Assessing the existing competition, their strengths and weaknesses, and how the proposed product or service can differentiate itself.
- » **Financial Analysis:** Evaluating the costs and returns of the project, including investment requirements, projected revenues, and profitability.
- » **Technical and Operational Feasibility:** Determining if the product or service can be developed and delivered efficiently and effectively.
- » **Legal and Regulatory Considerations:** Ensuring compliance with relevant laws and regulations.
- » **Risk Analysis:** Identifying potential risks and challenges, and developing strategies to mitigate them.
- » **SWOT Analysis:** Analyzing the project's strengths, weaknesses, opportunities, and threats.

## *Blinkint Marketing Strategy : A case Study is Rapid grocery Delivery Success.*

### *Introduction*

Blinkit formerly known as grofers operates on the concept of quick commerce, aiming to deliver groceries

and daily essentials within 10 minutes

### ► *Objectives of Blinkit's Marketing Strategy*

- ➔ Increase brand awareness among target users.
- ➔ Drive user acquisition and engagement on the platform.
- ➔ Create a loyal community that promotes organic growth.
- ➔ Differentiate Blinkit from competitors in the digital space.

### *Market Segmentatio And Target Audience*

#### ► **Blinkit targets primarily:**

- ➔ Age group: 18-35 years.
- ➔ Tech-savvy, social media active users.
- ➔ Urban and semi-urban locations with good internet penetration.
- ➔ Users looking for [Rapid Delivery].

### *Marketing Strategy Components*

#### **1. Digital-First Approach**

Blinkit's marketing focuses heavily on digital channels, including:

- » **Social Media Marketing:** Active presence on Instagram, Facebook, Twitter, and LinkedIn with targeted campaigns and influencer collaborations.
- » **Content Marketing:** Blogging, video tutorials, and user-generated content encourage engagement and improve SEO.
- » **Paid Advertising:** Use of PPC ads, sponsored posts, and retargeting campaigns to drive traffic and conversions.

#### **2. Influencer Partnerships**

##### ► **Blinkit partnered with micro and macro influencers relevant to its niche to:**

- » Showcase authentic use cases.
- » Reach niche audiences efficiently.
- » Create buzz around new features or promotions.

### 3. Referral and Loyalty Programs

- » To boost user acquisition and retention, Blinkit introduced referral incentives where users earn rewards for inviting friends. Loyalty programs with badges, exclusive content, or discounts encourage continued usage.

### 4. Community Building

#### ► Blinkit invested in building an interactive community by:

- » Hosting virtual events and webinars.
- » Encouraging user feedback and feature requests.
- » Running contests and challenges to keep users engaged.

### 5. Data-Driven Personalization

- » Blinkit uses user data and analytics to personalize marketing messages, recommend relevant content, and optimize user experience, increasing engagement and reducing churn.

#### *Results Achieved*

- » **User Base Growth:** Grew by 200% within the first 12 months of the campaign.
- » **Engagement Rate:** Increased average session duration by 35%.
- » **Referral Impact:** 40% of new signups came from referral programs.
- » **Brand Recognition:** Social media mentions and followers increased by over 300%.

#### *Challenges Faced*

- » High competition in the digital space with many similar platforms.
- » Initial user skepticism regarding privacy and data security.
- » **Maintaining engagement in a fast-evolving tech environment.**

#### *Lessons Learned*

- » Influencer authenticity matters more than reach.
- » Community feedback is crucial for iterative improvement.
- » Combining organic and paid strategies maximizes reach and engagement.

#### *Closing Reflection*

Blinkit's marketing strategy exemplifies how a well-rounded, digital-first approach combined with

community focus and data-driven personalization can effectively build brand presence and user loyalty in a competitive market.

### *Comprehension Questions*

1. What is the primary objective of Blinkit's marketing strategy?
2. Who is the target audience of Blinkit?
3. Name at least three digital marketing tactics used by Blinkit.
4. What role did influencer partnerships play in Blinkit's growth?
5. How did Blinkit encourage community building?

### *Key Analytical Questions*

6. Why do you think Blinkit focused on a digital-first approach instead of traditional media?
7. Analyze how referral and loyalty programs helped Blinkit retain users.
8. What was the impact of using data-driven personalization on user engagement?
9. What challenges did Blinkit face in implementing its marketing strategy?

### *Application Questions*

10. Imagine you are the marketing manager of a new app like Blinkit. Which two strategies from Blinkit would you adopt and why?
11. Design a basic influencer campaign for Blinkit targeting college students.
12. Suggest one improvement to Blinkit's loyalty program that could further boost user retention.

### *Explore and Debate*

13. Was relying heavily on social media marketing a risk for Blinkit? Why or why not?
14. In what ways can data privacy concerns impact Blinkit's marketing success?
15. How can Blinkit continue to grow in a market with increasing competition from global apps?

### *Strategic Insights*

Marketing is a critical component of any successful business strategy, but it is especially important for startups. As a new company entering a competitive industry, startups need to prioritize their marketing efforts in order to effectively promote their products or services and attract customers.

At its core, marketing is about understanding and connecting with your target audience. Startups need to establish their brand identity and communicate their unique value proposition in order to differentiate themselves from competitors. A strong marketing strategy can help startups build brand awareness, establish credibility, and create a loyal customer base.

## Summary

In summary, marketing is essential for startups to establish their brand identity, increase visibility, and generate revenue. By investing in marketing, startups can effectively communicate their unique value proposition, build customer relationships, and drive business growth. Whether through social media, content marketing, email campaigns, or other channels, startups must leverage marketing to achieve their business goals and succeed in the competitive startup landscape.

# 9

## TOOLS (AI etc.)



### Learning Outcomes:

After studying this chapter, learners will be able to:

1. Discuss the importance of AI in Startups.
2. Find out various AI tools for Startups.
3. To understand the use of different software's like MS Word MS Excel Etc.



*Artificial intelligence (AI) is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy.*

### MACHINES THAT THINK

#### HOW AI IS CHANGING OUR LIVES



#### IMAGINE

A doctor using AI to detect cancer early



A student getting personalized learning support



Business using AI to recommend products and enhance customer service.





Farmers using drones and sensors powered by AI to monitor crops

Will AI take over jobs? Can machines make fair decisions?  
How do we ensure AI is used for good?

To explore these ideas, let's join Ms. Sharma and her curious students in a classroom discussion about the use, importance of AI in today's world

## The Situation Unfolds



### Opening Case: Understanding the Power of AI in Today's World

#### Title: "Machines That Think: How AI Is Changing Our Lives"

In a world driven by technology, Artificial Intelligence (AI) is no longer just a science fiction idea—it is a powerful reality that is shaping the way we live, learn, work, and interact. From voice assistants like Siri and Alexa to self-driving cars and smart healthcare systems, AI is quietly becoming part of our daily lives.

Imagine a doctor in a small town using AI to detect cancer early in a patient, or a student getting personalized learning support through an intelligent app. Businesses use AI to recommend products, predict trends, and enhance customer service. Farmers use drones and sensors powered by AI to monitor crops and increase yield.

Yet, as AI advances, it brings with it important questions—Will AI take over jobs? Can machines make fair decisions? How do we ensure AI is used for good?

To explore these ideas, let's join Ms. Sharma and her curious students as they dive into a lively classroom discussion about the use and importance of AI in today's world.

## Discussion

### Title: Classroom Dialogue on the Use of AI

Use and Importance of Artificial Intelligence (AI) in Today's World



**Teacher (Ms. Sharma):** Good morning, class! Today we're going to talk about something that is changing our world rapidly—Artificial Intelligence, or AI. Can anyone tell me what AI is?

**Rahul:** Isn't AI where machines can think or act like humans?



**Teacher:** Exactly, Rahul! AI allows machines to simulate human intelligence processes like learning, problem-solving, and decision-making. Now, let's explore a real-life example. Have any of you heard of IBM Watson?

**Priya:** Yes! Isn't that the AI system that helps doctors?





**Teacher:** Correct! IBM Watson is an AI-powered system that helps doctors diagnose diseases more accurately by analyzing medical data. It can read and understand thousands of medical papers in seconds—something a human doctor could take years to do.



**Arjun:** Wow! So AI is like a super assistant for doctors?



**Teacher:** You could say that! It helps in early diagnosis, suggesting treatment options, and saving lives. Now, AI is not only in healthcare. Can you guess where else it is used?



**Sneha:** Is it used in online shopping?



**Teacher:** Great observation, Sneha! Platforms like Amazon use AI to suggest products based on your past behavior. It's called predictive analytics. AI also helps in managing inventory, chatbots for customer service, and even fraud detection in banking.



**Karan:** Are self-driving cars also an example of AI?



**Teacher:** Absolutely! Tesla and other companies are using AI in self-driving cars to detect traffic signals, pedestrians, and other vehicles. These cars learn from data to improve safety and navigation.



**Rahul:** But if AI is doing everything, won't people lose their jobs?



**Teacher:** That's a valid concern, Rahul. AI can replace some repetitive jobs, but it also creates new opportunities in programming, data science, AI ethics, and machine maintenance. So, it's more about reskilling and adapting.



**Priya:** Are there any dangers with AI?



**Teacher:** Yes, there are challenges. AI can show bias if trained on biased data, it can invade privacy, and humans may become too dependent on it. That's why ethical AI development is very important.

**Arjun:** What about the future of AI?



**Teacher:** Great question! In the future, AI will help in climate monitoring, education personalization, and even in space exploration. But it's up to us to use it wisely and ethically.

**Sneha:** This is amazing! Can we learn how to use AI?



**Teacher:** Of course! Many platforms offer AI courses for beginners. Learning how AI works will not only help you understand the world better but also prepare you for future careers.

**Class:** Thank you, Ma'am! We're excited to learn more!



**Teacher:** I'm glad to hear that! Remember, AI is a tool. In the right hands, it can transform the world for the better.

## Activity 1



**Activity Title:** "AI Start-Up Challenge – Innovate with Intelligence"

**Objective:**

To help students understand how Artificial Intelligence can be used to solve real-world problems in entrepreneurship and start-up culture.

**Justify:**

- ➔ Understand how AI can support and transform entrepreneurship
- ➔ Learn how to identify problems and think critically
- ➔ Gain exposure to the real-world business environment and technology integration

**Duration:**

60–90 minutes (can be adjusted)

### **Materials Needed:**

- ➔ Chart paper or PowerPoint (for presentations)
- ➔ Internet access (optional)
- ➔ Markers/pens
- ➔ Worksheet (optional, can be provided)

### **Instructional Guidelines**

***Step 1: Divide Students into Small Teams (3–5 members each)***

***Step 2: Problem Solving with AI***

Each team will choose or be assigned a real-world problem that can be solved using AI. For example:

- ➔ Managing inventory for small businesses
- ➔ Predicting customer preferences
- ➔ Automating customer support
- ➔ AI in agriculture for farmers
- ➔ AI in waste management or water-saving solutions

***Step 3: Develop a Start-Up Idea***

**Students will brainstorm and answer:**

1. What is the problem they are solving?
2. What is the AI-based solution?
3. Who are the target users?
4. How will the business generate revenue?
5. What are the advantages of using AI in this idea?

***Step 4: Present the AI Start-Up Idea***

Each group presents their AI-powered business idea in 3–5 minutes, using a chart, role-play, or PPT. Encourage creativity in storytelling and demonstration.

### Scoring Criteria (if assessed):

- ➔ Creativity and originality
- ➔ Practical use of AI
- ➔ Teamwork
- ➔ Presentation clarity
- ➔ Problem-solution fit

### Extension / Homework (Optional):

Ask each student to research a real startup (like ChatGPT, Grammarly, or Tesla) that uses AI and submit a one-page summary on how AI is used in their model.

## Essential Tools for startups

### 1. Artificial Intelligence

AI refers to the ability of machines to perform cognitive tasks like thinking, perceiving, learning, problem solving and decision making. Initially conceived as a technology that could mimic human intelligence, AI has evolved in ways that far exceed its original conception. With incredible advances made in data collection, processing and computation power, intelligent systems can now be deployed to take over a variety of tasks, enable connectivity and enhance productivity. As AI's capabilities have dramatically expanded, so have its utility in a growing number of fields.



### Examples of Artificial Intelligence

1. Maps and Navigation
2. Facial Detection and Recognition
3. Text Editors or Autocorrect
4. Search and Recommendation Algorithms
5. Chatbots
6. Digital Assistants

7. Social Media

8. E-Payments

9. Weather Forecasting

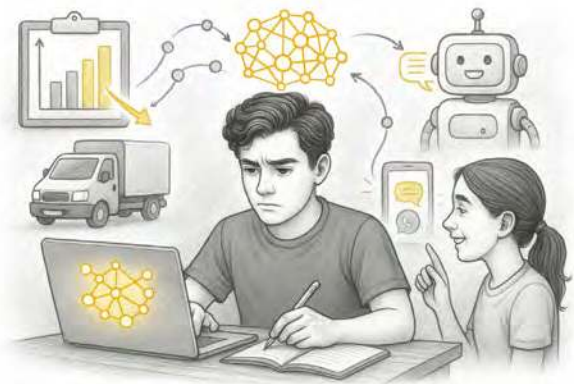
10. Music Mastering

AI technologies employed by startups for enhanced operational efficiency Various AI technologies are used by startups to address their unique needs and challenges. Key AI technologies that are frequently employed by startups include:

## 2. Machine Learning (ML)

For startups, machine learning (ML) is a crucial technology that is used in many different departments and operations. Predictive analytics in marketing uses machine learning (ML) techniques like supervised learning to help startups target and optimize their ad campaigns. ML algorithms in sales improve lead scoring and CRM, which increases the productivity of sales teams. Chatbots that use machine learning (ML) and natural language processing (NLP) offer

round-the-clock customer support. Startups in operations use unsupervised learning to enhance workflows such as supply chain optimization and inventory management. Startups also use machine learning (ML) for financial forecasting, utilizing algorithms to examine past data and make informed decisions. Because of ML's flexibility and adaptability, startups can automate processes, obtain insights, and improve their competitiveness with this indispensable tool.



## 3. Natural Language Processing (NLP)

For startups, natural language processing, or NLP, is a game-changing technology that is applied to various departments and operations. NLP-enabled chatbots in customer service interact with clients, respond to their questions, and offer prompt help, improving user experiences and speeding up response times. NLP sentiment analysis in marketing aids in determining consumer opinions, modifying messaging, and enhancing brand perception for startups. NLP algorithms produce text that appears human when creating content, which helps with content generation automation for emails, blogs, and product descriptions. NLP is also used for text summarization, which aids startups in gleaning important details

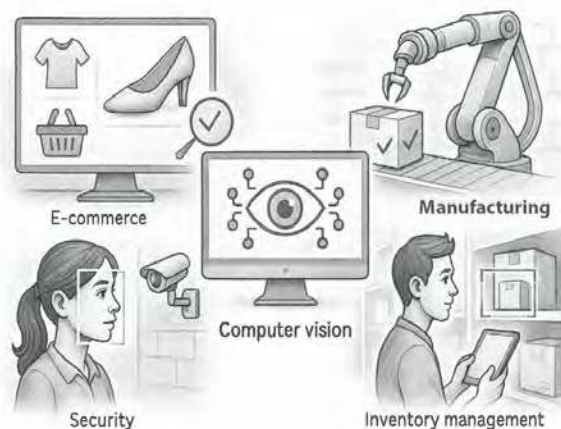
and insights from massive amounts of data. With the help of this adaptable technology, startups can streamline marketing campaigns, automate correspondence, and streamline content production while delivering more personalized and efficient services to customers.



## 4. Computer vision

For startups, computer vision is a game-changing technology that can be applied to a wide range of departments and operations. Startups in the e-commerce space use image recognition algorithms to enhance the management of product catalogs and provide customers with visual search capabilities. Computer vision algorithms are used in manufacturing and quality control to identify defects and guarantee the quality of the final product. Facial recognition technology improves surveillance and access control systems

for security. Object detection helps inventory management, which helps startups maximize stock levels. Computer vision's capacity to decipher visual data enables startups to improve user experiences, automate quality assurance, strengthen security, and expedite logistics — all of which contribute to increased productivity and innovation across a range of industries.



## 5. Deep learning

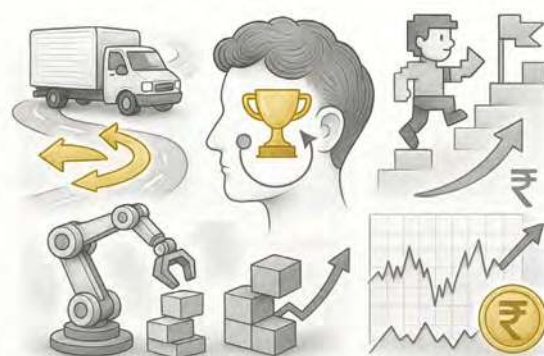
Deep learning has applications in many departments and operations, making it a valuable tool for startups. Startups employ deep learning methods, such as Convolutional Neural Networks (CNNs), in customer-facing applications to recognize speech and images. This improves user experience and makes features like voice assistants and image analysis possible. Deep learning aids in the diagnosis of diseases from

medical imaging and the prediction of patient outcomes in the healthcare industry. Recurrent neural networks (RNNs) are also used by startups for predictive maintenance in manufacturing and time series data analysis in finance. Startups in industries ranging from tech and healthcare to finance and manufacturing can drive innovation by automating tasks, gaining deeper insights, and leveraging deep learning's capacity to process large and complex data sets.

## 6. Reinforcement learning

Another innovative technology that startups are using in many different departments and operations is reinforcement learning (RL). RL algorithms aid in the optimization of delivery vehicle routes in logistics and supply chain management, lowering expenses and boosting productivity. Startups in the gaming sector use reinforcement learning to develop intelligent non-player characters and improve gameplay.

Moreover, RL supports trading tactics, risk management, and portfolio optimization in the financial industry. Robotics startups can create autonomous systems that can adapt and learn in changing



environments thanks to reinforcement learning. Because of its flexibility and capacity for self-improvement, reinforcement learning (RL) is a useful tool for startups that want to innovate across a range of industries, improve decision-making processes, and automate difficult tasks.

## Emerging AI adoption in Business

### 1. Zomato

Blinkit, the quick commerce platform of Zomato has introduced a new feature called 'Recipe Rover' driven by the most popular AI models ChatGPT and Midjourney. Recipe Rover works by displaying multiple recipes related to the food item that a customer searches for in the application. The company also plans to integrate generative AI into product photography, customer support, etc. Zomato has huge customer data at its disposal which can be put to use to create more customer-friendly features in the future.



### 2. Swiggy

If Zomato is using AI primarily to generate recipes, its biggest competitor Swiggy is using it to fine tune search results. Swiggy will use AI to respond to specific food-related terms and queries. The feature will also support voice queries. The company also plans to integrate this into its commercial platform, Swiggy Instamart. Swiggy is also planning to use generative AI to help restaurants and delivery partners for faster issue resolution.



### 3. Policybazaar

The leading insurance tech company in the country has been using AI tools for fraud detection using an AI-based risk framework that checks for liveliness and avoids deep fakes. It also uses AI tools for motor vehicles inspection where the customer can make a video of the vehicle and upload it while the AI does the damage assessment. The company has also developed technologies for voice to text conversion which can be used to gather consumer data and be used to assess consumer behavior. However, this falls into the category of 'predictive' AI, not 'generative' AI.



## 4. MakeMyTrip

MakeMyTrip, one of India's leading travel booking companies has collaborated with Microsoft to use generative AI to introduce voice-assisted booking in Indian languages. It will help the user by offering personalized travel recommendations based on their preferences, curating holiday packages and booking them.



## 5. HealthifyMe

HealthifyMe, a leading fitness app in the country has come up with a new AI powered virtual nutritionist, 'Ria'. It also plans to incorporate generative AI into its product for nutritionists and trainers to provide personalized advice and increase productivity.



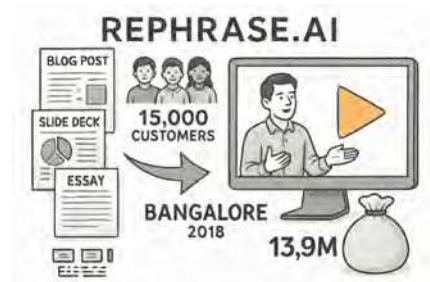
## 6. Reliance Industries

Reliance Industries has partnered with graphics chip maker NVIDIA to develop supercomputing data centers for AI applications. They are focusing on using AI in regional Indian languages. According to a recent report from JM Financial Securities, RIL is committed to create up to 2,000MW of AI computing capacity.



## 7. Rephrase.AI

Rephrase.AI is a Bangalore based that allows you to create video content from text. It was launched in 2018 and can work with inputs like blog posts, slide deck and essays. According to reports, the company has around 15,000 customers and has been able to raise 13.9 million USD so far.



## 8. Blend

Blend is an image and design editing app that uses generative AI technology to generate images instantly. Founded in 2021, it is mainly used by ecommerce merchants to create and edit professional product visuals in less than a minute. The content produced by Blend is mostly used in social media and digital ad campaigns.

## 9. InsurStaq

InsurStaq uses AI technology to help ordinary users buy insurance by providing information about various insurers and their products. The app offers data-backed advice, insights from existing policies, and personalized recommendations for new policies.



## 10. Fasthr

Fasthr is like an AI-based HR person sitting next to you. It can screen applicants by interviewing them and evaluating their responses on various criteria.

## 11. Dubverse

Dubverse is a generative AI platform for voice and video creators, founded in 2020. It provides solutions such as subtitling, voice substitution, and video recreation. It allows users to use voices in various languages and voices, lip-sync videos, and subtitle videos.



## 12. Zpod

Zpod is a recent generative AI startup that generates creative ideas from online articles and other sources for linkedin posts.

## 13. IT Majors

Most of India's IT services companies, such as TCS and Infosys, have partnered with AI providers such as OpenAI, and Google to launch AI solutions to their client companies and enterprises. All these players are also training their workforce on AI technologies.

One of the standouts in this area is Tech Mahindra, which has a generative AI studio that will have text, code, image, video, audio and data generation capabilities. It has also started using AI tools for internal purposes such as HR, marketing, and customer servicing.





## ***“Startup Document Master – MS Word in Action!”***

**Objective:** To help students understand how MS Word can be used in a startup environment to create essential business documents.

### **Learning Outcomes:**

Students will learn how to:

- » Use MS Word for professional communication
- » Apply formatting tools to enhance visual presentation
- » Understand the practical applications of documentation in startups

### **Duration:**

1 periods (45 minutes )

### **► Instructions:**

#### ***Step 1: Form Teams***

Divide the class into small startup teams (3-4 students each). Each team will act as a startup launching a product/service of their choice.

#### ***Step 2: Define Your Startup***

Each team will choose or create:

- » A startup name
- » A product or service idea
- » A target customer group

#### ***Step 3: Use MS Word to Create Key Documents***

***Each team must create the following 3 documents using MS Word:***

1. Business Proposal (1 page) Include:

- » Startup name and logo (Insert Picture/Shapes)
- » Mission statement
- » Brief description of the product/service
- » Market need/problem it solves

## 2. Marketing Flyer (1 page)

- » Use smart art, text boxes, bullets, and borders
- » Add images, catchy slogans, pricing (if any), and contact details

## 3. Meeting Agenda (for a Team Meeting)

- » Include table for schedule
- » Use heading styles for sections
- » Add bullet points for discussion topics

### *Step 4: Presentation*

Each team will present their documents and explain how MS Word helped them in designing and formatting professional business content.

#### ► Assessment Rubric (20 points)

| Criteria                       | Points |
|--------------------------------|--------|
| Creativity and originality     | 5      |
| Effective use of MS Word tools | 5      |
| Relevance to startup context   | 5      |
| Team presentation skills       | 5      |

### *Conclusion:*

AI empowers startups to innovate, streamline processes, and create impactful solutions. Most startups are evaluating technologies across Artificial Intelligence, Machine Learning, Large Language Models (LLM), Generative AI, DeepTech, IoT and Blockchain to meet increasing customer requirements, improving customer experiences and bringing efficiency in operations. However, to address the ethical challenges and risks posed by AI, a responsible and sustainable approach with ethical practices and a robust legal mechanism is required.

# 10

## Why Startups Fail ?



### Learning Outcomes:



After studying this chapter, learners will be able to:

- ➔ Find out the deeper reasons why startups fail despite having good ideas?
- ➔ Discover how decision-making, market understanding, leadership, and adaptability determine startup survival?
- ➔ Reflect on real-life startup failures and what entrepreneurs can learn from them.
- ➔ Participate in interactive activities to analyze failed startups and develop problem-solving skills.

### Introduction

Not every startup becomes a unicorn. In fact, most fail. According to global reports, nearly 90% of startups shut down within the first five years. But failure isn't the end—it's a lesson in disguise.

While younger entrepreneurs often learn by doing, smart entrepreneurs learn by studying, why others failed? The goal is not to fear failure but to understand it, analyze it, and rise stronger.

#### Why Startups Fail – Going Beyond the Surface

Here are some critical reasons behind startup failures with real examples:

#### 1. No Real Demand (Product–Market Mismatch)

**Concept:** Building a product or service without a proven demand leads to poor adoption and eventual shutdown. **Example:** Hike Messenger

- ➔ **What went wrong:** Launched as India's answer to WhatsApp with desi features like stickers, offline messaging, and privacy settings, Hike gained initial traction. But over time, it failed to sustain user interest as WhatsApp continuously evolved and remained simpler and more reliable.
- ➔ **Lesson:** Hike underestimated the user preference for simplicity and overestimated the need for an "Indianised" social platform.

## 2. Burning Cash Without Strategy

Spending heavily on advertising, employee benefits, and expansion without a core loyal user base or revenue model.

**Example: TinyOwl**

- ➔ **What went wrong:** TinyOwl, a food delivery startup, raised over \$27 million. But it expanded too fast across cities without stabilizing operations in one location. It offered heavy discounts to attract users but failed to retain them once offers ended.
- ➔ **Lesson:** Spending without a sustainable business model or operational readiness can cause rapid burn-out.

## 3. Lack of Feedback and Iteration

Ignoring or delaying product changes based on user feedback leads to dissatisfaction and loss of relevance

**Indian Example: Lido Learning**

- » **What went wrong:** EdTech startup Lido Learning focused on small group online tutoring for school students. It raised significant funding but failed to adapt its pricing and content based on feedback from Indian middle-income families, who found it expensive and lacked trust in the model.
- » **Lesson:** In education, understanding the needs and expectations of parents and students is crucial for long-term retention.

## 4. Weak Leadership and Team Conflicts

**Concept:** A promising idea needs transparent and ethical leadership. Dysfunctional teams or authoritarian founders often lead to collapse.

**Indian Example: Housing.com**

- » **What went wrong:** Founded by IIT-Bombay students, Housing.com grew rapidly under founder Rahul Yadav. But Yadav's controversial public behaviour and conflict with the board led to his ousting. The company lost focus and investor's confidence.
- » **Lesson:** Vision without professionalism and ego-driven leadership can derail even the most innovative startups.

## 5. Scaling Too Early

**Concept:** Expanding too fast before perfecting the core product or model leads to quality and service failures.

**Indian Example: Stayzilla**

- » **What went wrong:** Stayzilla was among India's earliest homestay platforms. It tried to scale aggressively to compete with OYO and Airbnb. However, it lacked a clear focus on vendor verification, customer support, and sustainable partnerships.

- » **Lesson:** Rapid expansion without solid backend systems, vendor trust, and clarity of market can lead to operational chaos.

## From Reality to Wisdom : True Stories, Real Lessons

### 1. Henry Ford (USA)

Before launching Ford Motors, Henry Ford failed in two businesses. But he learned from mistakes and focused on efficiency, cost control, and mass production. His third attempt revolutionized the automobile industry.



### 2. Vineet Rai – Aavishkaar (India)

Vineet Rai faced rejection when he wanted to fund rural businesses. But he didn't give up. Today, Aavishkaar has invested in over 60+ impact-driven startups, proving that social innovation can also be profitable.



## Insight Worth Nothing

A startup doesn't just fail because of a bad idea. It may fail due to poor timing, wrong decisions, or the inability to adapt. Great entrepreneurs don't blame others—they ask what went wrong and try again smarter.



### Reflection Prompt

1. Why do you think most startups fail in the early stages?
2. Which is more important: a great idea or a great team? Why?
3. If your own startup fails, what would you do next?

## Wrapping Up

Failure in the startup world is not shameful—it's common. What matters is how entrepreneurs respond to failure. They study it, learn from it, and use the insights to build better solutions.

Remember, even the best ideas may not work at first. But those who learn from failures often build the most successful ventures later.

### Disclaimer

All stories in this NEEEV (Teacher's Manual) are related to the events of real people. In some cases, timelines or other elements may be slightly different from the actual experiences of entrepreneurs of the featured. The purpose of these stories and activities is to highlight specific aspects of their journey by which the students get motivated and inspired. The stories have been chosen for educational purposes only and should not be seen as an endorsement for any entrepreneur or their venture. The State Council of Educational Research and Training (SCERT) may not be held responsible for condoning any legal issues, defaults, or controversial work by an entrepreneur or their company. Considering the objectives of the curriculum, intentionally, simple conversational language is used. Readers are requested to not pay attention to the conformity to standard form of the language.

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