

National Conference on  
**THE ENTREPRENEUR EDGE**  
Startups Shaping Tomorrow

10th March, 2026

Chief Editorial  
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Speical Issue I (March - 2026)

*Organise By*

Department of Integrated Professional Programmes  
KPB Hinduja College of Commerce (Autonomous)



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**on**  
**The Entrepreneur Edge**  
*Startup Shaping Tomorrow*

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## Forward

### *From the Chief Editor's Desk*

It is with great pride and anticipation that we present the proceedings of the National Conference on “The Entrepreneur Edge: Startups Shaping Tomorrow.” This conference arrives at a pivotal moment in our global and national journey, where innovation, resilience, and entrepreneurial spirit are redefining the contours of progress. Startups today are not merely business ventures; they are dynamic engines of transformation, catalyzing change across industries, economies, and societies.

The theme of this conference underscores the critical role that startups play in shaping a sustainable and inclusive future. From harnessing emerging technologies to addressing grassroots challenges, entrepreneurs are bridging gaps that once seemed insurmountable. They embody agility in uncertainty and vision in complexity, creating solutions that are not only disruptive but also deeply impactful.

This compilation reflects a diverse spectrum of ideas, research insights, case studies, and practical experiences shared by scholars, industry leaders, policymakers, and innovators. Each contribution adds a unique perspective to the evolving narrative of entrepreneurship, emphasizing collaboration, adaptability, and forward-thinking strategies. Together, they form a rich tapestry of knowledge that will inspire both current and aspiring entrepreneurs.

We extend our sincere gratitude to all contributors, reviewers, and organizing members whose dedication and intellectual rigor have made this conference a meaningful platform for dialogue and discovery. Their collective efforts ensure that this volume is not just a record of discussions, but a source of inspiration for future endeavors.

As we turn these pages, we invite readers to engage critically with the ideas presented, to question assumptions, and to envision new possibilities. The future belongs to those who dare to innovate, and this conference stands as a testament to that enduring spirit.

We hope this compilation will serve as a valuable resource and a guiding light for those committed to shaping tomorrow through entrepreneurial excellence.

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# A STUDY ON PRACTICAL WORK EXPERIENCE AND OPERATIONAL LEARNING UNDER MANAGERIAL SUPERVISION IN THE MANUFACTURING SECTOR

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## ABSTRACT

The manufacturing sector plays a vital role in the economic development of a country by producing goods, creating employment opportunities, and contributing to industrial growth. Efficient manufacturing operations require not only advanced machinery and technology but also skilled employees who can manage day-to-day operational activities effectively. Practical work experience and operational learning under managerial supervision are therefore essential for developing the required skills and competencies among employees.

This study aims to analyze how practical workplace exposure and managerial guidance influence operational learning in the manufacturing sector. Through practical experience, employees gain insights into production processes, workflow coordination, quality control, and team collaboration. Managerial supervision plays an important role in guiding employees, improving productivity, and ensuring smooth operational functioning.

The findings of the study suggest that practical learning combined with managerial support helps employees improve their efficiency, develop problem-solving abilities, and contribute effectively to organizational performance in manufacturing organizations.

**Keywords:** Manufacturing sector, operational learning, practical work experience, managerial supervision, workplace training.

## 1. INTRODUCTION

The manufacturing sector is one of the most significant contributors to industrial development and economic progress. It involves converting raw materials into finished goods through systematic processes, machinery, and skilled labour. For manufacturing organizations to operate efficiently, employees must possess practical knowledge and operational skills that enable them to perform tasks effectively within the production environment.

Practical work experience plays a crucial role in helping individuals understand the real-world functioning of manufacturing operations. Through hands-on training and workplace exposure, employees learn about production planning, machine operations, inventory management, quality control, and safety procedures.

Managerial supervision further enhances the learning process by providing guidance, monitoring performance, and ensuring that operational standards are maintained. Managers act as mentors who help employees understand operational workflows, solve problems, and develop professional skills required in manufacturing environments.

Therefore, studying practical work experience and operational learning under managerial supervision helps in understanding how manufacturing organizations develop skilled employees and improve operational efficiency.

## 2. OBJECTIVES

- To understand the importance of practical work experience in the manufacturing sector.
- To examine how managerial supervision influences operational learning among employees.
- To analyze the role of day-to-day operational activities in improving employee performance.
- To suggest strategies that manufacturing organizations can adopt to improve operational training and workforce efficiency.

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### 3. RATIONALE

The manufacturing sector requires employees who possess both theoretical knowledge and practical skills to perform operational tasks efficiently. While academic knowledge provides a conceptual understanding of production processes, practical experience helps individuals apply that knowledge in real-world situations.

Understanding operational learning under managerial supervision is important because managers play a key role in guiding employees, monitoring their work, and ensuring that operational standards are maintained. Through proper supervision and training, employees can develop technical skills, improve productivity, and contribute to organizational success.

This study therefore focuses on understanding how practical workplace exposure and managerial guidance help employees develop operational competencies in manufacturing organizations.

### 4. LITERATURE REVIEW

#### Practical Training and Employee Performance

Several studies highlight the importance of practical training in improving employee productivity in manufacturing industries. Hands-on experience allows employees to develop technical expertise, understand machinery operations, and maintain quality standards.

#### Managerial Supervision and Operational Efficiency

Research shows that managerial supervision significantly influences employee performance. Managers provide instructions, monitor work processes, and ensure that employees follow operational procedures correctly. Effective supervision improves efficiency and reduces operational errors.

#### Workplace Learning in Manufacturing

Workplace learning in manufacturing environments involves observing experienced workers, practicing tasks, and receiving feedback from supervisors. Such learning helps employees understand production workflows and develop problem-solving skills.

#### Employee Skill Development

Studies also indicate that organizations that focus on employee skill development through practical training and supervision experience higher productivity, better quality output, and improved operational efficiency.

### 5. METHODOLOGY OF STUDY

#### 1. Purpose of Research

The purpose of this study is to analyze the importance of practical work experience and operational learning under managerial supervision in manufacturing organizations.

#### 2. Research Design Used

The study uses a descriptive research design to examine workplace learning and operational activities in manufacturing environments.

#### 3. Population

Employees, supervisors, and trainees working in manufacturing organizations form the population of the study.

#### 4. Sample Size

A sample of employees working in manufacturing units was selected for collecting responses and insights.

#### 5. Sampling Method

A convenience sampling method was used to collect responses from employees who were available and willing to participate in the study.

## 6. Main Study Variables

Independent Variable:

Practical work experience and managerial supervision.

Dependent Variable:

Operational learning and employee performance.

## 7. Data Collection Methods

Primary Data:

Primary data was collected through questionnaires, interviews, and observation of employees performing operational tasks.

Secondary Data:

Secondary data was collected from research papers, journals, books, and online resources related to manufacturing operations and workforce training.

## 8. Research Limitations

- Limited sample size
- Time constraints during the study
- Responses may be influenced by personal perceptions of employees.

## 9. Practical Implications

The findings of the study can help manufacturing organizations improve employee training programs, operational workflows, and workforce productivity.

## 6.1 RESULTS AND FINDINGS

### 1. Overview of the Results

The purpose of this research was to analyze how personal traits influence job performance and operational learning among employees working in the manufacturing sector. Data collected from respondents through questionnaires and workplace observations was analyzed to understand the behavioral characteristics that contribute to efficiency and productivity in manufacturing organizations.

The results indicate that personal traits significantly affect how employees perform their duties, interact with colleagues, and adapt to operational challenges. Employees who possess positive personality traits such as responsibility, adaptability, teamwork, and emotional stability demonstrate higher levels of productivity and better learning outcomes under managerial supervision.

The findings also show that managerial guidance enhances the impact of these traits by providing direction, training, and feedback that help employees perform their roles more effectively.

### 2. Results Related to Personal Traits and Job Performance

Conscientiousness

The results revealed that conscientiousness is one of the most important personality traits influencing job performance in the manufacturing sector. Employees who exhibit high levels of conscientiousness tend to be organized, disciplined, and committed to their work responsibilities.

Such employees follow operational procedures carefully and maintain high standards of accuracy in production activities. They are more likely to complete tasks on time and ensure that manufacturing processes are carried out efficiently.

The research findings indicate that workers who demonstrate conscientious behavior contribute to reduced production errors, improved product quality, and better overall operational efficiency. In environments where machinery operation and product specifications require precision, conscientious employees play a critical role in maintaining productivity and minimizing waste.

### **Emotional Stability**

The results of the study also highlight the importance of emotional stability in manufacturing workplaces. Manufacturing environments can sometimes involve stressful conditions such as production deadlines, equipment malfunctions, or increased workload during peak production periods.

Employees who possess high emotional stability are better able to handle these situations without experiencing excessive stress or frustration. They remain calm and focused, which allows them to continue performing their tasks effectively even in challenging circumstances.

The findings show that emotionally stable employees contribute to a more harmonious workplace because they are less likely to engage in conflicts with colleagues or supervisors. Their ability to manage stress helps maintain a positive work environment and ensures that production activities continue smoothly.

### **Teamwork and Cooperation**

Another important result of the research is the strong relationship between teamwork and manufacturing efficiency. Manufacturing operations usually require collaboration between different departments such as production, quality control, maintenance, and logistics.

Employees who demonstrate cooperative attitudes and strong interpersonal skills contribute significantly to improving coordination within the organization. They communicate effectively with team members and share information that helps solve operational problems quickly.

The results indicate that teams with strong cooperation are able to maintain a steady workflow, reduce operational delays, and achieve production targets more efficiently. Employees who are willing to support their colleagues also help create a collaborative organizational culture that benefits the entire manufacturing process.

### **Adaptability and Learning Ability**

The study found that adaptability is another essential personal trait that influences employee performance in manufacturing environments. With the increasing adoption of automation, digital monitoring systems, and advanced machinery, employees must continuously learn new skills and adapt to technological changes.

Employees who possess adaptable personalities are more willing to accept new responsibilities and learn updated operational methods. They show greater enthusiasm toward training programs and skill development initiatives introduced by management.

The results suggest that adaptable employees contribute to organizational growth by helping companies successfully implement new technologies and improve production processes.

### **Attention to Detail**

Attention to detail emerged as a crucial factor affecting product quality and operational accuracy. Manufacturing tasks often require employees to follow specific measurements, machine settings, and quality standards.

Employees who demonstrate careful observation and attention to detail are more capable of identifying defects, monitoring machine performance, and ensuring that products meet required specifications. This trait is especially important in areas such as quality control, inspection, and assembly line operations.

The findings indicate that employees with strong attention to detail help reduce product defects and minimize production losses. Their careful approach contributes to maintaining the reputation of the organization by ensuring consistent product quality.

### **3. Role of Managerial Supervision in Employee Performance**

The research findings also emphasize the importance of managerial supervision in enhancing operational learning and employee performance. Managers play a crucial role in guiding employees, providing training, and monitoring work progress.

Employees who receive regular supervision and constructive feedback from their managers are able to understand their tasks more clearly and improve their work efficiency. Managers also help employees develop problem-solving skills by assisting them in handling operational challenges.

The results indicate that managerial supervision improves employee confidence and motivation. When employees feel supported by their supervisors, they are more likely to engage actively in their work and demonstrate higher levels of commitment to organizational goals.

### **4. Impact on Operational Learning**

Operational learning refers to the process through which employees acquire practical knowledge and skills while performing their daily work activities. The study found that personal traits combined with managerial guidance significantly enhance operational learning in manufacturing organizations.

Employees who possess positive traits such as curiosity, responsibility, and adaptability tend to learn faster from their workplace experiences. They actively observe production processes, seek guidance from supervisors, and apply newly learned skills to improve their performance.

The results suggest that organizations that encourage continuous learning and provide supportive supervision create an environment where employees can develop both technical skills and professional competence.

### **5. Overall Findings of the Study**

Based on the analysis of the collected data, the study identified several important conclusions regarding personal traits and job performance in the manufacturing sector.

First, employees who demonstrate positive personality traits are more productive and contribute to better operational outcomes. Their behavior positively influences workplace efficiency and teamwork.

Second, managerial supervision plays an important role in strengthening employee capabilities and guiding them toward improved job performance.

Third, operational learning is enhanced when employees possess adaptable attitudes and are willing to learn from practical work experiences.

Finally, the combination of suitable personal traits and effective managerial guidance helps manufacturing organizations maintain high levels of productivity, product quality, and employee satisfaction.

## **6.2 BIG FIVE PERSONALITY TRAITS IN MANUFACTURING WORKPLACE**

### **1. Conscientiousness**

Conscientiousness refers to an individual's level of responsibility, discipline, organization, and reliability. Employees who score high in conscientiousness are careful in their work, follow instructions accurately, and complete tasks efficiently.

In the manufacturing sector, conscientious employees help maintain production quality and reduce errors. Since manufacturing operations often involve standardized processes and safety procedures, employees must pay close attention to detail. Workers who are organized and responsible are more likely to follow operational guidelines, maintain machinery properly, and ensure that production targets are met.

For example, machine operators with high conscientiousness will carefully check machine settings, monitor product quality, and follow safety procedures strictly, thereby minimizing defects and accidents.

## 2. Emotional Stability

Emotional stability refers to the ability of an individual to remain calm, composed, and balanced under stressful or demanding situations. Manufacturing environments sometimes involve tight production deadlines, equipment breakdowns, or high workload periods.

Employees with strong emotional stability are able to handle such pressures without becoming overwhelmed. They remain focused and continue performing their duties efficiently even in challenging situations. This trait is particularly important for supervisors, production managers, and machine operators who must make quick decisions during operational disruptions.

Emotionally stable employees also contribute to a positive work environment because they are less likely to engage in conflicts or react negatively to workplace challenges.

## 3. Teamwork and Cooperation

Manufacturing processes often require coordination between multiple departments such as production, quality control, maintenance, logistics, and inventory management. Therefore, teamwork and cooperation are essential personal traits in this sector.

Employees who possess strong teamwork skills communicate effectively with colleagues, support team members, and contribute to collective problem-solving. A cooperative work environment ensures that production processes run smoothly and efficiently.

For instance, when production teams collaborate effectively with maintenance teams, machine breakdowns can be resolved quickly, minimizing downtime and production losses.

## 4. Adaptability and Flexibility

The manufacturing sector frequently experiences technological advancements, process improvements, and changes in production methods. Employees who are adaptable and flexible can easily adjust to new machinery, updated procedures, and changing production requirements.

Adaptable workers are willing to learn new skills and embrace change, which helps organizations remain competitive. For example, when a manufacturing company introduces automated machinery or digital monitoring systems, employees with adaptable personalities are more likely to learn the new technology quickly and integrate it into their daily tasks.

This trait is especially valuable in modern manufacturing environments that emphasize continuous improvement and innovation.

## 5. Attention to Detail

Attention to detail is a critical trait in manufacturing because even small errors can lead to defective products, safety hazards, or production delays.

Employees with strong attention to detail carefully inspect materials, monitor machine operations, and follow quality control standards. This ensures that products meet required specifications and customer expectations.

For example, quality control inspectors must carefully examine finished products for defects, measure dimensions accurately, and ensure that the final output meets industry standards.

## 7. SUGGESTIONS

### Improving Training Programs

Manufacturing organizations should focus on providing structured training programs that combine theoretical knowledge with practical experience.

### Strengthening Managerial Supervision

Managers should actively guide employees, provide feedback, and monitor operational processes to improve performance.

### Encouraging Skill Development

Organizations should encourage employees to develop technical and problem-solving skills through continuous learning programs.

### Creating a Supportive Work Environment

A positive work environment helps employees stay motivated and perform their duties effectively.

## 8. CONCLUSION

The study concludes that practical work experience and operational learning under managerial supervision play a significant role in improving employee performance in the manufacturing sector. Employees who receive proper guidance and practical exposure are able to develop technical skills, understand operational workflows, and contribute effectively to organizational productivity.

Manufacturing organizations that focus on training, supervision, and employee development can improve operational efficiency and achieve long-term success.

## 9. SCOPE FOR FURTHER STUDIES

Future research can explore the impact of advanced technologies, automation, and digital manufacturing systems on operational learning and employee performance. Studies can also examine the role of leadership styles and training methods in improving workforce productivity.

## 10. References

1. Lewis R. Goldberg (1993). *The structure of phenotypic personality traits*. American Psychologist, 48(1), 26–34.  
This study introduced the Big Five personality model and explained how personality traits influence human behavior and performance in different environments.
2. Paul T. Costa Jr. & Robert R. McCrae (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual*. Odessa, FL: Psychological Assessment Resources.
3. Murray R. Barrick & Michael K. Mount (1991). *The Big Five personality dimensions and job performance: A meta-analysis*. Personnel Psychology, 44(1), 1–26.  
This research established that conscientiousness is one of the strongest predictors of job performance across different occupations.
4. Timothy A. Judge, Joyce E. Bono, Remus Ilies & Megan W. Gerhardt (2002). *Personality and leadership: A qualitative and quantitative review*. Journal of Applied Psychology, 87(4), 765–780.

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# A STUDY ON CUSTOMER SATISFACTION OF ELECTRIC SCOOTERS IN MUMBAI

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## ABSTRACT

The rapid growth of electric vehicles (EVs) has significantly transformed the urban transportation landscape in India. Among various EV segments, electric scooters have emerged as a popular and sustainable alternative to conventional petrol-powered two-wheelers, particularly in metropolitan cities like Mumbai. This study aims to examine customer satisfaction and usage patterns of electric scooter users in Mumbai city, focusing on key factors influencing adoption and user experience.

The research is based on a descriptive study conducted using primary data collected from 100 respondents in areas such as Ghatkopar and Kurla through structured questionnaires. The study analyses various factors affecting customer satisfaction, including cost efficiency, battery performance, mileage range, charging time, availability of charging infrastructure, after-sales service, and technological features. Statistical tools such as percentage analysis and Chi-square tests have been applied to interpret the data and test the hypotheses.

The findings of the study indicate that electric scooters are widely accepted among young consumers and are primarily used for daily commuting purposes such as work and education. High levels of satisfaction are observed due to low running costs, environmental benefits, and satisfactory mileage performance. However, challenges such as limited charging infrastructure, longer charging time, and gaps in after-sales service continue to affect overall user experience.

The hypothesis testing results reveal that charging infrastructure and mileage performance have a significant impact on customer satisfaction, whereas the purpose of usage does not significantly influence satisfaction levels. The study concludes that electric scooters have strong potential for future growth in Mumbai, provided that existing challenges are addressed through improved infrastructure, technological advancements, and better service support.

Overall, the research provides valuable insights for manufacturers, policymakers, and marketers to enhance product offerings, strengthen infrastructure, and promote sustainable urban mobility.

**Keywords:** Customer Satisfaction, Electric Scooters

## 1. INTRODUCTION

With the growing popularity of electric vehicles (EVs), especially electric scooters, which are becoming a viable substitute for gasoline-powered two-wheelers in urban areas, India's transportation industry is changing quickly. For everyday commuters, electric scooters are an effective and sustainable transportation option in a highly populated city like Mumbai, where issues like air pollution, rising fuel prices, traffic congestion, and parking shortages are all problems.

Rechargeable batteries power electric scooters, which have zero pollutants, little noise, and low operating and maintenance expenses. Their uptake has been further accelerated by government programs and subsidies. Electric scooters are particularly well-suited to Mumbai's urban layout, which is marked by short travel distances and intense traffic. Students and working professionals are increasingly using these scooters in places like Ghatkopar and Kurla.

Factors including battery performance, mileage, charging infrastructure, cost effectiveness, and after-sales support all have an impact on customer satisfaction. Although consumers value the financial and environmental advantages, issues with charging stations and service quality still exist.

Analysing consumer satisfaction and use trends, including travel habits and preferences, is the main goal of the study. It seeks to offer information that manufacturers and legislators may use to advance sustainable urban transportation, increase product performance, and upgrade infrastructure.

## **2. REVIEW OF LITERATURE**

### **1. Rogers (2003) – Diffusion of Innovation Theory**

In his book *Diffusion of Innovations*, Everett Rogers (2003) describes how new technologies are embraced over time using the following categories: innovators, early adopters, early majority, late majority, and laggards. According to the idea, adoption decisions are influenced by a number of characteristics, including trialability, observability, complexity, compatibility, and relative benefit. When it comes to electric scooters, buyers are more inclined to embrace the technology when they see definite financial and ecological benefits. This notion is supported by the current study, which looks at how consumer satisfaction and usage habits are impacted by perceived cost effectiveness and ease.

### **2. Oliver (1980) – Expectation-Confirmation Theory**

According to the Expectation-Confirmation Theory, which was first presented by Richard L. Oliver in 1980, the comparison of expectations and actual product performance determines consumer satisfaction. Satisfaction happens when performance meets or surpasses expectations; discontent happens when it doesn't. This idea is especially important when assessing electric scooters, since buyers anticipate sufficient range, dependable battery life, and effective customer service. This idea is used in the current study to examine Mumbai consumers' satisfaction levels.

### **3. Rezvani, Jansson & Bodin (2015) – Consumer Adoption of Electric Vehicles**

When Zahra Rezvani and Jansson and Bodin (2015) examined the variables influencing the adoption of electric vehicles by consumers, they found that social impact, technology awareness, environmental concern, and financial incentives were important predictors. According to their research, customers are motivated by cost savings and environmental consciousness, but adoption is hampered by perceived dangers associated with battery life and resale value. These factors are taken into account in the current study to comprehend Mumbai's use trends.

### **4. Egbue & Long (2012) – Barriers to Electric Vehicle Adoption**

Major obstacles to the adoption of electric vehicles, according to Okechukwu Egbue and Long (2012), include high starting costs, short driving ranges, and inadequate infrastructure for charging. According to their research, customer perception is a significant factor in determining customer happiness and desire to make more purchases. This body of research backs up the necessity of looking at the infrastructural and service-related issues that Mumbai's electric scooter customers experience.

### **5. Indian EV Policy Reports (NITI Aayog, 2022)**

According to NITI Aayog (2022), government subsidies, infrastructural development, and consumer awareness initiatives are critical to India's shift to electric transportation. The paper emphasizes that because of shorter commutes and growing fuel prices, cities like Mumbai have a significant potential for the adoption of electric two-wheelers. The importance of researching consumer satisfaction and consumption trends in urban areas is reinforced by this policy viewpoint.

According to the analysed research, the following factors affect consumer satisfaction and the uptake of electric scooters:

Considered financial advantages, Availability of charging infrastructure, Awareness of the environment, Battery performance and service quality and Government incentives and policy support.

While there is a lot of study on the adoption of electric vehicles worldwide, there aren't many studies that explicitly address Mumbai's electric scooter users. Therefore, the present study attempts to fill this research gap by analysing satisfaction levels and usage patterns in the local urban context.

### 3. OBJECTIVES OF THE STUDY

1. To examine the level of customer satisfaction towards electric scooters in Mumbai city with reference to cost efficiency, mileage, charging time, and after-sales service.
2. To analyze the usage patterns of electric scooter users in Mumbai, including purpose of use, frequency of travel, and preferred charging locations.
3. To evaluate the relationship between charging infrastructure, mileage performance, and overall customer satisfaction among electric scooter users.

### 1. HYPOTHESES OF THE STUDY

#### Hypothesis 1

- **H0<sub>1</sub> (Null Hypothesis):** There is no significant relationship between charging infrastructure availability and customer satisfaction.
- **H1<sub>1</sub> (Alternative Hypothesis):** There is a significant relationship between charging infrastructure availability and customer satisfaction.

#### Hypothesis 2

- **H0<sub>2</sub> (Null Hypothesis):** Mileage performance does not significantly influence customer satisfaction towards electric scooters.
- **H1<sub>2</sub> (Alternative Hypothesis):** Mileage performance significantly influences customer satisfaction towards electric scooters.

#### Hypothesis 3

- **H0<sub>3</sub> (Null Hypothesis):** There is no significant association between purpose of usage and overall satisfaction level of electric scooter users.
- **H1<sub>3</sub> (Alternative Hypothesis):** There is a significant association between purpose of usage and overall satisfaction level of electric scooter users.

### 5. RESEARCH METHODOLOGY

#### Research Design

The study adopts a **descriptive research design**, as it aims to describe the characteristics, satisfaction levels, and usage patterns of electric scooter users.

#### Sampling Method

- Simple Random Sampling

#### Sample Size

- 100 respondents

#### Sampling Area

- Ghatkopar
- Kurla

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**Data Collection Methods****Primary Data**

- Structured questionnaire
- Direct interaction with respondents

**Secondary Data**

- Research papers
- Government reports
- Websites and articles

**Tools and Techniques of Analysis**

- Percentage analysis
- Tabulation
- Charts and graphs
- Chi-Square Test

**Limitations of the Study**

- Limited sample size
- Restricted to selected areas of Mumbai
- Possibility of respondent bias
- Time constraints

**Scope of the Study**

The study focuses on understanding consumer satisfaction and usage behaviour of electric scooters in urban Mumbai and helps in identifying key improvement areas.

**6. DATA ANALYSIS AND INTERPRETATION****Age-wise Distribution**

Age Group	Respondents	Percentage
18–30	60	60%
31–40	25	25%
41–50	14	14%
51+	1	1%

**Interpretation**

Majority (60%) of users belong to the young age group (18–30), indicating that electric scooters are highly popular among youth.

**Brand Preference**

Brand	Respondents	Percentage
TVS	31	31%
Ola	27	27%
Bajaj	16	16%
Ather	8	8%
Others	18	18%

**Interpretation**

TVS and Ola are the most preferred brands, indicating strong market presence and consumer trust.

**7. HYPOTHESIS TESTING**

- Relationship between Charging Infrastructure & Customer Satisfaction

Satisfaction	Good Infrastructure	Poor Infrastructure	Total
Satisfied	68	8	76
Not Satisfied	12	12	24
<b>Total</b>	80	20	100

**Expected Frequency Table (E)**

Satisfaction	Good Infra	Poor Infra
Satisfied	60.8	15.2
Not Satisfied	19.2	4.8

**Chi-Square Calculation Table**

O	E	(O-E)	(O-E) <sup>2</sup> /E
68	60.8	7.2	0.852
8	15.2	-7.2	3.411
12	19.2	-7.2	2.700
12	4.8	7.2	10.800

[chi<sup>2</sup> = 17.763]

- df = (2-1)(2-1) = 1

- **Critical value (5%) = 3.84**

**Decision:**  $17.763 > 3.84 \rightarrow$  Reject  $H_0$

**Conclusion:** Significant relationship exists. **Relationship between Mileage Performance & Satisfaction.**

Satisfaction	Good Mileage	Poor Mileage	Total
Satisfied	75	10	85
Not Satisfied	5	10	15
<b>Total</b>	80	20	100

**Expected Table**

Satisfaction	Good	Poor
Satisfied	68	17
Not Satisfied	12	3

**Chi-Square Calculation**

O	E	$(O-E)^2/E$
75	68	0.721
10	17	2.882
5	12	4.083
10	3	16.333

$[\chi^2 = 24.019]$

- **df = 1**
- **Critical value = 3.84**

**Decision:** Reject  $H_0$ .

**Conclusion:** Mileage significantly affects satisfaction

- **Relationship between Purpose of Usage & Satisfaction**

Purpose	Satisfied	Not Satisfied	Total
Work	45	5	50
Education	28	5	33
Others	12	5	17
<b>Total</b>	85	15	100

**Expected Table**

Purpose	Satisfied	Not Satisfied
Work	42.5	7.5
Education	28.05	4.95
Others	14.45	2.55

**Chi-Square Calculation**

O	E	(O-E) <sup>2</sup> /E
45	42.5	0.147
5	7.5	0.833
28	28.05	0.000
5	4.95	0.001
12	14.45	0.415
5	2.55	2.352

[chi<sup>2</sup> = 3.748]

- **df = (3-1) (2-1) = 2**
- **Critical value = 5.99**

**Decision:** 3.748 < 5.99 → Fail to Reject H<sub>0</sub>

**Conclusion:** No significant relationship

**8. KEY FINDINGS OF THE STUDY**

- Electric scooters are quite popular among young people (18–30 years old) and are mostly utilized for everyday travel, including to work and school.
- The most important aspect affecting customer satisfaction is cost efficiency, which includes cheap operating and maintenance expenses.
- Most customers also report great mileage performance.
- The main issue is the infrastructure for charging, as there aren't enough public charging stations, which makes home charging less convenient.
- Companies such as TVS Motor Company and Ola Electric are the leaders in brand preference, and technology features and after-sales service are crucial in improving customer experience.
- Adoption is influenced by environmental consciousness and long-term cost savings, suggesting that electric scooters have significant development potential in cities like Mumbai as long as infrastructure and service standards are raised.

**9. SUGGESTIONS**

- To enhance the ease of everyday commuters, Mumbai's charging infrastructure should be further expanded, encompassing residential, business, and public places. Additionally, fast-charging facilities should be introduced.

- To satisfy changing consumer demands, manufacturers should improve battery technology, product quality, dependability, cutting-edge technical features, and safety regulations.
- Expanded warranties, better customer support systems, more service centers, and skilled technicians are all necessary to fortify after-sales service networks.
- To speed up infrastructure development and affordability, the government should continue to provide subsidies, incentives, and support for public-private partnerships.
- To boost acceptance and enhance the user experience overall, awareness campaigns, simple financing solutions like EMI plans, and ongoing innovation should be encouraged.

## 10. CONCLUSION

The study suggests that electric scooters are an effective and eco-friendly mode of transportation in Mumbai, owing to increased fuel costs and environmental concerns. Good mileage performance, simple maintenance, and cost savings are the major reasons for high customer satisfaction. The widespread usage of electric scooters for daily travel, particularly for work and school, demonstrates their usefulness in urban settings. The user experience is still impacted by issues like after-sales support, charging time, and inadequate infrastructure. The study demonstrates how performance elements like infrastructure and distance have a big impact on satisfaction. Electric scooters offer great promise for future expansion and sustainable urban mobility with advancements in technology and infrastructure.

## Bibliography

1. Agarwal, S., & Singh, R. (2020). Consumer adoption of electric vehicles: Insights from Indian market. *Journal of Cleaner Transportation*, 8(2), 145–162.
2. Agha, A. T., & Alotaibi, F. (2019). Electric vehicle adoption: A system dynamics approach. *Sustainable Cities and Society*, 50, 101640.
3. Bansal, P., & Kockelman, K. M. (2017). Forecasting Americans' long-term adoption of connected and autonomous vehicle technologies. *Transportation Research Part A: Policy and Practice*, 95, 49–63.
4. Egbue, O., & Long, S. (2012). Barriers to widespread adoption of electric vehicles: An analysis of consumer preferences. *Energy Policy*, 48, 717–729.
5. Jansson, J., & Bodin, J. (2015). Consumer adoption of sustainable innovations: Evidence from electric vehicles. *Journal of Cleaner Production*, 108, 1102–1110.
6. Karlsson, I. C. M., & Lagnelöv, Ö. (2017). Charging infrastructure and take-up of electric vehicles — A city case study. *Energy Policy*, 108, 673–683.
7. Kumar, V., & Sharma, R. (2021). Market analysis of electric two-wheelers in India. *International Journal of Vehicle Industry*, 9(1), 54–68.
8. Mahapatra, S., & Das, K. (2019). Electric vehicle policy in India: The role of incentives and infrastructure. *Energy Policy*, 129, 402–411.
9. Mandal, S., & Roy, S. (2020). Customer satisfaction assessment for electric two-wheelers. *Indian Journal of Transport Management*, 44(3), 27–44.
10. NITI Aayog. (2022). *Electric mobility in India: Progress and prospects*. Government of India.
11. Oliver, R. L. (1980). *A cognitive model of the antecedents and consequences of satisfaction decisions*. *Journal of Marketing Research*, 17(4), 460–469.
12. Padhi, S., & Singh, P. (2021). Adoption of electric scooters: A study of urban commuters. *Journal of Urban Technology*, 28(4), 101–117.
13. Rezvani, Z., Jansson, J., & Bodin, J. (2015). Advances in consumer electric vehicle adoption research: A review and research agenda. *Transportation Research Part D: Transport and Environment*, 34, 122–136.
14. Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). Free Press.
15. Sierzechula, W., Bakker, S., Maat, K., & van Wee, B. (2014). The influence of financial incentives and charging infrastructure on electric vehicle adoption. *Energy Policy*, 68, 183–194.
16. Singh, A., & Jain, R. (2020). Behavioural intention to use electric scooters in Indian metros. *International Journal of Electric Mobility*, 3(2), 89–105.
17. Wang, N., & Wu, L. (2018). Public perception and acceptance of electric vehicles — A global review. *Renewable and Sustainable Energy Reviews*, 92, 306–318.
18. Zhang, Y., & Mi, Z. (2018). Environmental benefits and policy analysis for electric scooter adoption in cities. *Urban Climate*, 25, 89–97.

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## A STUDY OF STARTUP AWARENESS AND INNOVATION MINDSET AMONG HIGHER EDUCATION STUDENTS IN MUMBAI

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### Abstract

Entrepreneurship and innovation are key drivers of economic growth and employment. Higher education institutions play an important role in fostering entrepreneurial awareness and innovative thinking among students. This study examines the relationship between startup awareness, institutional support, and innovation mindset among higher education students in Mumbai. Data were collected through a structured questionnaire and analyzed using reliability analysis, correlation, and regression. The findings highlight the importance of enhancing startup awareness and strengthening institutional support to promote innovative thinking and entrepreneurial orientation among students.

**Keywords:** *Startup Awareness, Innovation Mindset, Institutional Support, Entrepreneurship Education, Higher Education*

### Introduction

Entrepreneurship and innovation have become essential drivers of economic development, technological advancement, and employment generation. Higher education institutions play a significant role in developing entrepreneurial competencies and fostering innovative thinking among students. Exposure to entrepreneurial education, start-up ecosystems, and institutional initiatives can influence students' awareness of entrepreneurship and shape their innovation mind-set.

In India, the growing start-up ecosystem supported by initiatives such as Start-up India has created new opportunities for young individuals to engage in entrepreneurial activities. Universities and colleges are increasingly promoting entrepreneurship through incubation centres, innovation labs, workshops, and start-up competitions. These initiatives aim to enhance students' awareness of start-up opportunities and encourage creative problem-solving and innovative thinking.

Cities such as Mumbai, which serve as major economic and entrepreneurial hubs, provide a dynamic environment for students to interact with the start-up ecosystem. However, despite the increasing focus on entrepreneurship education, it is important to understand whether students are sufficiently aware of start-up opportunities and how institutional support contributes to the development of their innovation mind-set.

Therefore, this study examines the relationship between start-up awareness, innovation mind-set, and institutional support among higher education students in Mumbai. The findings aim to provide insights into how educational institutions can strengthen entrepreneurial awareness and foster innovative thinking among students.

### Review of literature

1. **Jeyalakshmi R et al. (2023)**, examined the impact of startup awareness on innovation among youth. Using survey data and statistical analysis, the study found that higher startup awareness encourages creative thinking and innovation, highlighting the role of educational institutions in promoting entrepreneurial awareness.
2. **Erram and N V Sriranga (2023)**, examined entrepreneurial awareness among final-year undergraduate students in Telangana. Using a structured questionnaire with a sample of 250 students, the study found that students demonstrated a reasonable level of awareness about entrepreneurship. The results also

revealed a significant relationship between entrepreneurial awareness and demographic factors such as gender, age, area of residence, and field of study.

3. **Shijith V (2019)**, conducted a study on the awareness of startups among higher education students in Kannur district, Kerala. The study aimed to examine whether students were aware of the concept and opportunities related to startups. The findings indicated that startup awareness among students plays an important role in encouraging entrepreneurial thinking and identifying innovative business opportunities.
4. **Mourlin K et al. (2025)**, examined the development of entrepreneurial skills and mindset among students in higher education institutions across Kerala, Tamil Nadu, and West Bengal. Using theoretical frameworks such as the Entrepreneurial Event Model and Theory of Planned Behavior, the study analyzed regional initiatives between 2015 and 2025. The findings highlighted that institutional initiatives such as innovation hubs, financial support programs, and social entrepreneurship networks play an important role in fostering entrepreneurial skills and mindset among students. However, the study also identified gaps in integrated entrepreneurship education and access to support systems across regions.
5. **Shah (2025)**, examined emerging trends in student entrepreneurship in India through an empirical study based on survey data. The findings revealed that factors such as passion, financial independence, and social impact motivate students to pursue entrepreneurial activities. The study also identified challenges including lack of mentorship, funding, and time. Additionally, institutional programs, digital platforms, and family support were found to play an important role in shaping students' entrepreneurial aspirations and encouraging student-led ventures.

### Problem Statement

Although higher education institutions are increasingly promoting entrepreneurship through various programs and initiatives, many students still demonstrate limited awareness of start-up opportunities and entrepreneurial processes. While institutional support mechanisms such as incubation centres, entrepreneurship cells, and innovation programs are being implemented, their effectiveness in shaping students' innovation mind-set remains uncertain. In a dynamic entrepreneurial ecosystem such as Mumbai, it is important to examine whether start-up awareness and institutional support significantly influence the development of an innovation mind-set among higher education students.

### Significance of the Study

This study provides insights into how start-up awareness and institutional support influence the development of an innovation mind-set among higher education students. The findings may assist educational institutions and policymakers in strengthening entrepreneurship education and fostering a more supportive ecosystem for student innovation and entrepreneurial thinking.

### Objectives of the study

1. To examine the level of start-up awareness among higher education students.
2. To assess the innovation mind-set among higher education students.
3. To analyse the relationship between start-up awareness and innovation mind-set among students.
4. To examine the relationship between start-up awareness and institutional support among higher education students.
5. To analyse the role of institutional support in fostering innovation mind-set among students.

### Hypotheses

1. **H<sub>01</sub>**: There is no significant relationship between start-up awareness and innovation mind-set among higher education students.

**H<sub>11</sub>**: There is a significant relationship between start-up awareness and innovation mind-set among higher education students.

2. **H<sub>02</sub>**: There is no significant relationship between start-up awareness and institutional support.  
**H<sub>12</sub>**: There is a significant relationship between start-up awareness and institutional support.
3. **H<sub>03</sub>**: There is no significant relationship between institutional support and innovation mind-set among students.  
**H<sub>13</sub>**: There is a significant relationship between institutional support and innovation mind-set among students.
4. **H<sub>04</sub>**: Start-up awareness does not significantly influence innovation mind-set among higher education students.  
**H<sub>14</sub>**: Start-up awareness significantly influences innovation mind-set among higher education students.

### Research Methodology Framework

1. **Research Design**: The study adopted a quantitative and descriptive research design to examine the relationship between start-up awareness, innovation mind-set, and institutional support among higher education students.
2. **Study Area**: The research was conducted among higher education students in Mumbai, a major educational and entrepreneurial hub.
3. **Target Population**: The target population consisted of undergraduate and postgraduate students studying in colleges and universities.
4. **Sampling Method**: A convenience sampling method was used to collect responses from students who were accessible and willing to participate in the survey.
5. **Sample Size**: A total of **233** respondents participated in the study, which provided sufficient data for statistical analysis.
6. **Data Collection Method**: Primary data was collected using a structured questionnaire based on a 5-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).
7. **Variables of the Study**: The study examined three key variables:
  - Startup Awareness (Independent Variable)
  - Institutional Support (Independent Variable)
  - Innovation Mindset (Dependent Variable)
8. **Data Analysis Tools**: The collected data was analyzed using IBM SPSS Statistics. The following statistical techniques were applied:
  - Reliability Analysis (Cronbach's Alpha)
  - Pearson Correlation Analysis
  - Linear Regression Analysis
9. **Hypothesis Testing**: The hypotheses were tested at a 5% level of significance ( $p < 0.05$ ) to determine the statistical relationship between the variables.

### Limitations

1. The study was limited to students from Mumbai, which may restrict the generalizability of the findings to other regions.
2. The sample size of 233 respondents may not fully represent all higher education students.
3. The study relied on self-reported questionnaire responses, which may involve response bias.
4. Only three variables start-up awareness, innovation mind-set, and institutional support—were examined.

5. The research was conducted within a limited time frame, restricting longitudinal analysis.

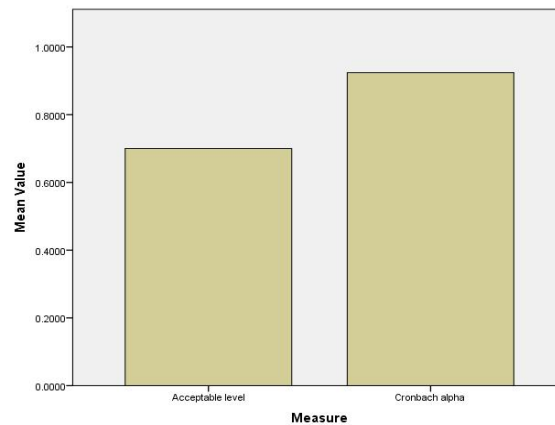
### Data Analysis and Interpretation

The collected data from 233 respondents was analysed using IBM SPSS Statistics. Reliability analysis, correlation analysis, and regression analysis were conducted to test the hypotheses and examine the relationships among start-up awareness, institutional support, and innovation mind-set.

**1. Reliability Analysis:** Reliability analysis was conducted to assess the internal consistency of the questionnaire items.

**Table 1: Reliability Statistics**

Cronbach's Alpha	Number of Items
0.924	20



**Interpretation:** The Cronbach's Alpha value of 0.924 indicates excellent reliability of the questionnaire. Since the value is above the acceptable threshold of 0.70, the instrument is considered reliable for further statistical analysis.

**2. Correlation Analysis:** Pearson correlation analysis was used to examine the relationship among start-up awareness, institutional support, and innovation mind-set.

**Table 2: Correlation Matrix**

Variables	Start-up Awareness	Innovation Mind-set	Institutional Support
Start-up Awareness	1	0.629**	0.451**
Innovation Mind-set	0.629**	1	0.424**

Variables	Start-up Awareness	Innovation Mind-set	Institutional Support
Institutional Support	0.451**	0.424**	1

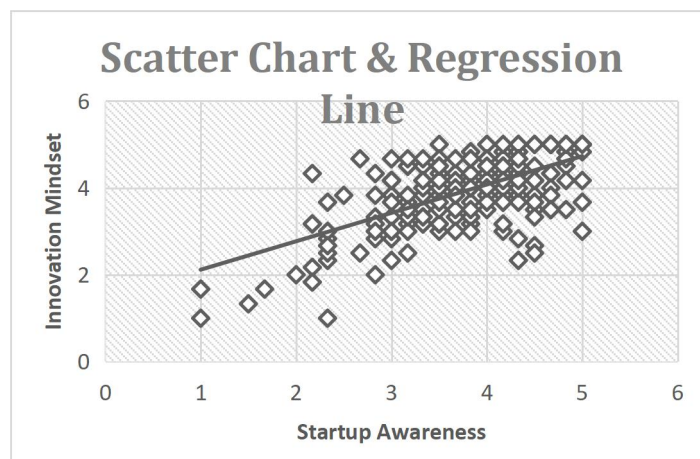
Significance level:  $p < 0.01$

**Interpretation:** The results show a strong positive relationship between start-up awareness and innovation mind-set ( $r = 0.629$ ). This indicates that students with higher awareness of start-up ecosystems tend to have a stronger innovation mind-set.

A moderate positive relationship exists between start-up awareness and institutional support ( $r = 0.451$ ), suggesting that institutional initiatives such as workshops, incubation centres, and mentorship programs help improve students' awareness of start-ups.

Similarly, a moderate positive relationship between institutional support and innovation mind-set ( $r = 0.424$ ) indicates that institutional support contributes to developing innovative thinking among students.

	Start-up Awareness	Innovation Mind-set	Institutional Support
Start-up Awareness	1	0.629	0.451
Innovation Mind-set	0.629	1	0.424
Institutional Support	0.451	0.424	1



**3. Regression Analysis:** Regression analysis was conducted to examine the influence of start-up awareness on innovation mind-set.

**Table 3: Model Summary**

R	R Square	Adjusted R Square	Std. Error
0.629	0.396	0.394	0.632

**Interpretation:** The R-square value of 0.396 indicates that start-up awareness explains 39.6% of the variation in innovation mind-set among students.

**Table 4: ANOVA Results**

Source	Sum of Squares	df	Mean Square	F	Sig
Regression	60.585	1	60.585	151.584	0.000
Residual	92.325	231	0.400		
Total	152.910	232			

**Interpretation:** The ANOVA results show that the regression model is statistically significant ( $p < 0.05$ ), indicating that start-up awareness significantly predicts innovation mind-set.

**Table 5: Regression Coefficients**

Variable	B	Std. Error	Beta	t	Sig
Constant	1.463	0.205		7.134	0.000
Start-up Awareness	0.653	0.053	0.629	12.312	0.000

**Interpretation:** The regression coefficient for start-up awareness ( $\beta = 0.629$ ) is positive and significant. This indicates that an increase in start-up awareness leads to an increase in innovation mind-set among higher education students.

### Hypothesis-wise Summary

#### Hypothesis 1

**H<sub>01</sub>:** There is no significant relationship between start-up awareness and innovation mind-set among higher education students.

**H<sub>11</sub>:** There is a significant relationship between start-up awareness and innovation mind-set among higher education students.

**Statistical Test Used:** Pearson Correlation Analysis using IBM SPSS Statistics

**Results:** The correlation analysis revealed a strong positive correlation between start-up awareness and innovation mind-set ( $r = 0.629$ ,  $p = 0.000$ ).

**Interpretation:** The p-value is less than the significance level of 0.05, indicating that the relationship is statistically significant.

**Conclusion:** The null hypothesis is rejected and the alternative hypothesis is accepted. This indicates that higher levels of start-up awareness among students are associated with a stronger innovation mind-set.

### Hypothesis 2

**H<sub>02</sub>:** There is no significant relationship between start-up awareness and institutional support.

**H<sub>12</sub>:** There is a significant relationship between start-up awareness and institutional support.

**Statistical Test Used:** Pearson Correlation Analysis

**Results:** The correlation coefficient between start-up awareness and institutional support was found to be  $r = 0.451$ , with a significance level of  $p = 0.000$ .

**Interpretation:** The results indicate a moderate positive relationship between institutional support and start-up awareness among students.

**Conclusion:** Since the p-value is less than 0.05, the null hypothesis is rejected. This suggests that institutional encouragement, workshops, and exposure to entrepreneurship initiatives positively influence students' awareness of start-ups.

### Hypothesis 3

**H<sub>03</sub>:** There is no significant relationship between institutional support and innovation mind-set among students.

**H<sub>13</sub>:** There is a significant relationship between institutional support and innovation mind-set among students.

**Statistical Test Used:** Pearson Correlation Analysis

**Results:** The correlation between institutional support and innovation mind-set was found to be  $r = 0.424$ , with  $p = 0.000$ .

**Interpretation:** The findings reveal a moderate positive relationship between institutional support and innovation mind-set.

**Conclusion:** The null hypothesis is rejected. This indicates that institutional support plays a significant role in fostering innovative thinking among higher education students.

### Hypothesis 4

**H<sub>04</sub>:** Start-up awareness does not significantly influence innovation mind-set among higher education students.

**H<sub>14</sub>:** Start-up awareness significantly influences innovation mind-set among higher education students.

**Statistical Test Used:** Linear Regression Analysis using IBM SPSS Statistics

**Results:** The regression analysis indicated that start-up awareness significantly predicts innovation mind-set ( $\beta = 0.629$ ,  $t = 12.312$ ,  $p = 0.000$ ). The model explained 39.6% of the variance in innovation mind-set ( $R^2 = 0.396$ ).

**Interpretation:** The positive regression coefficient indicates that an increase in start-up awareness leads to an increase in students' innovation mind-set.

**Conclusion:** Since the significance value is less than 0.05, the null hypothesis is rejected. This confirms that start-up awareness has a significant positive influence on the innovation mind-set of higher education students.

### Conclusion

The study examined the relationship between start-up awareness, innovation mind-set, and institutional support among higher education students in Mumbai. Reliability analysis using IBM SPSS Statistics showed a Cronbach's Alpha of **0.924**, indicating high internal consistency of the questionnaire. Correlation results revealed a strong positive relationship between start-up awareness and innovation mind-set ( **$r = 0.629$** ),

suggesting that students with greater exposure to start-up ecosystems tend to demonstrate stronger innovative thinking. The study also found moderate positive relationships between start-up awareness and institutional support ( $r = 0.451$ ), and between institutional support and innovation mind-set ( $r = 0.424$ ), highlighting the role of institutional initiatives in fostering entrepreneurial awareness. Regression analysis further confirmed that start-up awareness significantly influences innovation mind-set, explaining 39.6% of the variance. Overall, the findings indicate that both start-up awareness and institutional support are important factors in developing an innovation mind-set among higher education students.

### Recommendations

1. Integrate entrepreneurship education into academic curricula to enhance students' understanding of start-up development and innovation.
2. Establish incubation and innovation centres to support students interested in launching start-ups.
3. Conduct workshops, hackathons, and training programs to encourage practical entrepreneurial learning.
4. Strengthen collaboration with industry and start-up founders to provide students with real-world exposure.
5. Promote an innovation culture on campus through competitions, clubs, and research initiatives.
6. Enhance government and institutional support through funding programs and entrepreneurship initiatives in India.

### Scope for Future Research

1. Future studies can expand the research to other cities and regions across India for broader generalization.
2. Researchers may use a larger sample size to improve the reliability of findings.
3. Additional variables such as entrepreneurial intention, risk-taking ability, and access to funding can be examined.
4. Comparative studies between different types of institutions (public, private, technical) can provide deeper insights.
5. Future research may adopt longitudinal or mixed-method approaches to better understand the development of innovation mind-set over time.

### References

1. Fostering Entrepreneurship Skills and Mindset: Problems and Prospects in Higher Education Institutions across Kerala, Tamil Nadu, and West Bengal(2025)[https://ijirt.org/publishedpaper/IJIRT189527\\_PAPER.pdf](https://ijirt.org/publishedpaper/IJIRT189527_PAPER.pdf)
2. Emerging Trends in Student Entrepreneurship in India: An Empirical Study (2025) <https://www.ijfmr.com/papers/2025/5/57428.pdf>
3. A Study on Awareness of Startup on Young Minds Which Impacts New Innovations and Gross Domestic Product(2023) <https://www.ijfmr.com/papers/2023/6/8998.pdf>
4. A Study on Entrepreneurial Awareness among the Higher Education Students(2023) <https://www.questjournals.org/jrbm/papers/vol11-issue3/1103120125.pdf>
5. A study on awareness of startup among students in higher education with special reference to Kannur district, Kerala(2019) <https://ijrar.org/papers/IJRAR2001427.pdf>

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# DATA-DRIVEN STRATEGIC DECISION MAKING

## *Leveraging Data Analytics for Strategic Advantage*

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### Abstract

Data-driven strategic decision making has become a defining feature of modern organizations operating in an increasingly digital and competitive environment. The rapid growth of digital technologies, online platforms, and data analytics tools has enabled organizations to collect and analyze massive volumes of information generated from customers, operations, and market interactions. These insights allow managers to improve the quality of strategic decisions and reduce uncertainty associated with complex business environments. This research paper examines the concept of data-driven strategic decision making and explores how organizations utilize analytics to guide long-term planning and competitive strategy.

The study is based on secondary data collected from academic literature in the fields of strategic management, information systems, and data analytics. Key contributions from scholars such as Davenport and Harris (2007), Brynjolfsson and McElheran (2016), and Provost and Fawcett (2013) are reviewed to understand how analytics influences managerial decision making. In addition, two case studies—Amazon and Netflix—are examined to illustrate how leading digital companies use data analytics to guide strategic choices related to product development, customer engagement, and operational efficiency.

The findings indicate that organizations adopting data-driven strategies often achieve improved decision accuracy, stronger customer insights, and enhanced operational efficiency. However, successful implementation requires reliable data infrastructure, skilled analytical talent, and an organizational culture that supports evidence-based decision making. The paper concludes that data analytics will continue to shape the future of strategic management as organizations increasingly rely on data-driven insights to remain competitive in dynamic global markets.

### 1. Introduction

In the modern digital economy, data has become one of the most valuable organizational resources. Businesses generate enormous volumes of data through online transactions, customer interactions, digital platforms, and operational processes. This data provides insights that can help organizations understand customer behavior, optimize internal processes, and identify new market opportunities.

Strategic decision making refers to the process through which organizations determine long-term goals and allocate resources to achieve competitive advantage. Traditionally, strategic decisions were largely based on managerial intuition, experience, and limited information. While these approaches sometimes produced successful outcomes, they also exposed organizations to high levels of uncertainty.

The development of advanced analytics tools has transformed the strategic decision-making process. Managers can now analyze large datasets using statistical techniques, machine learning algorithms, and data visualization tools. These technologies enable organizations to detect patterns, forecast future trends, and evaluate strategic alternatives more effectively.

Data-driven decision making refers to the systematic use of data and analytical models to guide managerial choices. Organizations that adopt this approach rely on empirical evidence rather than intuition alone. As global competition intensifies and business environments become more complex, the ability to leverage data analytics has become a critical capability for organizations seeking sustainable competitive advantage.

This research paper explores the role of data analytics in strategic decision making. It examines key analytical tools used by organizations, identifies challenges associated with implementing data-driven strategies, and analyzes case studies of companies that successfully integrate analytics into their strategic decision processes.

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## 2. Literature Review

The relationship between analytics and strategic decision making has been widely discussed in management research. Davenport and Harris (2007) introduced the concept of “competing on analytics,” arguing that organizations capable of systematically analyzing data can outperform competitors. Their research demonstrates that analytics-driven organizations rely heavily on quantitative insights when making strategic decisions related to pricing, marketing, and operational efficiency.

Provost and Fawcett (2013) highlight the importance of data science in modern organizations. According to their work, data science combines statistical analysis, machine learning, and domain knowledge to extract valuable insights from large datasets. These insights enable organizations to predict future outcomes and support strategic planning.

Brynjolfsson and McElheran (2016) conducted empirical research examining the impact of data-driven management practices on firm performance. Their findings suggest that organizations using data-driven decision making experience higher productivity and improved operational efficiency compared with firms relying primarily on intuition-based approaches.

Other studies emphasize the organizational challenges associated with implementing analytics strategies. Managers must address issues related to data quality, privacy protection, and technological infrastructure. Additionally, organizations must develop a culture that encourages evidence-based decision making and continuous learning.

Overall, the literature suggests that data analytics plays a critical role in improving decision quality and organizational performance. However, successful implementation requires integration of technological capabilities, managerial expertise, and supportive organizational structures.

## 3. Objectives of the Study

The main objectives of this research are:

1. To examine the concept of data-driven strategic decision making.
2. To analyze the role of data analytics and big data in organizational strategy.
3. To identify the key challenges associated with implementing analytics-based decision processes.
4. To examine real-world organizations that successfully use data analytics in strategic decision making.
5. To highlight the importance of data-driven strategies in improving organizational performance.

## 4. Research Methodology

This study adopts a descriptive research methodology based on secondary data. Academic books, peer-reviewed journal articles, and research publications related to analytics, strategic management, and information systems were reviewed to understand how organizations apply data analytics in decision making.

In addition to literature review, case study analysis was used to examine how leading digital companies apply analytics in strategic decision processes. The cases of Amazon and Netflix were selected because these companies are widely recognized for their extensive use of data analytics in business strategy. The case studies provide practical insights into how analytics influences product development, customer engagement, and competitive positioning.

The objective of this research is not to conduct empirical statistical analysis but rather to synthesize existing knowledge and illustrate how data-driven decision making contributes to organizational success.

## 5. Analytical Tools for Data-Driven Decision Making

Organizations rely on several analytical technologies to support data-driven strategic decision making. Business intelligence systems enable organizations to collect, integrate, and visualize data from multiple

sources. These systems provide dashboards and reports that help managers monitor performance and identify emerging trends.

Predictive analytics uses statistical models and machine learning algorithms to forecast future outcomes based on historical data. Organizations use predictive analytics to anticipate customer demand, optimize pricing strategies, and reduce operational risks.

Big data analytics allows organizations to analyze extremely large and complex datasets generated from digital platforms and online transactions. Advanced computing technologies make it possible to process these datasets and extract valuable insights that support strategic planning.

Data visualization tools transform complex analytical results into graphical representations such as charts and dashboards. These visual tools enable managers to quickly understand analytical insights and make informed decisions.

## 6. Implementation Challenges

Despite the potential benefits of analytics, organizations face several challenges when implementing data-driven strategies. One of the most significant challenges is ensuring data quality and reliability. Inaccurate or incomplete data can lead to misleading conclusions and poor strategic decisions.

Another challenge involves technological infrastructure. Implementing advanced analytics systems requires significant investment in computing resources, software tools, and skilled professionals. Many organizations struggle to recruit qualified data scientists and analysts capable of interpreting complex datasets.

Organizational culture also plays an important role in the success of data-driven initiatives. Managers accustomed to intuition-based decision making may resist analytical approaches. Successful implementation therefore requires leadership support, employee training, and a culture that values evidence-based decision making.

## 7. Case Study: Amazon

Amazon is widely regarded as one of the most data-driven companies in the world. The company collects and analyzes vast amounts of data generated from customer browsing behavior, purchase history, and product reviews. These insights enable Amazon to make strategic decisions related to pricing, logistics, and product recommendations.

One of Amazon's most well-known innovations is its recommendation system, which uses machine learning algorithms to suggest products based on individual customer preferences. This system significantly improves customer experience and increases sales by presenting relevant product suggestions.

Amazon also uses predictive analytics to optimize its supply chain operations. By analyzing demand patterns and inventory data, the company can anticipate product demand and ensure efficient distribution across its logistics network. This data-driven approach has helped Amazon maintain operational efficiency while expanding its global e-commerce presence.

## 8. Case Study: Netflix

Netflix provides another powerful example of data-driven strategic decision making. The streaming platform collects data on viewing behavior, user ratings, and engagement patterns from millions of subscribers worldwide. These insights allow Netflix to recommend personalized content and improve the overall user experience.

One notable example is the development of the original series "House of Cards." Netflix analyzed viewer data and identified strong interest in political dramas and specific actors. Based on this analysis, the company decided to produce the series, which later became one of its most successful programs.

Netflix continues to rely heavily on data analytics when making strategic decisions about content production, marketing, and platform design. By analyzing viewer preferences, the company can invest in content that aligns closely with audience interests, reducing the risk associated with large entertainment investments.

## 9. Findings and Discussion

The analysis of case studies highlights the growing importance of data-driven strategies in modern organizations. Companies such as Amazon and Netflix demonstrate how analytics can support strategic planning and improve decision quality. Data-driven decision making allows organizations to evaluate alternatives using empirical evidence rather than relying solely on intuition.

Analytics also improves organizational agility by enabling managers to respond quickly to changes in customer behavior and market conditions. As data technologies continue to evolve, organizations that effectively integrate analytics into their strategic decision processes are likely to achieve stronger competitive advantage.

## 10. Conclusion

Data-driven strategic decision making has become an essential capability for organizations operating in the digital economy. Advances in analytics and information technology enable firms to transform large volumes of data into actionable insights that guide strategic planning.

This research examined the role of data analytics in strategic management and analyzed case studies of Amazon and Netflix to illustrate how analytics influences real-world business decisions. The findings suggest that organizations adopting data-driven strategies can achieve improved operational efficiency, stronger customer insights, and better competitive positioning.

As technology continues to evolve, data analytics will play an increasingly important role in shaping organizational strategy. Future research may explore how emerging technologies such as artificial intelligence and real-time analytics further enhance strategic decision making.

## References

1. Brynjolfsson, E., & McElheran, K. (2016). The rapid adoption of data-driven decision-making. *American Economic Review*.
2. Davenport, T. H., & Harris, J. G. (2007). *Competing on analytics: The new science of winning*. Harvard Business School Press.
3. Provost, F., & Fawcett, T. (2013). *Data science for business*. O'Reilly Media.

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# SUSTAINABLE STARTUPS: BALANCING PROFIT WITH PURPOSE

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## Abstract

This paper examines the growing role of sustainable startups in aligning economic profitability with environmental and social responsibility. As investors increasingly prioritize ESG-oriented business models, startups are redefining entrepreneurship by embedding sustainability within their core strategies. Using secondary research and selected case illustrations from Indian startups such as Ather Energy, ReNew Power, and Bare Necessities, the paper explores how innovative business models, responsible supply chains, and impact-driven investment frameworks enable startups to balance profit with purpose. The analysis highlights the financial viability of sustainability-oriented enterprises and the emerging role of green finance and ESG investment in supporting such ventures.

## 1. Introduction

The contemporary entrepreneurial ecosystem is undergoing a significant transformation as environmental and social considerations gain prominence alongside financial performance. Businesses are increasingly expected to demonstrate responsible practices that extend beyond traditional profit maximization. Sustainable startups have emerged as key players in this evolving landscape by integrating environmental stewardship and social responsibility into their business models.

From a finance perspective, the rise of sustainable entrepreneurship has been closely linked with the expansion of impact investing and ESG-focused capital markets. Investors are increasingly directing funds toward enterprises that generate measurable social and environmental impact while maintaining financial sustainability.

## 2. Literature Review

Academic literature on sustainable entrepreneurship highlights the integration of economic, environmental, and social objectives within entrepreneurial ventures. Cohen and Winn (2007) argue that environmental market imperfections create opportunities for entrepreneurs to develop innovative solutions that simultaneously generate profit and environmental benefits.

Similarly, Dean and McMullen (2007) propose that sustainable entrepreneurship addresses environmental challenges through market-based mechanisms. Elkington's (1997) concept of the triple bottom line further emphasizes that successful enterprises must balance financial performance with social and environmental outcomes.

## 3. Concept of Sustainable Startups

Sustainable startups are entrepreneurial ventures that integrate sustainability principles into their core operations and strategic decision-making processes. These firms focus on creating long-term value through responsible resource management, ethical supply chains, and environmentally friendly innovations.

## 4. Profit–Purpose Integration Framework

This study proposes a conceptual framework illustrating how sustainable startups balance profitability with social and environmental purpose.

Inputs: ESG governance, sustainable innovation, impact investment, responsible supply chains.

Strategic Actions: circular economy adoption, green technology development, ethical branding.

Outcomes: financial profitability, environmental impact reduction, social value creation.

## 5. Case Studies of Sustainable Startups

Ather Energy has developed electric scooters and charging infrastructure aimed at reducing urban carbon emissions. Its innovation-driven strategy demonstrates how clean mobility solutions can create both environmental benefits and strong market demand.

ReNew Power represents one of India's largest renewable energy firms, generating electricity through solar and wind power projects. The company has attracted substantial institutional investment, demonstrating the financial viability of renewable energy businesses.

Bare Necessities is a sustainability-focused consumer startup promoting zero-waste lifestyle products. Through ethical branding and environmentally friendly product design, the company has successfully built a niche market among conscious consumers.

## 6. Comparative Startup Analysis

Startup	Sector	Sustainability Strategy	Financial Impact
Ather Energy	Electric Mobility	Electric scooters & charging network	Growing EV market share
ReNew Power	Renewable Energy	Solar and wind energy projects	Large institutional investments
Bare Necessities	Sustainable Consumer Goods	Zero-waste lifestyle products	Premium eco-brand growth
Bamboo India	Sustainable Materials	Bamboo alternatives	Expanding eco-friendly market

## 7. Challenges for Sustainable Startups

Sustainable startups often face significant financial constraints including high capital requirements for green technologies, longer investment payback periods, and competition from conventional low-cost alternatives. Additionally, regulatory uncertainties and limited consumer awareness can affect market expansion.

## 8. Future Outlook

The expansion of green finance, ESG investment funds, and supportive government policies is expected to strengthen the ecosystem for sustainable entrepreneurship. Technological advancements in renewable energy, electric mobility, and sustainable materials will continue to create new opportunities for innovative startups.

## 9. Conclusion

Sustainable startups illustrate a significant shift in the philosophy of entrepreneurship. By aligning financial performance with environmental and social responsibility, these ventures demonstrate that profitability and sustainability can coexist. As global markets increasingly prioritize responsible investment and ethical consumption, sustainable startups are likely to play a crucial role in shaping the future of business.

## References

1. Cohen, B., & Winn, M. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*.
2. Dean, T., & McMullen, J. (2007). Toward a theory of sustainable entrepreneurship. *Journal of Business Venturing*.
3. Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Capstone.
4. Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation. *Business Strategy and the Environment*.
5. United Nations. (2020). *Sustainable Development Goals Report*.

## Footnotes

1. Sustainable entrepreneurship refers to entrepreneurial activities that generate both financial returns and measurable environmental or social benefits.
2. ESG refers to Environmental, Social, and Governance criteria used by investors to evaluate responsible business practices.

## A STUDY ON CONSUMER PERCEPTIONS OF FOOD DELIVERY APPS IN MUMBAI AND NAVI MUMBAI

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Associate Professor, K.J. Somaiya College of Arts and Commerce

### ABSTRACT

Online food apps have become very popular these days. Many start-up have emerged with their cloud kitchen because of such food delivery apps like : Food Panda Zomato Swiggy Box8 Fasoos, Uber eats etc. This has been very convenient to people across the India. However, these are seen more in cities and it suits the busy life of people. This paper attempts to study the demography of customers, their perceptions and suggestions to improve to make it more successful. It also studies the most widely used food apps.

### Introduction

There are many food apps in India. This is more popular in cities and is widely used in cities because of its convenience and fast life. It caters to many and also has generated employment opportunities to many. The most popular food apps are Zomato, Swiggy, Uber Eats.etc. These enables us to get door delivery from very famous restaurants thus saving lot of time. For those who are working, it has become a solace when there is late sitting. According to Deepinder Goyal, Zomato CEO and co-founder told TechCrunch that he expects to reach 10,000 restaurants in India in a few months. “We have a sales team of around 300 in India and 5,000-odd advertisers ,these partners know the volume we bring to them so it is quite easy for us to launch this new service.”

Food tech is a vast market and food delivery start-ups are just a part of it. Various apps in the Indian market are: Food Panda Zomato Swiggy Box8 Fasoos etc.

### Objectives of the study

To find the demography of the customers using food apps.

To study the reasons for using food apps.

To analyze the most preferred food apps.

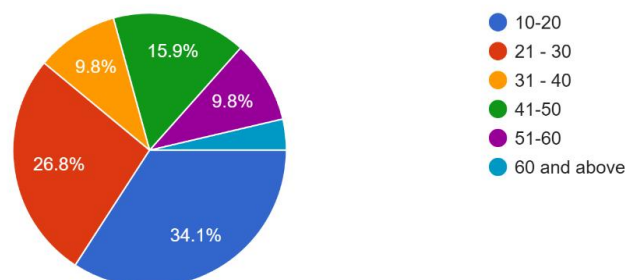
To understand the overall perceptions of food apps.

### Research Methodology

Questionnaire was sent to many respondents randomly in Mumbai and Navi Mumbai. 82 respondents were studied.

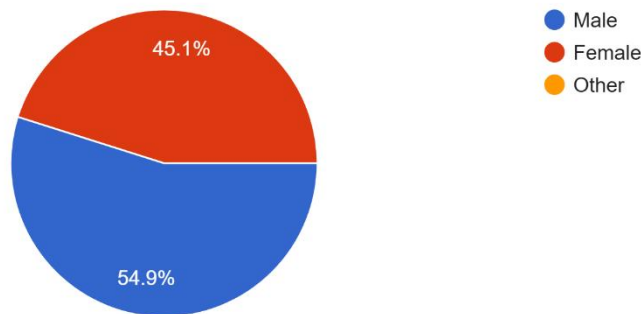
### Data Analysis

Age  
82 responses



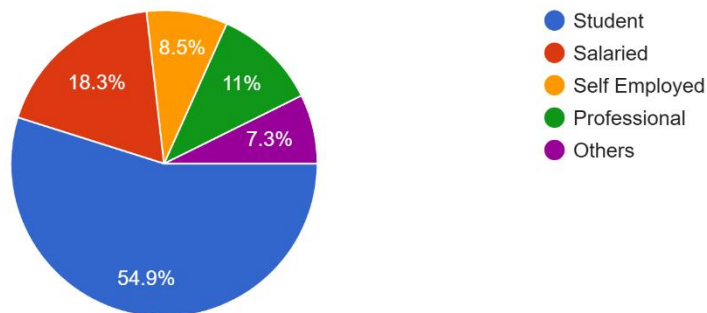
34.1% of the respondents were of the age group 10 – 20 years.  
26.8% of the respondents were of the age group 21 – 30 years.  
15.9% of the respondents were of the age group 41 – 50 years.  
9.8% of the respondents were of the age group 31 – 40 years.  
9.8% of the respondents were of the age group 51 – 60 years.  
3.7% of the respondents were above 60 years.

Gender  
82 responses



54.9% of the respondents were male.  
45.1% of the respondents were female.

Occupation  
82 responses

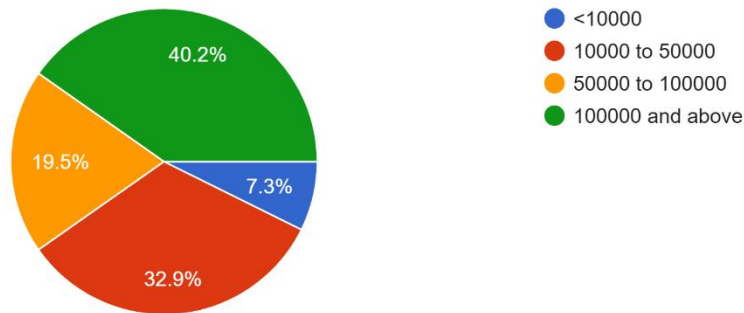


54.9% of the respondents were students.  
18.3% of the respondents were salaried.  
11% of the respondents were professionals.

8.5% of the respondents were self-employed.

### Family Income per month

82 responses



40.2% of the respondents were having family income above 100000 lakhs per month

32.9% of the respondents were having family income above 10000 - 50000 per month

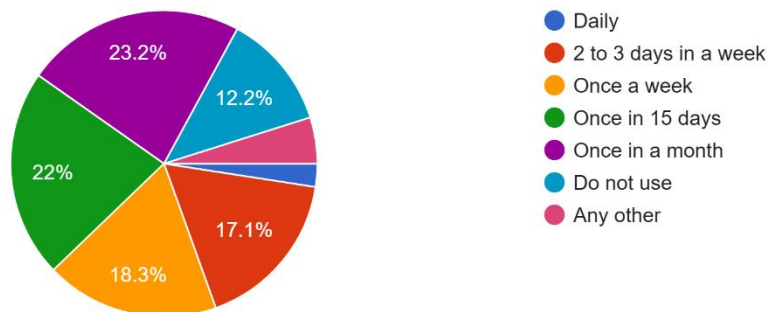
19.5% of the respondents were having family income above 50000 -100000 lakhs per month

7.3% of the respondents were having family income below 10000 per month.

This means majority of the respondents were having family income above 100000.

### How often do you use food apps?

82 responses



23.2% of the respondents used the app once in a month.

22% of the respondents used the app once in 15 days.

18.3% of the respondents used the app once in a week.

17.1% of the respondents used the app two to three days in a week.

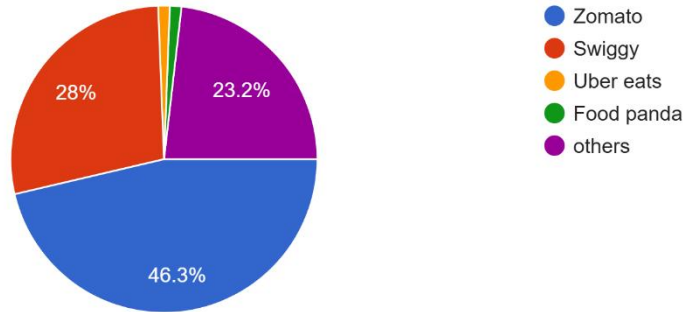
2.2% of the respondents used the app daily.

12.2% of the respondents do not use the app.

The above shows that majority of the respondents use the app either once in 15 days or once in a week.

### Which food apps do you prefer?

82 responses



46.3% of the respondents used Zomato.

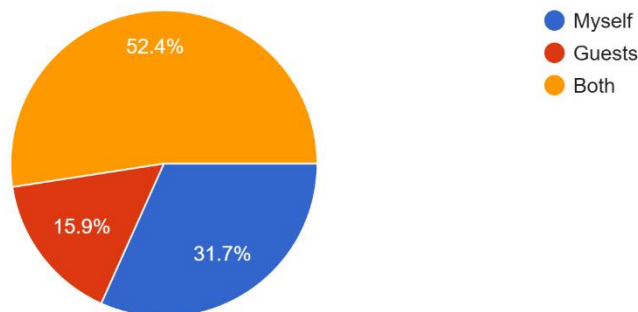
28% of the respondents used Swiggy.

23.2% of the respondents used others.

This shows among the food delivery apps Zomato is widely used.

### What is the purpose for using food apps?

82 responses



52.4% of the respondents used the app for themselves or when guests come in their house.

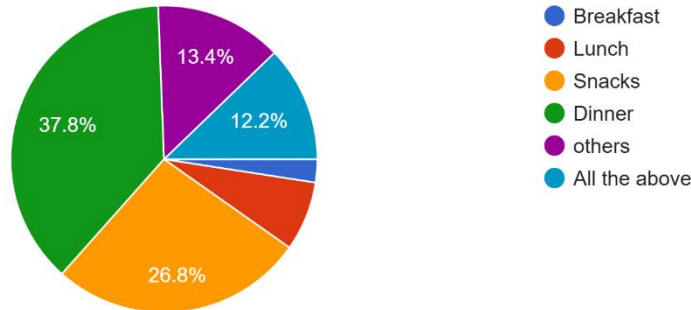
31.7% of the respondents used the app for themselves.

15.9% used the app for guests.

This shows that these food apps have become very convenient for people to use. They get what they want sitting at home.

What do you order regularly ?

82 responses



37.8% of the respondents ordered dinner.

26.8% of the respondents ordered snacks.

7.3% of the respondents ordered lunch.

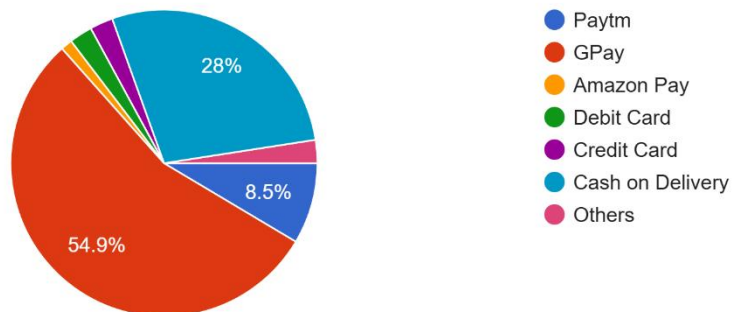
13.4% of the respondents ordered others which can include cakes, sweets etc.

12.2% of the respondents ordered all the above.

Since from the above it is seen dinner is ordered the maximum which means customers are tired after work, they have an option to relax by ordering from the app.

What is your mode of payment ?

82 responses



54.9% of the respondents used gpay to make payment.

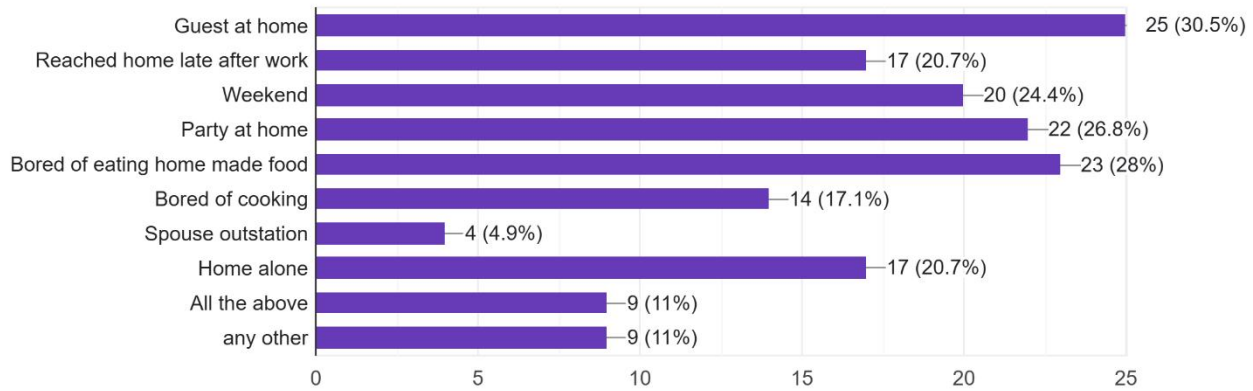
28% of the respondents made cash on delivery.

8.5% of the respondents used paytm.

This shows customers are using more of digital payment to order food from these apps.

### I generally order food from food app

82 responses



30.5% of the respondents ordered food from app when they are having guests at home.

28% of the respondents ordered food from food apps as they were bored of eating food from home.

26.8% of the respondents ordered food from food apps when they are having party at home.

24.4% of the respondents ordered food from food apps on weekends.

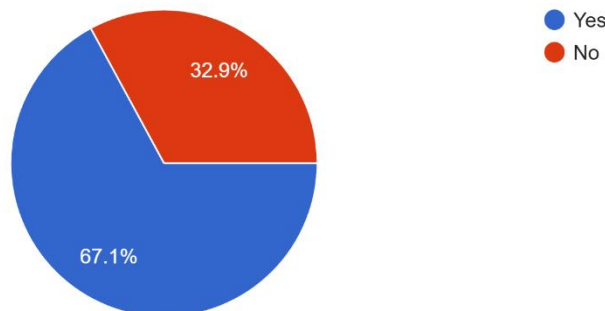
20.7% of the respondents ordered food from food apps home reached home after work.

20.7% of the respondents ordered food from food apps when they were home alone.

This shows that majority of the customers ordered food from food apps when they had guests at home, bored of eating home made food, weekends, home alone, reached home late after work etc. Thus food ordering apps has become a solution to many problems faced by people especially in big cities where life is very busy.

### Do you go by the ratings and review while ordering from food app?

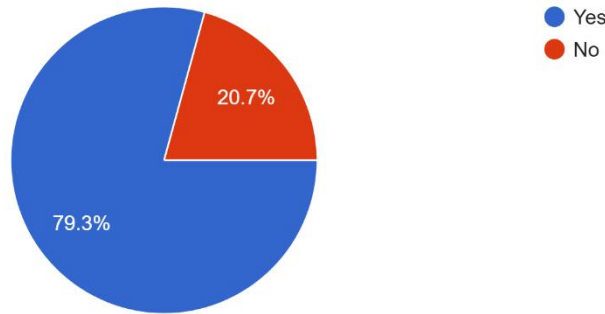
82 responses



67.1% of the respondents go by the ratings and reviews while ordering food from food apps. This also shows that the restaurants who are selling on food apps has to keep the quality of their food good in order to get good reviews.

Is it costly to order food from food delivery apps?

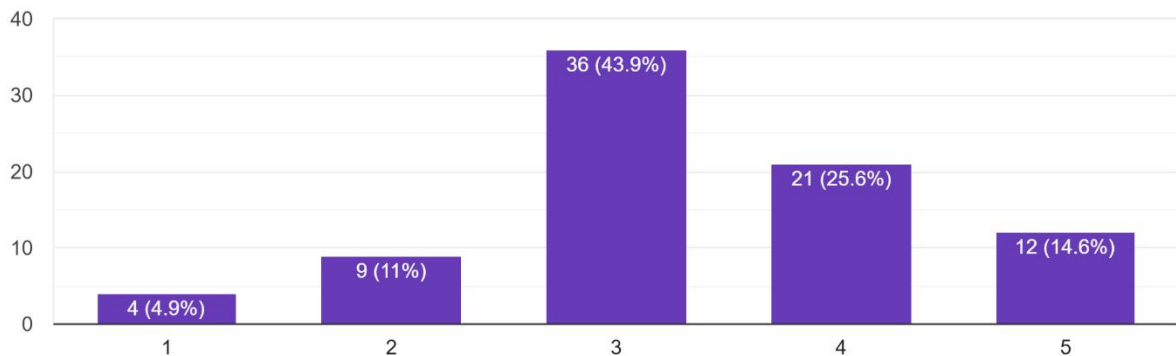
82 responses



79.3% of the respondents found that the food ordered from delivery apps are costlier.

How do you rate the services of the food delivery app? 1 Bad 2 Satisfactory 3 Good 4 Very Good 5 Excellent

82 responses



43.9% of the respondents felt the services of the food delivery app were good.

25.6% of the respondents felt the services were very good and 14.6% of the respondents felt it was excellent. Majority of the respondents felt the services of the food delivery app were good.

The following were the suggestions given by the respondents for improvement of food app services.

Late deliveries should be improved, quantity should be clearly specified, cancellation should be avoided, prices should be reduced, location mapping should be accurate, coupons should be available uniformly on all devices, food should be hot, excess miscellaneous charges like packaging should be low, time taken to deliver should be less, ratings are misleading at times, sometimes the app does not deliver, not sure about the quality,

sometimes wrong items is sent, accidents do take place due to fast driving so it should be avoided, training to be given to staff for better delivery and loyalty points to be given.

### Conclusions

34.1% of the respondents were of the age group 10 – 20 years.

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43.9% of the respondents felt the services of the food delivery app were good.

25.6% of the respondents felt the services were very good and 14.6% of the respondents felt it was excellent. Majority of the respondents felt the services of the food delivery app were good.

From the above one can see that there are many opportunities for starts – ups for setting up cloud kitchen as operational costs will be less than starting a full-fledged restaurant. There are many customers relying on this delivery apps as mentioned above.

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## SUSTAINABLE MARITIME START-UPS: LESSONS FROM JAWAHARLAL NEHRU PORT AUTHORITY

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<sup>1</sup>Associate Professor, Bhavan's Hazarimal Somani College, Mumbai

<sup>2</sup>Ph.D Scholar, University of Mumbai

### Abstract

Sustainable development is increasingly being recognized as a relevant theme in the Indian port industry. The port industry, however, is challenged to minimize pollution, enhance energy efficiency and implement cleaner technology. At the same time, the start-up community is being recognized as a major force in the innovation of traditional infrastructure in the domain of ports. This paper investigates the significance of sustainable initiatives, such as those implemented at Jawaharlal Nehru Port Authority (JNPA).

This paper discusses JNPA's initiatives in renewable energy and environmental compliance. It asserts that sustainable initiatives by ports provide new avenues for start-ups in solar energy technology and sustainability reporting. The paper relies on secondary data sources from policy documents, annual reports, and government publications.

This paper highlights that ports are not only trade facilitation points but also innovation platforms for sustainable development. It further seeks to emphasize that with the learning experience from JNPA, new start-ups can discover new opportunities in the Indian maritime sector.

### Keywords

Sustainability, Maritime innovation, Port industry.

### Introduction

Ports play a significant role in global trade and economic development. However, they also contribute to environmental challenges such as air pollution, carbon emission and energy consumption. The increasing demand of sustainable development has made ports to adopt cleaner technologies, improve energy efficiencies and reduce environmental impacts. In this context, Indian ports are also adopting measures to ensure sustainable port development through policies and its implementations.

In this context, Jawaharlal Nehru Port Authority (JNPA) illustrates how adoption of sustainable practices can create market-pull for maritime start-ups through the demand of renewable energy systems, electrification of mobility vehicles, digital platforms and monitoring equipment. This port provides a significant example of how sustainability initiatives can support innovation and entrepreneurship.

### Methodology

This paper aims to understand the lessons from Jawaharlal Nehru Port Authority (JNPA) and the avenues for start-ups in the domain of Indian ports. Thus, this paper adopts a qualitative case study approach to examine sustainability initiatives by JNPA. The research is based on the secondary data collected from official reports, policy documents, government publications, port authority websites, and news sources related to JNPA's sustainability initiatives. The case study method explains how sustainability practices are implemented and how it generates opportunities for start-ups.

### Jawaharlal Nehru Port Authority: Case Study

Jawaharlal Nehru Port Authority (JNPA), located at Nhava Sheva near Mumbai, Maharashtra, is India's largest container port and one of the significant gateways for international trade. The port accounts for around 50% of the total container cargo volume across the major ports of India (JNPA, n.d.). Over the years, JNPA

has evolved from a conventional cargo-handling port into a modern, technology-driven maritime hub focusing on efficiency, sufficiency and innovation.

JNPA operates multiple container terminals with around 7.3 million TEUs (Twenty-foot Equivalent Units) in the financial year 2025 and has the capacity of over 10 million TEUs without compromising the sustainability measures (Business Standard, 2025). The port functions under a landlord port model in which the port infrastructure is handled by the port authority, while the terminal operations are undertaken through public-private partnerships. This partnership has enabled JNPA to incorporate modern technologies and sustainable practices through associations with private entities.

### **Renewable Energy Transition**

JNPA has been able to achieve the major milestone of sourcing 60% of total energy requirements from renewable resources. The port has taken a major step of installing solar plants on the administrative buildings, terminals and warehouses, signalling the operationalisation of distributed solar generation across the port (World Port Sustainability Program, 2025). At the national policy level, JNPA has been listed for rooftop and ground mounted solar capacity of 4.10 MW in 2023 (PIB Headquarters, n.d.). This sets a benchmark for the scale of solar deployment and its replication all across the port.

### **Electrification of Cargo Handling Equipment**

Transport activities within ports are major contributors to air pollution. In order to resolve this issue, JNPA has initiated the process of changing diesel-run equipment to electric-run CHE (container-handling equipment), which can play an important role in promoting "energy-efficient and zero-emission mobility." This change is expected to be completed by 100% within the next two years. It is also directly related to reducing CO<sub>2</sub> emissions and noise pollution at the ports. (World Port Sustainability Program, 2025). JNPA also aims to convert around 90% of its internal vehicle fleet to electric mobility by 2026. It will significantly help in reducing greenhouse gas emissions and cargo transportation activities (Sharma, 2025).

### **Green Cover and Biodiversity-linked Land Management**

Green cover is significant for ports to mitigate the high levels of air pollution, dust, and noise generated by intensive industrial appliances, cargo handling, and transportation. JNPA possesses a total land area of 3,402 hectares, out of which 1,147 hectares (34%) of the port is under green cover, including mangroves (ENVIRONMENTAL MANAGEMENT AT JAWAHARLAL NEHRU PORT AUTHORITY, n.d.). This green cover indicates that the land-use stewardship and biodiversity considerations are part of the port's sustainability measures.

### **Air Quality Management and Environmental Monitoring**

The environmental monitoring results demonstrate that JNPA has successfully integrated operational efficiency and environmental sustainability by positioning the port as a model for green maritime infrastructure in India. As per the JNPA environment report 2025, an improvement in PM<sub>10</sub> levels is seen year-on-year from October to December, with a reduction of 33% in November and 29% in December. Overall, there has been a reduction of 25% in PM<sub>2.5</sub> levels in November 2025 (Jawaharlal Nehru Port Authority [JNPA], 2025). These developments were possible due to the deployment of mechanized road dust cleaning vehicles and dust suppression machines. These technologies highlight that emission control is not limited to tailpipe emission control but also fugitive dust control. JNPA also operates a Continuous Ambient Air Quality Monitoring System (CAAQMS) station at the designated area of the point of concern. It helps to scientifically assess air quality and measure the impact of air pollution control mechanisms (Times, 2026). The port also operates ambient air and noise pollution monitoring systems to ensure compliance with the environmental standards.

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## Clean Logistics and Zero-Emission Trucking

JNPA plans to replace more than 6,500 trucks operating in and around the port with battery-powered vehicles under its “Zero-Emission Trucking” strategy (ETA Auto, 2024). This strategy indicates a huge potential market for vehicle financing, charging and swapping, fleet operations software and maintenance services in port-linked vehicles. This implementation is planned to be implemented in a phased manner, initially replacing 15 trucks (inter-terminal rail operations), then converting 400 diesel trucks within terminals and ultimately converting 6,500 plus trucks into battery-powered technology. JNPA aims to convert around 90% of its 600 internal heavy truck fleet vehicles by December 2026. There is an induction of state-of-the-art EV trucks that aims to decarbonize and ensure energy transition in the maritime and logistics sector. This initiative aims to align with the global sustainability imperatives while maintaining operational efficiency and reducing carbon footprints across cargo corridors (PIB, n.d.).

## Digitalization and Smart Port Development

JNPA has adopted various digital technologies to improve the operational efficiencies and sustainability at the port. The port has taken a major step towards the digitalization of its operations with the implementation of an integrated "Paper-Free Harbour Management System." This HMS will include integrated modules on vessel planning, pilotage, IoT-based data, resource management, safety and sustainability, which will be integrated into a single workflow system. JNPA has adopted off-the-shelf solutions by providing a platform for start-ups to develop indigenous HMS for procurement transparency and locally-developed solutions that fits for the port workflow and efficiency (PIB, n.d.). Digitalization improves cargo flow efficiency and minimizes turnout time for vehicles and indirectly reduces emissions due to port congestion. The port's efficient cargo handling by sustainability initiatives prove that environmental responsibilities and economic performance can co-exist (Rajan, 2025).

## Start-Up Opportunities Emerging from JNPA's Sustainability Initiatives

The sustainability initiatives by JNPA demonstrate that modern ports are not limited to only logistics infrastructure but also involve innovations that create a technological market for start-ups. The initiatives and national policy frameworks make it easy for the start-ups to enter these markets and get involved in the sustainable development of the ports. National policies set defined policy targets, monitoring requirements and JNPA with its pilot initiatives and quantified outcomes have paved the way for start-ups.

Renewable energy creates new business opportunities for start-ups because ports need smarter systems to balance when energy production is limited. Renewable penetration introduces demand-side matching and intermittency challenges. Solar energy production is dependent on weather and therefore, there is a need for technological innovation that can store energies, hybrid energy storage, smart energy software and energy-as-a-service models where companies can provide energy solutions rather than just selling equipment (Misra et al., 2017). Ports require customized solar solutions that are capable of operating in environments that are characterized by salinity, humidity, and high operational loads. This creates an opportunity for start-ups engaged in solar panel optimization, energy storage systems, predictive management systems, and smart energy platforms to enter in this sector and cooperate with ports. In addition, distributed solar systems across the administrative buildings, terminals and warehouses create the opportunity for micro-grid management and energy analytics. Start-ups can provide real-time monitoring systems to optimize energy consumption and integrate renewable power into port operations.

The electrification of CHEs and the zero-emission trucking initiatives at JNPA create a new ecosystem for mobility-based start-ups. Large-scale replacement of diesel-based vehicles into electric mobility demands supporting services such as battery management systems, charging infrastructure optimization, fleet analytics services and predictive maintenance platforms (World Port Sustainability Program, 2025).

JNPA's maintenance of green cover and mangrove ecosystem indicates the opportunity for start-ups to create ecological monitoring systems. There could be GIS-based land management and biodiversity assessment tools

that can help ports in environmental planning and manage green belts across the port. There can be technology to measure carbon-sequestration, monitor ecological health through remote sensing and AI-based analytics.

This extensive monitoring, air quality control, and marine health assessment has led to an increased requirement for sustainability reporting and Environment, Social, and Governance (ESG) reporting. Ports require standardized data on sustainability to comply with national regulations and international environmental standards. In this segment, start-ups can develop systems that can automate environmental data collection, analytics dashboards, carbon accounting tools and ESG disclosure systems. This sustainability reporting can help ports to track their activities and environmental performance. It can also improve transparency and communicate sustainability outcomes to stakeholders, investors and regulatory agencies.

The implementation of the Paperless Harbour Management System (HMS) clarifies how digital transformation provides opportunities for start-ups. Digitalization and Artificial Intelligence (AI) are required to optimize energy efficiency and logistics at the ports (Kostidi & Lyridis, 2024). Start-ups can come up with digitalization of indigenous technologies to minimize vessel turnaround time and congestion and emission reduction.

### Recommendations

JNPA's trajectory clarifies that start-ups are most likely to succeed when they align their offerings to policy-defined KPIs and timelines, deliver measurable outcomes of sustainability tracking and design a PPP (Public Private Partnership) model for overall sustainable development. Firstly, start-ups should design their solutions in alignment with the Harit Sagar guidelines to achieve the targets and monitoring requirements of renewable energy adoption. It can also help in the reduction of carbon intensity per ton of cargo and environmental monitoring through systems such as Continuous Ambient Air and Quality Monitoring Stations (CAAQMS).

Secondly, start-ups can treat ports such as JNPAs as their anchor deployment ecosystem, wherein they can test and demonstrate their technologies at a small scale. Initiatives like electric-vehicle fleet targets and battery-swapping infrastructure can provide reference-customer opportunities. In this sector, start-ups can create performance-based business models that can focus on measurable outcomes such as reduced turnaround time and emission reductions. Thirdly, in shore power and alternative fuels, start-ups can adopt compatibility based phased implementation. The one-time implementation can lead to technical challenges such as interoperability and high capital investments. Thus, a staged approach can help in gradual adoption and mitigate financial and operational risks for port authorities and industry stakeholders.

Lastly, start-ups can use initiatives such as the S2I2 (Sagarmala Startup and Innovation Initiative) that provides funding support, mentorship, and industry collaboration opportunities in the areas of green shipping, smart ports, and maritime logistics (Sagarmala Startup and Innovation Initiative Ministry of Shipping, GOI, Government of India, n.d.). These platforms reduce entry barriers for start-ups and facilitate access to port ecosystems and industrial partners.

### Conclusion

Port sustainability is increasingly becoming central to trade competitiveness and environmental performance because maritime transport is having a dominant share in global trade while leading to emissions and local pollution. However, JNPA's initiatives in renewable energy, environmental monitoring, electrification of logistics, biodiversity management and digital port governance illustrate how ports are transitioning from traditional trade gateways to innovation-driven ecosystems for environmental sustainability. These initiatives not only reduce environmental impacts but also create structured opportunities for start-ups in areas such as solar energy technology, clean mobility, environmental monitoring and sustainability reporting.

### References

1. Business Standard. (2025, November 3). JNPA signs MoUs worth ₹2.2 trillion for port infra, Vadhvan port project. [www.business-standard.com. https://www.business-standard.com/industry/news/jnpa-signs-mous-worth-2-2-trillion-for-port-infra-vadhvan-port-project-125110301389\\_1.html](https://www.business-standard.com/industry/news/jnpa-signs-mous-worth-2-2-trillion-for-port-infra-vadhvan-port-project-125110301389_1.html)

2. ENVIRONMENTAL MANAGEMENT AT JAWAHARLAL NEHRU PORT AUTHORITY. (n.d.). <https://www.jnport.gov.in/page/Environmental-Management-at-Jawaharlal-Nehru-Port-Authority/bDZYRms4ZFQ1N2FzVG5Sa1pBRW5BUT09>
3. ETAuto. (2024, April 20). JNPA to change 6,500+ trucks with EVs for “Zero Emission Trucking.” ETAuto.com. <https://auto.economicstimes.indiatimes.com/news/commercial-vehicle/jnpa-to-change-6500-trucks-with-evs-for-zero-emission-trucking/109452601>
4. Jawaharlal Nehru Port Authority. (2025). JNPA Environmental Monitoring Report November 2025. [https://www.jnport.gov.in/uploads/content\\_manager/JNPA\\_Environmental\\_Monitoring\\_Report\\_Nov\\_2025.pdf](https://www.jnport.gov.in/uploads/content_manager/JNPA_Environmental_Monitoring_Report_Nov_2025.pdf)
5. JNPA. (n.d.). <https://www.jnport.gov.in/>
6. Kostidi, E., & Lyridis, D. (2024). Decarbonizing Ports for a Sustainable Future: Challenges and strategies. *Technical Annals*, 1(8). <https://doi.org/10.12681/ta.39896>
7. Lee, P.T., Kwon, O.K., & Ruan, X. (2019). Sustainability Challenges in Maritime Transport and Logistics Industry and Its Way Ahead. *Sustainability*.
8. Misra, A., Venkataramani, G., Panchabikesan, K., Ayyasamy, E., & Ramalingam, V. (2017). Sustainable Energy Resources based Smart Microgrid towards Green Port Development - A Pathway for Ecofriendly Society. *Asian Journal of Research in Social Sciences and Humanities*, 7, 190-200.
9. PIB Headquarters. (n.d.). <https://www.pib.gov.in/PressNoteDetails.aspx?ModuleId=3&NoteId=156496&id=156496@=3&lang=2>
10. PIB. India’s First Fleet of EV Trucks with Swappable Batteries Flagged Off at JNPA. (n.d.). <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2171301@=3&lang=2>
11. PIB. JNPA Integrates Indigenous HMS and iVTS to enable Real-Time, Data-Driven Marine Operations. (n.d.). <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2212185@=3&lang=2>
12. Port Wings. JNPA rolls out Comprehensive, Paper-Free Harbour Management System. (n.d.). <https://portwings.in/jnpa-rolls-out-comprehensive-paper-free-harbour-management-system/>
13. Rajan, P. A. (2025, April 3). JNPA handles record 7.3 million TEUs cargo in FY 2024-25 | World Ports Organization. <https://www.worldports.org/jnpa-handles-record-7-3-million-teus-cargo-in-fy-2024-25/?utm>
14. Sagarmala Startup and Innovation Initiative Ministry of Shipping, GOI, Government of India. (n.d.). <https://sagarmala.gov.in/s2i2>
15. Sharma, K. (2025, September 28). India launches first electric heavy truck fleet at JNPA for Green Port Logistics. *Jagranjosh.com*. [https://www.jagranjosh.com/current-affairs/india-launches-first-electric-heavy-truck-fleet-at-jnpa-for-green-port-logistics-1850000269-1?utm\\_source=chatgpt.com](https://www.jagranjosh.com/current-affairs/india-launches-first-electric-heavy-truck-fleet-at-jnpa-for-green-port-logistics-1850000269-1?utm_source=chatgpt.com)
16. Times, C. (2026, February 17). JNPA improves AQI with implementation of green initiatives. *Construction Times*. <https://constructiontimes.co.in/JNPA-improves-AQI-with-implementation-of-green-initiatives-6526>
17. World Port Sustainability Program. (2025, June 28). Jawaharlal Nehru Port Authority - Transitioning to Renewable Power - World Port Sustainability Program. <https://sustainableworldports.org/project/jawaharlal-nehru-port-authority-transitioning-to-renewable-power/>

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## FROM PLANNING TO EXECUTION: OPERATIONAL STRATEGIES USED IN COMMUNITY EVENT ORGANIZATIONS

*Disha Esasriya*

### Abstract

Community event organizations play an important role in bringing people together and strengthening social relationships within a locality. These organizations are responsible for planning and executing various events such as festivals, cultural programs, social gatherings, and community celebrations. The success of such events largely depends on effective operational strategies including planning, coordination, communication, and resource management. The purpose of this research is to study the operational strategies used by community organizations from the planning stage to the final execution of events. The study also examines common challenges faced during event organization and suggests possible improvements. Primary data for this research was collected through a survey using a Google Form, while secondary data was gathered from articles and academic sources related to event management and organizational planning. The findings reveal that proper planning, teamwork, communication, and efficient resource utilization are the key factors contributing to successful community events. The research highlights the importance of structured operational strategies even in non-profit community organizations and provides recommendations for improving event planning and execution.

### Introduction

Community events play an important role in developing social connections and strengthening relationships among residents of a locality. Events such as cultural festivals, religious celebrations, sports competitions, and social gatherings provide opportunities for community members to interact and participate in collective activities. Community organizations are usually responsible for planning and organizing these events.

Although these organizations may not operate as professional event management companies, they still follow certain operational strategies to ensure the smooth functioning of events. Event organization involves multiple stages including planning, coordination, budgeting, communication, and final execution.

The planning stage is the foundation of any successful event. During this stage, organizers decide the purpose of the event, assign responsibilities, estimate budgets, and plan necessary arrangements. Proper planning helps avoid confusion and ensures that all activities are completed on time.

Once planning is completed, the preparation stage begins. This stage includes arranging venues, organizing volunteers, promoting the event, and managing resources. Communication between organizers and participants also becomes essential during this phase.

Finally, the execution stage involves managing the event on the day it takes place. Organizers must ensure that all arrangements are functioning properly and that any unexpected problems are handled efficiently.

Despite careful planning, community organizations often face challenges such as limited resources, volunteer shortages, and coordination difficulties. However, through teamwork and effective operational strategies, many community events are successfully conducted.

This research aims to examine the operational strategies used by community event organizations from planning to execution and understand the key factors that contribute to successful event management.

### Objectives of the Study

The study is conducted with the following objectives:

1. To understand the planning process used in community event organizations.
2. To identify operational strategies used during event execution.

3. To analyze the challenges faced while organizing community events.
4. To evaluate the role of teamwork and communication in successful event management.
5. To suggest possible improvements in community event planning and execution.

### **Literature Review**

Event management has been widely studied as an important field within management and organizational studies. According to Bowdin et al. (2011), event management involves planning, organizing, and coordinating various activities to ensure the successful execution of events. Proper planning allows organizers to allocate resources efficiently and avoid operational problems.

Allen et al. (2010) emphasize that communication and teamwork are essential elements in event planning. Successful events require cooperation among organizers, volunteers, and participants. Clear communication helps reduce misunderstandings and ensures smooth coordination.

Getz (2012) explains that community events play a significant role in promoting social interaction and cultural development. These events create opportunities for community members to participate in shared experiences and strengthen their sense of belonging.

Goldblatt (2014) highlights that event management involves multiple operational tasks including budgeting, logistics management, scheduling, and audience coordination. Even small community events require structured planning and organization to achieve successful outcomes.

Another important aspect discussed in the literature is volunteer management. Many community events rely heavily on volunteers who assist in different operational tasks. Effective leadership and clear role allocation help improve volunteer performance and event efficiency.

Overall, existing literature indicates that structured operational strategies such as planning, communication, teamwork, and resource management are crucial for successful event management. This study explores how these strategies are applied within community event organizations.

### **Research Methodology**

#### **Research Design**

The study follows a descriptive research design to understand operational strategies used in community event organizations.

#### **Data Collection**

Two sources of data were used for the research.

##### **Primary Data:**

Primary data was collected through a survey conducted using a Google Form questionnaire.

##### **Secondary Data:**

Secondary data was collected from books, research papers, and online academic sources related to event management and community organizations.

#### **Sample Size**

A total of 26 respondents participated in the survey. The respondents included organizers, volunteers, and participants who have experience attending or helping in community events.

#### **Data Collection Tool**

The questionnaire included questions covering planning, execution, challenges, and suggestions for improvement in community event management.

### Results / Research Findings

The survey results provided useful insights into the operational strategies used in community event organizations. [n=26]

TABLE 1:

Age group distribution

AGE GROUP	COUNT	PERCENTAGE
Under 18	3	11.5%
18-25	22	84.6%
26-35	0	0%
36-50	2	7.7%

TABLE 2

Role in community events

ROLE	COUNT	PERCENTAGE
Organizer	4	15.4%
Volunteer	6	23.1%
Participant/ Attendee	15	57.7%
Sponsor	1	3.8%

TABLE 3

Proper planning is important?

PLANNING	COUNT	PERCENTAGE
Strongly Agree	9	34.6%
Agree	15	57.7%
Neutral	2	7.7%
Disagree	0	0%

TABLE 4

Important factor in event planning?

FACTOR	COUNT	PERCENTAGE
Budget management	5	19.2%
Team coordination	17	65.4%
Venue arrangement	3	11.5%
Promotion and communication	1	3.8%

TABLE 5

Challenges during community events?

CHALLENGES	COUNT	PERCENTAGE
Poor coordination	1	3.8%
Budget limitations	7	26.9%
Lack of volunteers	7	26.9%
Technical issues	2	7.7%
Crowd management	9	34.6%

TABLE 6

Would you like to volunteer in organizing community events in future?

VOLUNTEER	COUNT	PERCENTAGE
Yes	12	46.2%
No	3	11.5%
Maybe	11	42.3%

TABLE 7

Rating on execution of events

RATING	COUNT	PERCENTAGE
1	0	0%

2	1	3.8%
3	11	42.3%
4	7	26.9%
5	7	26.9%

Average rating is 3.77

## Discussion

The findings of this study highlight the importance of operational strategies in community event management. Planning plays a central role in organizing events effectively. When organizers create clear plans and allocate responsibilities properly, the chances of success increase significantly.

Team coordination is another essential factor. Community events often involve several volunteers and organizers working together. Clear communication and teamwork help ensure that tasks are completed efficiently.

Budget management also plays a crucial role in the planning process. Community organizations usually rely on limited financial resources such as donations or sponsorships. Therefore, careful financial planning is necessary to avoid unnecessary expenses.

The challenges identified in the survey, such as coordination problems and volunteer shortages, are common issues faced by many community organizations. However, effective leadership and communication can help reduce these problems.

By implementing structured operational strategies, community organizations can improve their event management practices and ensure smoother event execution.

## Conclusion

Community event organizations play a significant role in strengthening social relationships and promoting cultural engagement within communities. The successful organization of these events depends largely on effective operational strategies implemented during the planning and execution stages.

The findings of this research indicate that proper planning, teamwork, communication, and resource management are the key factors that contribute to successful community events. Although community organizations often face challenges such as limited resources and coordination difficulties, these challenges can be addressed through structured planning and effective leadership.

The study highlights the importance of adopting organized operational strategies to improve the efficiency of community event management. By focusing on better planning, improved communication systems, and effective teamwork, community organizations can enhance the overall quality of their events and provide better experiences for participants.

## References

1. Allen, J., O'Toole, W., Harris, R., & McDonnell, I. (2010). *Festival and Special Event Management*. Wiley.
2. S Bowdin, G., Allen, J., O'Toole, W., Harris, R., & McDonnell, I. (2011). *Events Management*. Routledge.
3. Getz, D. (2012). *Event Studies: Theory, Research and Policy for Planned Events*. Routledge.
4. Goldblatt, J. (2014). *Special Events: Creating and Sustaining a New World for Celebration*. Wiley.
5. Shone, A., & Parry, B. (2013). *Successful Event Management*. Cengage Learning.

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## FROM UNPAID FAMILY HELPERS TO RECOGNIZED ECOPRENEURS: A CASE STUDY OF LEAF-PLATE (DHONCHI) MANUFACTURING IN TRIBAL BELTS

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### Abstract

The study analyses socio-economic transformation experienced by tribal women from the Dhonchi area of the Indian Sundarbans. These women have historically held the status of 'unrecognized' labourers in the subsistence forest economy and are now on their way to becoming Ecopreneurs as a result of engaging in the semi-mechanized manufacture of leaf plates. This is a descriptive research study that predominantly relies on secondary data. It looks at how female labour has been formalized through the combination of Self-Help Group (SHG) models and mechanization.

The analysis highlights the transition from manual stitching by hand of Sal and Areca leaves to mechanically producing through hydraulic presses, an action resulting in an approximately 30-40% increase to household incomes. In addition, the establishment of production using a 'zero-waste' model results in a sustainable business model.

The Dhonchi model of producing leaf plates has been determined to serve as a scalable model for rural empowerment and stewardship of the environment by finding a means of integrating traditional ecological knowledge with modern micro-industrial technology and moving women from the periphery of unpaid family labour into the centre of validated green entrepreneurs.

**Keywords:** Ecopreneurship, Dhonchi, Tribal Women, Self-Help Groups (SHGs), Leaf-Plate Manufacturing, Mechanization, Sundarbans, Female Labor Formalization, Climate Resilience, Circular Economy.

### Introduction

Rural livelihoods in forest-dependent regions of India have historically relied on the extraction of natural resources. In many tribal communities, women have traditionally engaged in activities such as collecting firewood, forest leaves, and other non-timber forest products (NTFPs) for minimal wages. These activities generated only small financial returns which resulted in communities becoming dependent on exploitative relationships with middlemen and local traders. However, in recent years, sustainable resource-based livelihood alternatives have started to become available. Ecopreneurship serves as an organizational method which combines ecological sustainability with entrepreneurial business operations. In the Sundarbans forest areas of West Bengal, ecopreneurship manifests through small businesses which operate sustainable resource systems without harming natural habitats. Sal and areca leaf plate production represents a major eco-friendly business model because it uses natural materials to create sustainable products. These plates serve as biodegradable products which offer a sustainable solution to plastic waste through their environmental-friendly design. Tribal women from multiple regions of the Sundarbans have united to establish Self-Help Groups (SHGs) which now produce leaf plates through the use of manual and hydraulic pressing technologies. The new system has allowed women to transition from their previous roles as low-income forest workers to become rural market entrepreneurs who operate small businesses. The village of Dhonchi located within Patharpratima block of South 24 Parganas district serves as an emerging example of this transformation. The village lacks precise statistical information, yet the general regional pattern shows that women led SHGs that receive leadership which operates for sustainable micro-enterprises which depend on forest byproducts. The projects create revenue streams while they help protect the environment and build climate resilience in the delicate Sundarbans ecosystem. The study of Dhonchi through ecopreneurship research shows how women in rural areas can reach their economic goals while they develop sustainable income sources and take care of their environmental responsibilities.

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## Objectives of the Study

The present study aims to examine the role of ecopreneurship in transforming the livelihoods of tribal women in Dhonchi village. The specific objectives of the study are:

1. To understand the concept of ecopreneurship and its relevance in rural forest-based economies.
2. To examine the role of Self-Help Groups (SHGs) in promoting women's entrepreneurship in Dhonchi.
3. To explore the environmental significance of leaf-plate production as an eco-friendly alternative to plastic products.
4. To highlight Dhonchi village as a community-driven model of sustainable development that can inspire other rural and tribal communities.
5. To explore how ecopreneurship contributes to climate resilience and livelihood diversification in the climate-vulnerable Sundarbans region.

## Research Methodology

This study adopts a descriptive research design and is based entirely on secondary data to examine the role of ecopreneurship and women-led Self-Help Groups (SHGs) in promoting sustainable livelihoods in Dhonchi village of the Sundarbans region. The descriptive approach is used to understand and explain the existing practices, impacts, and significance of eco-friendly enterprises such as leaf-plate manufacturing carried out by rural women. The data for this study has been collected from various secondary sources, including academic journals, research articles, books, government reports, NGO publications, and credible online resources related to ecopreneurship, sustainable development, rural livelihoods, and women's empowerment. These sources provide valuable insights into the functioning of SHGs, the sustainable use of forest resources, and the socio-economic and environmental context of rural communities in the Sundarbans. The collected information has been analyzed qualitatively through descriptive interpretation and thematic organization, focusing on key aspects such as women's economic empowerment, environmental benefits, climate resilience, and community participation.

## Significance of Self-Help groups in promoting ecopreneurship

Self-Help Groups (SHGs) play a significant role in improving the livelihoods of women in Dhanchi village of the Sundarbans region. In this remote and climate-vulnerable area, SHGs help women access microcredit and financial resources that enable them to start small enterprises such as leaf-plate making. Through SHGs, women also receive training in production techniques, quality control, and basic business management, which helps them transform traditional knowledge into sustainable income-generating activities. By working collectively, members can market their products more effectively and reduce dependence on middlemen, thereby increasing their earnings. In addition to economic benefits, SHGs promote social empowerment by building confidence, encouraging participation in household and community decision-making, and creating a support network among women. Overall, SHGs in Dhanchi contribute to sustainable livelihoods, women's empowerment, and climate-resilient economic activities in the Sundarbans.

## Findings and discussion

The analysis of available literature and regional case studies reveals several important dimensions of ecopreneurship in Dhonchi and similar rural communities.

1. **Emergence of Women Ecopreneurs:** The establishment of Self-Help Groups has created economic opportunities for rural women who seek to work beyond their domestic responsibilities. Through SHGs, women gain access to credit, training, and collective decision-making, which helps them establish small-scale enterprises. Women in leaf-plate manufacturing collect naturally fallen leaves and use pressing machines to create products that they can sell. The process enables them to earn money by themselves while they continue to use resources in a sustainable manner.

2. **The sustainable use of forest resources:** leaf-plate manufacturing which provides an environmentally friendly and sustainable business opportunity. The process uses raw material which includes naturally fallen leaves and therefore does not require tree cutting or forest ecosystem destruction. The practice transforms waste materials into useful products, which demonstrates sustainable resource management practices and circular economy principles.
3. **Environmental Benefits:** The process of creating biodegradable leaf plates generates environmental advantages because it replaces hazardous plastic and disposable materials. The rural women who promote eco-friendly products establish their connection to environmental conservation through their work to decrease plastic waste and environmental pollution. Their business activities create economic advantages while protecting the environment, which serves as the fundamental principle of ecopreneurship.
4. **Economic Empowerment of Women:** Eco-based enterprises provide economic empowerment and financial independence to rural women who take part in these programs. The income from leaf plate sales provides financial support for household expenses that include food and education and healthcare costs. SHG participation enables women to develop their self-assurance and social skills while gaining authority to make choices in their homes and their communities.
5. **Climate Adaptation in the Sundarbans:** The Sundarbans region experiences repeated natural disasters which include cyclones and floods that disrupt agricultural production. The small-scale eco-enterprises operate as a crucial backup method for people to earn income since they do not rely on agricultural activities that depend on climate conditions. The practice of ecopreneurship functions as a climate resilience and adaptation method which enables vulnerable rural communities to adapt to climate change.

### Community-driven approach provides a valuable model

The community-driven approach establishes an effective model for its implementation. The implementation of sustainable development at the grassroots level becomes evident through the case study of Dhonchi village. Sustainable development refers to a pattern of growth that meets the needs of the present generation without harming the ability of future generations to meet their own needs. In Dhonchi development projects seek to achieve three goals which include protecting the environment and advancing economic development and improving social conditions. The village community has adopted practices that protect natural resources while improving the livelihoods of the local population, which closely aligns with the core principles of sustainable development. Environmental sustainability stands as the most essential element of Dhonchi development activities. The villagers have actively participated in conserving natural resources through practices such as rainwater harvesting, construction of small check dams, watershed management, and afforestation. The programs contribute to water conservation and soil fertility enhancement and protection against land degradation. The community maintains forest protection and responsible natural resource management to ensure future generations will have access to these resources.

The Dhonchi model establishes economic sustainability as its primary sustaining element. The villagers have improved their livelihoods through diversified agriculture, livestock rearing, and the sustainable use of forest resources. They practice mixed farming with locally available resources instead of depending on one income source. The system increases household income while decreasing the risk of crop failure and environmental changes. The practices create an economic system which enables rural communities to sustain themselves without external support. The community demonstrates social sustainability through its active involvement in both decision-making and development work. Local institutions in the form of self-help groups and village committees enable different community members, particularly women and tribal groups, to work together for communal development. The village health and education programs, sanitation initiatives, and environmental conservation programs enhance the overall quality of life in the village.

Community involvement and sustainable natural resource management and livelihood diversification should be used to replicate the Dhonchi model in all villages and tribal territories. The three sectors of government and non-governmental organizations and local institutions should establish their partnership for providing training and financial assistance and technical expertise to communities. The other villages can develop sustainable practices when they engage local residents in their planning and decision-making processes while

also honoring traditional knowledge systems. Dhonchi shows how sustainable development becomes possible when environmental protection and economic development and community engagement work together as one system. The community-driven approach of the project creates a successful development model which can be used to achieve sustainable development and better living conditions in all tribal and rural areas.

### Conclusion

The study highlights the importance of ecopreneurship as a pathway for promoting sustainable livelihoods and women's empowerment in rural communities. In regions like the Sundarbans, where environmental challenges and economic vulnerability are significant, eco-friendly enterprises offer viable alternatives to traditional livelihoods.

Dhonchi village represents a micro-level example of this broader transformation. Through participation in Self-Help Groups and small-scale enterprises such as leaf-plate manufacturing, tribal women are gradually shifting from low-paid forest labor to entrepreneurial activities. Dhonchi demonstrates that sustainable development is achievable when environmental conservation, economic growth, and social participation are integrated. Its community-driven approach provides a valuable model that can be replicated in other tribal and rural regions to ensure long-term development and improved living conditions.

These initiatives demonstrate how local communities can utilize natural resources responsibly while generating income and improving their socio-economic conditions. Moreover, the production of biodegradable products contributes to environmental conservation and reduces reliance on plastic materials. Although detailed empirical data on Dhonchi remains limited, existing regional studies strongly suggest that eco-based enterprises can play a crucial role in promoting sustainable development, women's empowerment, and climate resilience in vulnerable rural areas.

The Dhonchi village experience from the Sundarbans region demonstrates how ecopreneurship can function as a sustainable development driver for rural areas. The success of women-led enterprises, particularly leaf-plate manufacturing through Self-Help Groups (SHGs), shows that even small-scale initiatives based on locally available natural resources can create meaningful economic opportunities while protecting the environment. The rural women demonstrated how they developed sustainable enterprises by using naturally fallen leaves to create biodegradable products. This model serves as an inspiration for other rural and tribal communities facing similar economic and environmental challenges. The approach utilizes community participation together with collective action and women empowerment to create sustainable transformation.

The SHGs enable women to receive financial assistance and training while they build confidence and leadership abilities and establish social connections. Women participate actively in generating household income while they contribute to community progress. The Dhonchi approach demonstrates how sustainable methods assist communities in their battle against climate change effects which threaten the Sundarbans region. The villagers create more resilient local economies by establishing eco-friendly businesses which reduce their need for climate-dependent agricultural practices. The Dhonchi model demonstrates how community-based projects achieve enduring development through local institutional support and sustainable resource management. Other villages can draw inspiration from this approach by promoting eco-based livelihoods, strengthening Self-Help Groups, and encouraging community-led conservation practices. In this way, ecopreneurship can become a pathway toward environmental protection, economic stability, and social empowerment in rural areas.

### References

1. Government of West Bengal. (2020). *Block Profile of Sundarbans Region*. Department of Sundarban Affairs.
2. Rabindra Bharati University. (2020). *Socio-economic conditions in the Sundarbans region*.
3. Giri, P. (2025). Life and livelihood of women in the Sundarbans: A survey. *International Journal of Research and Scientific Innovation*, 12(10), 4208–4213.
4. Mandi, S., Majumdar, P., & Sahu, S. (2019). *Work-related musculoskeletal disorders of tribal female Sal leaf platemakers*. BLDE University Journal of Health Sciences.



5. Singh, G. (2020). *Making sal leaf plates lifts women out of poverty*. VillageSquare.in.
6. FMC. (2024). *Sal Leaf Plate Cluster, Mayurbhanj: A case study*. Cluster Development and Poverty Alleviation Case Study Book.
7. *The Rise of Siali Leaf Plates as a Sustainable Livelihood Option*. SocialDhara (2023).
8. *Turning over a new leaf, tribal women from Odisha's Sundargarh become self-reliant*. New Indian Express (2023).
9. SocialDhara. (2023). The rise of Siali leaf plates as a sustainable livelihood option. *SocialDhara*.
10. New Indian Express. (2023, March 18). Turning over a new leaf: Tribal women from Odisha's Sundargarh become self-reliant. *New Indian Express*.

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## INCLUSIVE ENTREPRENEURSHIP: EMPOWERING THE NEXT GENERATION OF FOUNDERS IN EMERGING ECONOMIES

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### Abstract

Inclusive entrepreneurship has emerged as a transformative approach to economic development by expanding access to entrepreneurial opportunities for underrepresented and marginalized groups. While traditional entrepreneurship ecosystems have often favored individuals with social capital, financial backing, and institutional networks, inclusive entrepreneurship seeks to democratize participation by addressing structural barriers faced by women, youth, persons with disabilities, rural populations, and socio-economically disadvantaged communities.

This research investigates how inclusive entrepreneurship can empower the next generation of founders in emerging economies, with special reference to India. The study adopts a mixed-method approach involving primary data collected from 150 aspiring and early-stage entrepreneurs across urban and semi-urban regions, supplemented by secondary data from policy reports, academic literature, and institutional publications. The findings indicate that access to digital platforms, mentorship networks, financial inclusion mechanisms, and skill-based incubation significantly enhance entrepreneurial participation among marginalized groups. However, systemic challenges such as credit bias, limited market access, socio-cultural constraints, and regulatory complexities continue to impede equitable growth.

The study concludes that inclusive entrepreneurship is not merely a social initiative but a strategic economic imperative. By fostering diverse founder ecosystems, economies can unlock innovation, employment generation, and sustainable development. Policy reforms, institutional collaborations, targeted funding models, and educational restructuring are recommended to strengthen inclusive entrepreneurial frameworks.

**Key Words:** Inclusive Entrepreneurship; Youth Empowerment; Financial Inclusion; Startup Ecosystem; Social Equity

### Introduction

Entrepreneurship has long been recognized as a catalyst for economic growth, innovation, and employment generation. However, conventional entrepreneurial ecosystems often privilege individuals with access to financial capital, elite education, urban networks, and social mobility. This concentration of opportunity creates structural inequities, excluding large segments of society from participating in wealth creation and enterprise development.

Inclusive entrepreneurship seeks to bridge this divide. It refers to policies, programs, and institutional mechanisms designed to support individuals from underrepresented groups in starting and sustaining businesses. These groups may include women, youth from economically weaker sections, rural entrepreneurs, persons with disabilities, first-generation founders, and minority communities.

In emerging economies such as India, where demographic dividends coexist with socio-economic disparities, inclusive entrepreneurship assumes critical importance. With over 65% of the population below the age of 35, India possesses enormous entrepreneurial potential. However, access to capital, mentorship, and networks remains unevenly distributed. Government initiatives such as Startup India, Stand-Up India, and Digital India have attempted to democratize access, yet disparities persist.

The next generation of founders is digitally native, socially aware, and innovation-driven. They are more inclined toward purpose-driven ventures, sustainability, and social impact. However, without inclusive

frameworks, this generation risks replicating existing inequalities. Therefore, this study explores how inclusive entrepreneurship can empower emerging founders and contribute to sustainable economic development.

### Literature Review

Entrepreneurship literature has traditionally emphasized innovation, risk-taking, and opportunity recognition. Schumpeter (1934) described entrepreneurs as agents of creative destruction, while later scholars focused on opportunity exploitation and venture growth models. However, these frameworks often overlooked social stratification and unequal access to entrepreneurial resources.

Recent scholarship highlights the importance of diversity and inclusion within entrepreneurial ecosystems. Studies suggest that heterogeneous founding teams enhance creativity, problem-solving capacity, and market responsiveness. Women entrepreneurs, for instance, have demonstrated strong resilience and community-oriented business models, yet face funding discrimination and social biases.

Research on youth entrepreneurship indicates that early exposure to entrepreneurial education significantly increases venture creation rates. However, lack of collateral, credit history, and professional networks remains a barrier. Similarly, rural entrepreneurship literature identifies infrastructural limitations and market isolation as critical challenges.

Financial inclusion research underscores the importance of microfinance, fintech platforms, and alternative credit scoring in expanding access to capital. Digital ecosystems have reduced entry barriers by enabling e-commerce, remote services, and digital marketing.

Despite growing recognition, many studies focus on isolated demographics rather than an integrated inclusive framework. There remains limited empirical analysis on how inclusive policies collectively impact next-generation founders in emerging economies. This study attempts to bridge that gap.

### Research Gap

Existing literature primarily examines entrepreneurship from economic or innovation perspectives, with limited focus on systemic inclusion. Studies addressing women, youth, or rural entrepreneurs are often segmented and lack comparative analysis. Furthermore, limited empirical research evaluates how digital transformation, policy initiatives, and ecosystem support jointly influence inclusive entrepreneurial participation.

There is also a lack of integrated frameworks that combine financial access, mentorship, policy support, and social capital development under one inclusive model. Hence, this study fills the gap by analyzing inclusive entrepreneurship holistically with primary data evidence.

### Research Objectives

1. To examine the concept and dimensions of inclusive entrepreneurship.
2. To assess barriers faced by underrepresented aspiring entrepreneurs.
3. To evaluate the role of digital platforms and financial inclusion in empowering founders.
4. To analyze policy and institutional support mechanisms.
5. To propose strategic recommendations for strengthening inclusive entrepreneurial ecosystems.

### Research Methodology

This study adopts a mixed-method research design combining quantitative and qualitative approaches.

**Sample Size:** 150 respondents

**Sampling Method:** Stratified random sampling

**Respondent Profile:** Aspiring entrepreneurs and early-stage founders aged 18–35 from Mumbai, Thane, and select semi-urban regions.

**Data Collection Tools:**

- Structured questionnaire (Likert scale and close-ended questions)
- Semi-structured interviews (20 respondents)
- Secondary data from government reports, academic journals, and policy documents

**Data Analysis Techniques:**

- Descriptive statistics (mean, percentage analysis)
- Thematic analysis for qualitative inputs
- Comparative interpretation

**Analysis & Discussion****Demographic Profile**

- 52% female respondents
- 48% male respondents
- 38% from first-generation entrepreneurial families
- 42% from middle-income households
- 20% from economically weaker sections

**Key Findings from Survey****Access to Capital:**

- 67% reported difficulty in securing formal bank loans.
- 54% relied on personal savings or family funding.
- Only 18% accessed government startup schemes.

**Digital Enablement:**

- 72% used social media platforms for business promotion.
- 63% believed digital platforms reduced entry barriers.

**Mentorship & Networks:**

- 61% lacked structured mentorship.
- 70% expressed need for incubation support.

**Perceived Barriers:**

- Financial constraints (74%)
- Regulatory complexity (58%)
- Social bias (particularly women respondents – 49%)
- Market access limitations (52%)

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## Discussion

The analysis reveals that digitalization has partially democratized entrepreneurship. However, financial access remains the most significant bottleneck. Women respondents particularly cited credibility challenges in loan approval processes. Youth founders lacked formal business training, highlighting gaps in entrepreneurial education.

Policy awareness is low despite government initiatives. Institutional bridging mechanisms between academia and industry remain underdeveloped. Inclusive entrepreneurship requires ecosystem-level collaboration rather than isolated interventions.

## Research Findings

1. Financial exclusion is the primary barrier to inclusive entrepreneurship.
2. Digital platforms significantly enhance accessibility but do not replace structural support.
3. Mentorship and incubation are critical success factors.
4. Women and first-generation entrepreneurs face higher entry barriers.
5. Policy initiatives exist but suffer from awareness and implementation gaps.

## Conclusion

Inclusive entrepreneurship represents a paradigm shift from elite-centric startup ecosystems to democratized opportunity frameworks. Empowering the next generation of founders requires systemic reform that integrates financial inclusion, digital enablement, mentorship, policy simplification, and educational transformation.

Emerging economies stand to benefit substantially from inclusive founder ecosystems through innovation diversity, job creation, and equitable growth. Inclusion must be embedded within entrepreneurial culture, policy design, and institutional practices to ensure sustainable development.

## Recommendations

1. Develop alternative credit assessment models using fintech and AI-based scoring.
2. Strengthen university-incubation linkages.
3. Launch targeted mentorship programs for women and rural youth.
4. Simplify regulatory compliance for early-stage ventures.
5. Increase awareness campaigns regarding startup schemes.
6. Promote inclusive venture capital funds.
7. Introduce entrepreneurship education at undergraduate level.

## Scope for Future Research

Future studies may conduct longitudinal research to track venture performance among inclusive founders. Comparative studies between developed and emerging economies could offer deeper insights. Sector-specific inclusive entrepreneurship (green startups, digital startups, social enterprises) also warrants further investigation.

## Limitations

1. Study restricted to selected regions in Maharashtra.
2. Sample size limited to 150 respondents.

3. Self-reported data may include perceptual bias.
4. Cross-sectional design limits long-term causal inference.

### References

1. Acs, Z. J., Szerb, L., & Autio, E. (2018). Global entrepreneurship and development index. Springer.
2. Audretsch, D. B., & Belitski, M. (2021). Entrepreneurial ecosystems in cities. *Small Business Economics*, 56(2), 1–17.
3. Brush, C. G., Greene, P. G., & Welter, F. (2019). Women entrepreneurs and the global environment for growth. Edward Elgar.
4. Minniti, M. (2016). The role of government policy on entrepreneurial activity. *Entrepreneurship Theory and Practice*, 32(5), 779–790.
5. OECD. (2017). Inclusive entrepreneurship policies. OECD Publishing.
6. Shane, S. (2003). *A general theory of entrepreneurship*. Edward Elgar.
7. World Bank. (2020). Financial inclusion overview. World Bank Publications.
8. Government of India. (2022). Startup India progress report. Ministry of Commerce and Industry.

# IMPACT OF GIG WORKER INTEGRATION ON AGRITOURISM BUSINESS SUSTAINABILITY: A CASE STUDY OF KONKAN REGION

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## Abstract

This research paper examines the intersection of gig worker integration and agritourism sustainability in the Konkan region of Maharashtra, India. As agritourism emerges as a viable diversification strategy for farmers facing labor shortages and income volatility, the integration of gig workers—including temporary, seasonal, and platform-based labor—presents both opportunities and challenges for business sustainability. Through a case study approach drawing on secondary data from agricultural research institutions, industry publications, and regional case studies, this paper analyzes how gig worker models are reshaping agritourism operations across Konkan's five districts. The findings reveal that gig worker integration addresses critical labor shortages while introducing new complexities related to service quality, training requirements, and regulatory compliance. The paper proposes a sustainability framework encompassing economic viability, social equity, and environmental stewardship, concluding with recommendations for policy interventions and future research directions.

**Keywords:** agritourism, gig economy, sustainability, Konkan region, rural tourism, labor dynamics.

## 1. Introduction

### 1.1 Background

The Konkan region, stretching along Maharashtra's western coastline, encompasses the districts of Thane, Palghar, Raigad, Ratnagiri, and Sindhudurg. This region is characterized by lush green landscapes, pristine beaches, rich biodiversity, and a distinctive agricultural heritage centered on rice cultivation, mango orchards, coconut plantations, and spice gardens. Despite its natural endowments, the region has grappled with significant socio-economic challenges, particularly the outmigration of youth to urban centers in search of employment opportunities.

Agritourism has emerged as a promising pathway for rural development in Konkan. Defined as the practice of hosting visitors on working farms for educational and recreational purposes, agritourism enables farmers to diversify income streams while offering urban populations authentic rural experiences. The concept gained traction in Maharashtra following pioneering efforts at farms such as Saguna Baug in Neral and Kapre Wadi in Alibaug. Today, the Maharashtra Tourism Development Corporation (MTDC) has registered approximately 250 agritourism enterprises across the state.

### 1.2 The Labor Challenge in Konkan Agriculture

A critical challenge confronting Konkan's agricultural sector is the acute shortage of farm labor. Traditional rice planting ("bhat lavani") during the monsoon season—once a community activity involving mutual collaboration among farming families—now faces labor deficits as younger generations migrate to cities. Dr. Vinod Bidwaik observes that "the young folks, who once worked the fields with their parents, have migrated to the cities in search of different dreams, leaving a void in the rice paddies". This labor gap threatens not only agricultural productivity but also the viability of farm-based tourism enterprises that depend on maintaining active farming operations.

### 1.3 The Gig Economy Context

Concurrently, India has witnessed exponential growth in the gig economy—a labor market characterized by short-term, flexible engagements mediated increasingly through digital platforms. While gig work has

typically been associated with urban sectors such as transportation and food delivery, its penetration into rural and agricultural contexts represents an emerging phenomenon worthy of scholarly attention.

This paper addresses the following research questions:

1. How are gig workers being integrated into agritourism operations in the Konkan region?
2. What is the impact of gig worker integration on the economic, social, and environmental sustainability of agritourism businesses?
3. What challenges and opportunities arise from this integration model?

#### **1.4 Significance of the Study**

Understanding the relationship between gig worker integration and agritourism sustainability is timely and consequential. For policymakers, insights from Konkan can inform strategies to promote rural employment and tourism development. For agritourism entrepreneurs, understanding optimal labor models can enhance business performance. For academics, this study contributes to the emerging literature on platformization of rural work and sustainable tourism transitions.

## **2. Literature Review**

### **2.1 Conceptualizing Agritourism**

Agritourism occupies a distinctive position at the intersection of agriculture and tourism. Sharpley and Sharpley (1997) conceptualized rural tourism as encompassing farm-based accommodations, activities, and experiences that allow visitors to engage with agricultural settings. McGehee and Kim (2004) identified motivations for agritourism entrepreneurship, including economic diversification, social interaction, and educational objectives.

In the Indian context, agritourism has been recognized as an "imminent sunrise sector for rural development" (Sharma and Vyas, 2014). Mr. Pandurang Taware, former director of the Agricultural Tourism Development Corporation in Konkan, has documented how agritourism functions as an "innovative supplementary income generating activity for enterprising farmers". The sector enables farmers to monetize their existing assets—land, crops, livestock, and traditional knowledge—while providing visitors with authentic rural experiences.

### **2.2 Sustainability Frameworks in Tourism**

Sustainable tourism development rests on three interconnected pillars: economic viability, social equity, and environmental protection (United Nations World Tourism Organization). In rural contexts, sustainability additionally encompasses the preservation of cultural heritage, traditional livelihoods, and community cohesion.

Research by Kumar and Singh (2021) examined the economic impacts of sustainable tourism in rural areas, finding that community-based models generate more equitable distribution of benefits. Mehta and Sharma (2021) explored the implications of cultural heritage tourism for rural communities, emphasizing the need to balance commercialization with authenticity. Gupta (2019) analyzed challenges and opportunities in sustainable rural tourism, identifying infrastructure deficits, market access constraints, and environmental pressures as key concerns.

### **2.3 The Gig Economy: Definitions and Debates**

The gig economy refers to labor markets characterized by short-term, flexible work arrangements, often mediated by digital platforms that connect workers with consumers. While gig work offers flexibility and low barriers to entry, concerns persist regarding job security, benefits, and worker protections.

In agricultural contexts, gig labor is not entirely new—seasonal harvest work has long been organized on temporary bases. However, platform-mediated gig work introduces novel dynamics: algorithmic management,

reputational systems, and disintermediation of traditional labor relationships. The application of gig models to agritourism represents an underexplored area of inquiry.

## 2.4 Agritourism in Konkan: Existing Research

Several studies have examined agritourism in Konkan. A comprehensive study conducted by Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli in 2021 surveyed 40 agritourism centers across the region's five districts . Key findings included:

- 65% of agritourism center owners belonged to the middle age group
- 67.5% possessed graduation-level or higher education
- 100% cited "additional source of income" as their primary motivation
- 82.5% operated as sole proprietors
- 95% of visitors were family groups
- "Mouth to mouth publicity" was the primary marketing channel for 80% of centers

Deodhar and Beer (2020) conducted a critical analysis of guest engagement in Konkan agritourism, identifying novelty-seeking, desire for peaceful natural environments, and nostalgic connections as primary visitor motivations . Importantly, their research revealed that visitors exhibited "social awareness/responsibility" and "sustainability" concerns, actively seeking opportunities to support local communities through their tourism choices .

## 2.5 Research Gap

Despite growing scholarly attention to both agritourism and the gig economy, limited research examines their intersection. Specifically, how agritourism enterprises in rural regions are adapting to labor shortages through gig worker integration, and with what sustainability implications, remains underexplored. This paper addresses this gap through a case study of Konkan.

## 3. Research Methodology

### 3.1 Research Design

This study employs a qualitative case study approach, appropriate for exploring complex social phenomena within their real-world contexts. The case study method enables in-depth examination of how gig worker integration manifests across diverse agritourism settings while attending to contextual factors specific to Konkan.

### 3.2 Data Sources

Data were collected from multiple secondary sources:

1. Academic literature: Peer-reviewed journal articles examining agritourism in Konkan and India, including studies by Deodhar and Beer (2020), Havale et al. (2023), and the Konkan Krishi Vidyapeeth research
2. Industry publications: Articles from agriculture information platforms, tourism industry sources, and business publications documenting agritourism enterprises
3. Professional insights: LinkedIn articles and professional commentary from practitioners including Dr. Vinod Bidwaik, Sumit Kumtha, and Dr. Manoj Panasare
4. Case documentation: Information on specific agritourism enterprises including Maachli Farmstay, Sonkan, and Kapre Wadi

### 3.3 Analytical Framework

Data analysis employed thematic analysis, coding textual data for patterns related to labor practices, sustainability outcomes, challenges, and opportunities. The analysis was guided by a sustainability framework encompassing economic, social, and environmental dimensions.

### 3.4 Limitations

This study relies on secondary data and does not include primary data collection through interviews or surveys with agritourism operators or gig workers. The absence of platform-level data on gig worker engagement in agritourism limits the ability to quantify the scale of this phenomenon. These limitations suggest opportunities for future primary research.

## 4. Agritourism Landscape in Konkan Region

### 4.1 Historical Development

Agritourism in Konkan traces its origins to individual farmer initiatives in the 1990s. Shekhar Kapre, a BSc agriculture graduate, transformed his three-acre beachfront farm in Alibaug into Kapre Wadi in 1991, initially as a weekend getaway that gradually evolved into a commercial venture offering nine cottages amidst coconut groves and spice gardens. This pioneering effort demonstrated the viability of farm-based tourism and inspired subsequent entrants.

The period 2011-2015 witnessed accelerated growth, with 42.5% of agritourism enterprises in Konkan established during these years. This expansion coincided with growing urban demand for experiential travel and increased policy attention to rural tourism.

### 4.2 Geographic Distribution and Characteristics

Agritourism centers are distributed across Konkan's five districts, with varying concentrations. The Krishi Vidyapeeth study documented enterprises ranging from small operations on less than one hectare to larger establishments with substantial infrastructure.

Key characteristics of Konkan agritourism centers include:

| Characteristic | Finding |

|-----|-----|

| Primary crops | Rice (90%), vegetables (85% rabi), mango (95% perennial) |

| Registration | 30% registered with MTDC |

| Ownership structure | 82.5% sole proprietorship |

| Capital source | 85% owned capital |

| Initial investment | 67.5% medium category |

| Accommodation | 32.5% offer four rooms; 57.5% offer dormitory |

| Food services | 80% offer both vegetarian and non-vegetarian options |

| Peak season | Winter (65% preference); weekends (100% occupancy) |

### 4.3 Visitor Profile and Motivations

Understanding visitor characteristics is essential for designing appropriate labor models. Deodhar and Beer's (2020) research revealed that agritourism visitors to Konkan are motivated by:

- ❖ Novelty and experiential learning: Urban residents seek authentic engagement with rural life, including hands-on participation in farming activities
- ❖ Nostalgia and reconnection: Many visitors have family origins in rural areas and use agritourism to reconnect with their heritage
- ❖ Educational objectives: Parents value agritourism as an opportunity to educate children about food sources and farming realities
- ❖ Social responsibility: Visitors increasingly view their participation as supporting local communities.

Critically, visitors "did not like to be the only observers at the venue" and expected participation in "hardcore agricultural activities". This desire for authentic engagement has direct implications for labor requirements and the potential role of gig workers in facilitating visitor experiences.

#### 4.4 Economic Significance

Agritourism contributes to rural economies through multiple channels: direct income from accommodation and activities, employment generation, and market access for farm products. The Krishi Vidyapeeth study found that agritourism centers generated "medium employment" for family members (57.5%) and temporary workers (75.5%). Additionally, 87.5% of centers engaged in on-farm direct sales, enabling visitors to purchase fresh produce and processed goods.

#### 4.5 Challenges Facing Agritourism Enterprises

Despite growth, agritourism operators confront significant challenges. The Krishi Vidyapeeth study identified:

- 65% reported lack of training for agritourism operations
- 70% cited weak communication skills among staff
- 100% noted lack of coordination between agriculture and tourism departments
- 90% highlighted low awareness among farmers and tourists
- 80% observed low entrepreneurial culture
- 75% reported lack of cooperation from rural communities
- 100% cited lack of insurance policies for tourists
- 100% identified high bank interest rates as problematic
- 90% noted high electricity tariffs

These challenges underscore the need for innovative approaches to human resource development and operational management—areas where gig worker integration may offer solutions while introducing new complexities.

### 5. Gig Worker Integration in Konkan Agritourism

#### 5.1 Conceptualizing Gig Workers in Agritourism Contexts

In the agritourism context, gig workers encompass several categories:

1. Seasonal agricultural workers engaged during peak farming periods (e.g., rice planting, harvest)
2. Temporary hospitality staff hired for weekend or holiday rushes
3. Platform-mediated workers connected to agritourism enterprises through digital platforms
4. Volunteer-based workers participating in work-exchange programs
5. Specialized service providers (e.g., local artisans, cultural performers) engaged on per-event bases.

#### 5.2 Emergent Models of Gig Integration

##### 5.2.1 Experience-Based Labor Exchange

A notable innovation in Konkan addresses labor shortages through tourism itself. As described by Dr. Vinod Bidwaik, some farmers now offer "rice planting tourism" packages: urban visitors pay approximately Rs. 1,000 to participate in traditional rice planting, receiving rural breakfast and lunch in exchange for their labor.

This model transforms the labor challenge into a tourism opportunity—visitors gain authentic experiences while farmers receive both labor and revenue.

Bidwaik observes: "The best part, after a few hours of hard work, you can proudly pose for selfies, flaunting your new 'farmer' status on social media. The fields, once echoing only with the sounds of traditional folk songs, now also resonate with the laughter of city folks".

**This represents a distinctive gig model:** tourists function as temporary, paid gig workers while simultaneously being the consumers of the tourism experience. The model addresses immediate labor needs while generating positive word-of-mouth marketing through participants' social media engagement.

### 5.2.2 Platform-Mediated Volunteer Placements

International platforms such as Worldpackers facilitate volunteer placements on farms, including in Konkan. One listing for a Konkan farm offers volunteers the opportunity to contribute 5 hours daily to painting, cleaning, farming, and gardening in exchange for tent accommodation, meals, and experiences including free tours and permaculture courses. This work-exchange model represents a form of gig labor where compensation is in-kind rather than monetary.

The platform verifies hosts and provides support services, reducing transaction costs and building trust between farmers and potential volunteers. For agritourism enterprises, such arrangements provide flexible labor while exposing visitors to their operations—potentially generating future paying guests.

### 5.2.3 Local Gig Workers for Hospitality Services

Agritourism enterprises increasingly engage local residents on temporary bases for specific functions. The Krishi Vidyapeeth study documented that 75.5% of centers generated "medium" employment for temporary workers. These engagements include

- Cooking and food service during peak periods
- Guiding farm tours and activities
- Providing traditional craft demonstrations
- Assisting with maintenance and housekeeping

Dr. Manoj Panasare, drawing on Deodhar and Beer's research, recommends that "local staff should be trained in hospitality and customer service for agritourism ventures. Basic grooming sessions with language training would be helpful for them". This recommendation implicitly acknowledges the gig nature of much agritourism employment—workers require specific skills but may not be engaged full-time or permanently.

### 5.2.4 Specialized Gig Providers

As agritourism matures, specialized service providers emerge to meet visitor expectations. Maachli Farmstay in Sindhudurg, founded by Prathamesh Samant, illustrates this trend. The enterprise engages local potters to demonstrate traditional crafts, provides employment for women (80-90% of workers), and collaborates with local artisans. These providers function as gig workers—engaged on demand to enhance visitor experiences while maintaining independent livelihoods.

Samant emphasizes: "We try to revive the forgotten arts such as pottery, we take our guests there, they take part in it. We have one potter who gets good income through pottery".

## 5.3 Technology as Enabler

Technology platforms play an increasingly important role in connecting agritourism enterprises with gig workers and volunteers. The Krishi Vidyapeeth study found that agritourism operators made "regular" use of WhatsApp (92%) and pamphlets (77.5%) for publicity. While these platforms currently serve marketing functions, they also hold potential for labor coordination.

Bidwaik suggests opportunities for "startups like creating the tech platform where the matching of tourist and farmers, adopting the family for certain duration, etc" . Such platforms could formalize and scale gig worker integration in agritourism.

Sumit Kumtha similarly envisions technology-enabled tourism development in Konkan, including "apps and platforms that provide detailed information on eco-friendly practices, biodiversity, and local traditions" . These technologies could extend to labor coordination, enabling farmers to access qualified gig workers efficiently.

## **6. Impact on Agritourism Sustainability**

### **6.1 Economic Sustainability**

#### **6.1.1 Labor Cost Optimization**

Gig worker integration enables agritourism enterprises to align labor costs with revenue fluctuations. By engaging workers only when needed—during weekends, peak seasons, or special events—operators avoid fixed payroll costs that could prove burdensome during lean periods. The rice planting tourism model exemplifies this principle: labor costs become revenue-positive as visitors pay for the privilege of working.

#### **6.1.2 Revenue Diversification**

Beyond cost optimization, gig integration creates new revenue streams. Enterprises can offer specialized experiences—pottery workshops, cooking demonstrations, cultural performances—delivered by gig workers while generating additional income. Maachli Farmstay's engagement of local artisans demonstrates how gig models simultaneously support community livelihoods and enhance enterprise offerings.

#### **6.1.3 Employment Generation**

The Krishi Vidyapeeth study documented significant employment impacts: 57.5% of centers generated "medium" employment for family members, while 75.5% generated "medium" employment for temporary workers. These temporary positions represent gig opportunities for local residents, including women who comprise 80-90% of workers at some enterprises.

#### **6.1.4 Market Access and Value Addition:**

Gig workers, particularly those with specialized skills, enable agritourism enterprises to add value to farm products. Cooking demonstrators showcase traditional recipes, encouraging visitors to purchase local ingredients. Artisans create souvenirs that visitors buy, generating additional income. These multiplier effects enhance the economic sustainability of both enterprises and surrounding communities.

### **6.2 Social Sustainability**

#### **6.2.1 Community Engagement and Empowerment**

Gig integration models that prioritize local hiring contribute to community empowerment. When agritourism enterprises engage local residents as guides, demonstrators, and service providers, economic benefits circulate within communities rather than being extracted by outside interests.

The Maachli Farmstay experience is instructive: "80 to 90% of our workers are women which helps them in villages and to improve the society" . Women's participation in the gig workforce through agritourism can enhance their economic independence and social standing.

#### **6.2.2 Preservation of Traditional Knowledge**

Gig workers serve as carriers of traditional knowledge—farming techniques, culinary traditions, craft skills—that might otherwise disappear as younger generations migrate to cities. By providing platforms for knowledge transmission, agritourism enterprises contribute to cultural sustainability.

Samant notes: "We try to revive the forgotten arts such as pottery, my mother and wife meet the old people from the community to learn old forgotten recipes". This intergenerational knowledge transfer, facilitated through gig engagements, preserves cultural heritage while enhancing visitor experiences.

### **6.2.3 Countering Rural Outmigration**

By creating economic opportunities in rural areas, gig-integrated agritourism may help counter the outmigration that originally created labor shortages. Nitin Deodhar observed that "most of the youths in the village had migrated to nearby cities for jobs" . If agritourism can generate viable livelihoods, some youth may choose to remain in or return to their villages.

However, the gig nature of much agritourism employment—temporary, variable income, lacking benefits—may not fully substitute for stable urban employment. This tension merits further investigation.

### **6.2.4 Visitor Education and Awareness**

Gig workers, particularly those engaged as guides and demonstrators, play crucial roles in visitor education. Through interactions with local workers, visitors gain understanding of farming realities, traditional practices, and community life. Deodhar and Beer's research found that visitors valued "social awareness" and appreciated opportunities to contribute to local welfare through their tourism choices.

## **6.3 Environmental Sustainability**

### **6.3.1 Sustainable Practice Demonstration**

Gig workers with specialized knowledge can demonstrate sustainable practices to visitors. Prathamesh Samant describes Maachli Farmstay's environmental initiatives: "In the last 10 years, we have planted about 5 to 6 thousand trees... We also do rain harvesting here, so there is no water shortage" . Workers engaged in these activities model environmental stewardship for visitors.

### **6.3.2 Low-Impact Operations**

The gig model itself may contribute to environmental sustainability by enabling agritourism enterprises to operate with minimal permanent infrastructure. Rather than constructing large hotels with continuous environmental footprints, farm-based accommodations utilize existing structures and engage temporary workers for specific needs.

### **6.3.3 Biodiversity Awareness**

Gig workers serving as guides can enhance visitor appreciation of local biodiversity. Samant notes that Maachli Farmstay features "dense farms with coconut, betelnut, spices, and mango trees... many different and rare varieties of birds visit the plantation". Knowledgeable guides help visitors recognize and value this biodiversity, fostering conservation awareness.

## **6.4 Challenges and Tensions**

### **6.4.1 Quality Consistency**

Gig worker integration introduces challenges in maintaining consistent service quality. Unlike permanent employees who undergo standardized training, gig workers may have varying skills and motivations. Deodhar and Beer's research emphasized visitors' expectations for authentic experiences, which require competent facilitation.

Dr. Panasare recommends training interventions: "The host and employees should possess basic knowledge of customer handling. Staff should have familiarity with establishment operations, activities and areas resulting in a higher level of guest satisfaction" . Delivering such training to temporary workers presents logistical challenges.

### 6.4.2 Worker Protections and Benefits

Gig workers in agritourism typically lack employment protections, benefits, and stable incomes. While some appreciate flexibility, others may experience precarity. The Krishi Vidyapeeth study identified "lack of insurance policy of tourists" as a concern, but did not address insurance for workers—a significant gap.

### 6.4.3 Training and Skill Development

The need for training extends beyond customer service to include safety protocols, environmental practices, and activity-specific skills. The Krishi Vidyapeeth study found that 65% of operators reported "lack of training for agri tourism" as a problem. Addressing this gap requires investment in training infrastructure accessible to gig workers.

### 6.4.4 Regulatory Compliance

Agritourism enterprises operate at the intersection of agriculture and hospitality regulations. Prathamesh Samant advises: "We should have food and drug license, Udyam Aadhar in Maharashtra, we have agro tourism board that lists these places, verifies authenticity". When gig workers are engaged, questions arise regarding compliance with labor regulations, liability, and insurance—areas where the Krishi Vidyapeeth study found universal concern about "non availability of insurance policy of tourists".

### 6.4.5 Community Relations

While gig integration can strengthen community ties, it may also generate tensions if local residents perceive unequal benefits or cultural commodification. The Krishi Vidyapeeth study noted "lack of co-operation in rural people" as a problem reported by 75% of operators. Careful attention to equitable benefit distribution and community engagement is essential.

## 7. Discussion

### 7.1 Synthesizing Findings: A Sustainability Framework for Gig-Integrated Agritourism

The findings suggest that gig worker integration in Konkan agritourism generates complex sustainability outcomes spanning economic, social, and environmental dimensions. Table 2 synthesizes these impacts:

Table 2: Sustainability Impacts of Gig Worker Integration

Dimension	Positive Impacts	Challenges/Tensions
Economic	Labor cost optimization; Revenue diversification; Employment generation; Market access	Income variability for workers; Limited benefits; Training costs
Social	Community empowerment; Knowledge preservation; Counter-migration potential; Visitor education	Quality inconsistency; Cultural commodification risks; Uneven benefit distribution
Environmental	Sustainable practice demonstration; Low operational footprint; Biodiversity awareness	Variable environmental compliance; Limited oversight

### 7.2 The Paradox of Gig Labor in Agritourism

A paradox emerges from this analysis:

- gig worker integration simultaneously addresses and perpetuates the labor challenges facing Konkan agriculture.

- By engaging temporary, flexible workers—including tourists themselves—agritourism enterprises overcome immediate labor shortages.

However, this model may not create the stable, attractive employment opportunities that would convince youth to remain in rural areas long-term.

The rice planting tourism model illustrates this paradox brilliantly and problematically. Urbanites pay for the privilege of performing labor that farmers cannot secure through traditional employment channels. While this generates revenue and addresses immediate needs, it may obscure the fundamental issue: agricultural labor is insufficiently valued to attract workers at prevailing wage rates.

### **7.3 Implications for Policy and Practice**

#### **7.3.1 Training Infrastructure**

Dr. Panasare's recommendation for training local staff in hospitality and customer service is critical. However, training programs must accommodate the gig nature of much agritourism employment—delivered flexibly, perhaps through digital platforms, and certifying skills that workers can deploy across multiple enterprises.

#### **7.3.2 Platform Development**

Bidwaik's suggestion of "tech platform where the matching of tourist and farmers" extends beyond tourism to labor coordination. Dedicated platforms could connect agritourism enterprises with qualified gig workers, manage scheduling, facilitate payments, and maintain quality standards through rating systems.

#### **7.3.3 Regulatory Innovation**

The regulatory gaps identified in the Krishi Vidyapeeth study—lack of insurance, high interest rates, electricity tariffs—require policy attention. Additionally, new regulations may be needed to address gig worker protections in agritourism contexts, potentially adapting existing frameworks for platform-mediated work.

#### **7.3.4 Cooperative Models**

The Krishi Vidyapeeth study recorded operator suggestions that "agri-tourism enterprise should start with cooperative bases through the SHGs and NGOs". Cooperative models could enable groups of farmers to pool resources, share gig workers, and achieve economies of scale while maintaining individual enterprise identities.

### **7.4 Theoretical Contributions**

This study contributes to several theoretical conversations:

1. Sustainable tourism literature: Extends sustainability frameworks to incorporate labor practices and gig economy dynamics.
2. Rural development scholarship: Illuminates how tourism and labor innovations intersect in rural contexts.
3. Gig economy research: Expands focus beyond urban, platform-mediated work to include rural and agricultural applications.
4. Agritourism studies: Provides empirical grounding for understanding labor as a sustainability dimension

## **8. Conclusion and Recommendations**

### **8.1 Summary of Findings**

This case study of Konkan region reveals that gig worker integration in agritourism is an emergent phenomenon with significant sustainability implications. Farmers facing acute labor shortages are

innovating—engaging tourists as temporary workers, hosting volunteers through international platforms, hiring local residents on flexible bases, and collaborating with specialized service providers.

These integration models generate positive sustainability outcomes: optimized labor costs, revenue diversification, community empowerment, knowledge preservation, and environmental awareness. However, challenges persist regarding quality consistency, worker protections, training access, and regulatory compliance.

## 8.2. Recommendations

### I. For agritourism entrepreneurs:

1. Invest in training systems that accommodate gig workers' flexible schedules
2. Develop clear protocols for onboarding and supervising temporary workers
3. Explore cooperative arrangements for sharing specialized gig workers
4. Document and share traditional knowledge through structured programs

### II. For policymakers:

1. Establish training infrastructure accessible to gig workers in rural tourism
2. Develop insurance products suitable for agritourism enterprises and workers
3. Create regulatory frameworks that recognize gig employment in agriculture
4. Support platform development for labor coordination in rural tourism

### III. For researchers:

1. Conduct primary research with agritourism operators and gig workers
2. Quantify the scale and economic value of gig integration in agritourism
3. Compare sustainability outcomes across different integration models
4. Track longitudinal impacts on rural employment and outmigration

## 8.3 Future Research Directions

This study's limitations suggest several research directions. Primary data collection through interviews with agritourism operators, gig workers, and visitors would enrich understanding of integration dynamics. Comparative studies across Indian regions or international contexts could identify contextual factors shaping outcomes. Longitudinal research could track whether gig integration ultimately reduces outmigration or perpetuates labor precarity. Finally, action research partnering with agritourism enterprises to develop and test improved integration models could generate both theoretical and practical contributions.

## 8.4 Concluding Reflections

The Konkan region stands at an inflection point. Its natural beauty, agricultural heritage, and cultural richness position it for sustainable tourism development. Yet its labor challenges threaten both agricultural viability and tourism quality. Gig worker integration offers no panacea but represents an adaptive response deserving careful attention.

As urbanites continue seeking authentic rural experiences, and as farmers continue seeking viable livelihoods, the intersection of gig labor and agritourism will likely grow in significance. Whether this intersection generates genuinely sustainable outcomes—economically viable, socially equitable, and environmentally sound—depends on the intentionality with which all stakeholders approach its development.

The story of Konkan's agritourism evolution is still being written. Its chapters will be shaped by farmers' innovations, workers' aspirations, visitors' expectations, and policymakers' responses. This paper has sought to illuminate one dimension of that unfolding narrative, with hope that understanding the present can inform a more sustainable future.

## References

4. Worldpackers. (n.d.). \*Re-generation - Farm Konkan Division, India\*.
5. Bidwaik, V. (2024). \*Konkan's Muddy Getaway, Rice Planting Tourism\*. LinkedIn.
6. Hindustan Times Pune. (2025). \*Deodhar couple started 'Sonkan' with the idea of making life better for villagers in Konkan\*. Magzter.
7. Samant, P. (2025). \*Mr. Prathamesh Samant explains how agro tourism is a profitable business\*. AgricultureInformation.com.
8. Kumtha, S. (2024). \*Konkan's Hidden Gem: How Startups Can Spark Eco, Agro, and Festival Tourism\*. LinkedIn.
9. Tawade, P.P., & Dhar, S. (2024). Empowering Rural Communities Via Sustainable Tourism in the North Konkan Region: Opportunities, Challenges, and Strategies. \*International Journal of Innovative Science and Research Technology\*, 565-577.
10. Panasare, M. (2025). \*Agritourism in the Konkan region of Maharashtra\*. LinkedIn. [citing Deodhar, S., & Beer, S. (2020). A critical analysis of guest engagement in agritourism in the Konkan region of Maharashtra, India. \*Sydenham Management Review\*, 6(1).]
11. Mehta, S. (2006, May 6). Tourism Goes Agro. \*The Indian Express\*.
12. Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli. (2021). \*PROSPECTS AND PROBLEMS OF AGRITOURISM ENTERPRISE IN KONKAN REGION\*. Krishikosh.
13. Havale, D.S., Chaudhari, C., & Jadhav, S. (2023). Innovative Agrotourism Trends- Maharashtra State as a Model for Cross-Cultural Tourism in India. \*Current Agriculture Research Journal\*.
14. McGehee, N. G., & Kim, K. (2004). Motivation for Agro-tourism entrepreneurship. \*Journal of Travel Research\*, 43, 161-170.
15. Sharpley, R., & Sharpley, J. (1997). \*Rural tourism: An introduction\*. Thomson Business Press.
16. Gupta, R. (2019). Sustainable tourism in rural India: Challenges and opportunities. \*Journal of Sustainable Tourism\*, 27(7), 989-1005.
17. Kumar, R., & Singh, A. (2021). Economic impacts of sustainable tourism in rural areas. \*Journal of Sustainable Tourism\*, 29(8), 1239-1256.
18. Mehta, P., & Sharma, N. (2021). Cultural heritage and sustainable tourism: Implications for rural communities. \*Journal of Heritage Tourism\*, 16(5), 520-534.

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## IMPACT OF QUICK COMMERCE ON TRADITIONAL RETAILERS: A STUDY OF LOCAL KIRANA STORES IN VASAI–VIRAR REGION

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### Abstract

In recent years, the retail industry in India has been changing rapidly because of the rise of quick commerce platforms that provide very fast delivery of groceries and daily essentials. These platforms allow customers to order products through mobile applications and receive them within a short time, often within 10 to 20 minutes. Companies such as Blinkit, Zepto, and Swiggy Instamart have become very popular among customers because they offer convenience, time-saving services, and competitive prices.

The growth of these platforms has created new competition for traditional retailers, especially small kirana stores that have been an important part of the local retail system for many years. This research study focuses on understanding how quick commerce is affecting local retailers in the Vasai–Virar region. The study uses both primary and secondary data to understand the experiences and challenges faced by these retailers.

The findings suggest that quick commerce has influenced customer buying behavior and has created pressure on traditional retail businesses. However, kirana stores still continue to have certain advantages such as strong customer relationships, trust, and easy accessibility. The study highlights the need for traditional retailers to adapt to changing market conditions in order to stay competitive in the future.

**Keywords:** Quick Commerce, Kirana Stores, Retail Competition, Consumer Buying Behaviour, Online Grocery Delivery.

### Introduction

In the last few years, the retail sector in India has changed a lot because of technology and changing customer habits. One of the biggest changes is the rise of quick commerce, which allows people to order groceries and daily essentials online and receive them within a very short time. Many customers now prefer convenience and fast delivery instead of visiting nearby stores.

Several quick commerce platforms such as Blinkit, Zepto, and Swiggy Instamart have become very popular in urban areas. These platforms focus on delivering products within minutes, which makes shopping easier and faster for customers.

However, this rapid growth has also created challenges for traditional retailers, especially small kirana stores. For many years, these stores have been an important part of local communities by providing easy access to daily goods and maintaining personal relationships with customers. With the increasing use of quick commerce apps, some customers may prefer ordering online instead of buying from nearby shops.

Because of this shift in consumer behavior, it becomes important to understand how quick commerce is affecting traditional retailers. This study focuses on kirana store owners in the Vasai–Virar region to understand their experiences, the challenges they face, and how the growth of quick commerce is influencing their business.

### Literature Review

In recent years, the concept of quick commerce has gained significant attention in the retail industry. Quick commerce focuses on delivering groceries and essential items within a very short time, usually within 10–20 minutes. This model has changed the way customers shop for daily necessities. According to a report by RedSeer Consulting, the demand for fast delivery services in India has increased rapidly due to urban lifestyles and the growing use of smartphones.

Several quick commerce companies such as Blinkit, Zepto, and Swiggy Instamart have expanded their operations in major cities. Research by Deloitte suggests that the quick commerce model is attracting customers because of convenience, faster delivery, and competitive pricing.

However, the growth of these platforms has also raised concerns for traditional retailers. According to an article published in the Economic Times, many small kirana stores are facing increased competition due to discounts and faster service offered by online platforms.

At the same time, some studies suggest that traditional retailers still have certain advantages. A report by Boston Consulting Group states that local kirana stores continue to play an important role in Indian retail because they provide personal relationships, neighborhood convenience, and flexible credit facilities for customers.

Overall, existing studies show that quick commerce is changing the retail ecosystem, but traditional retailers still have opportunities to adapt and survive by improving their services and adopting digital tools. (RedSeer Consulting, 2023) ,(Deloitte, 2022) ,(Economic Times, 2023)

### **Research Gap**

From the review of previous studies and reports, it is clear that many researchers have discussed the rapid growth of quick commerce and its impact on the retail industry. Several studies explain how quick commerce platforms are changing consumer buying behavior by providing faster delivery and greater convenience.

However, most of the existing studies mainly focus on the overall growth of quick commerce companies and the advantages they provide to customers. Very few studies specifically examine how these platforms are affecting small local retailers at the ground level.

In addition, many reports focus on large metropolitan cities, while limited research has been conducted on the experiences of local kirana store owners in smaller urban regions such as Vasai–Virar.

Because of this gap, it becomes important to study how traditional retailers in this region are experiencing the changes brought by quick commerce. This research therefore focuses on understanding the challenges faced by kirana store owners and how the growth of quick commerce is influencing their businesses.

### **Objectives of the Study**

The main aim of this study is to understand how the rapid growth of quick commerce is influencing traditional retail businesses. The study mainly focuses on the experiences of local kirana store owners in the Vasai–Virar region.

The objectives of this research are:

1. To understand the growth of quick commerce platforms such as Blinkit, Zepto, and Swiggy Instamart in the retail market.
2. To examine how the increasing use of quick commerce services is affecting traditional kirana stores.
3. To identify the major challenges faced by local retailers due to the growing competition from quick commerce platforms.

### **Hypothesis of the Study**

A hypothesis is a statement that can be tested through research and data analysis. In this study, the following hypotheses are considered to understand the impact of quick commerce on traditional retailers.

H<sub>0</sub> (Null Hypothesis):

Quick commerce platforms such as Blinkit, Zepto, and Swiggy Instamart do not have a significant impact on the sales and customer visits of traditional kirana stores.

H<sub>1</sub> (Alternative Hypothesis):

Quick commerce platforms have a significant impact on the sales and customer visits of traditional kirana stores.

### **Research Methodology**

This section explains the method used to conduct the research and collect the required information for the study. The research mainly focuses on understanding how the growth of quick commerce is affecting traditional kirana stores in the Vasai–Virar region.

The study is based on descriptive research, as it aims to understand the experiences and opinions of local retailers regarding the increasing use of quick commerce platforms. The research uses both primary data and secondary data to get a better understanding of the topic.

Primary data was collected by conducting a small survey among kirana store owners in the Vasai–Virar area. A structured questionnaire was used to ask them about their awareness of quick commerce platforms, changes in customer behavior, and the impact on their sales and business.

Secondary data was collected from different sources such as online articles, industry reports, and research papers related to the growth of quick commerce. Information about companies like Blinkit, Zepto, and Swiggy Instamart was also referred to in order to understand the development of the quick commerce sector.

For this study, a sample of 15 local retailers was considered. The responses collected from the retailers were analyzed and interpreted to understand the overall impact of quick commerce on traditional retail businesses.

### **Data Analysis & Interpretation**

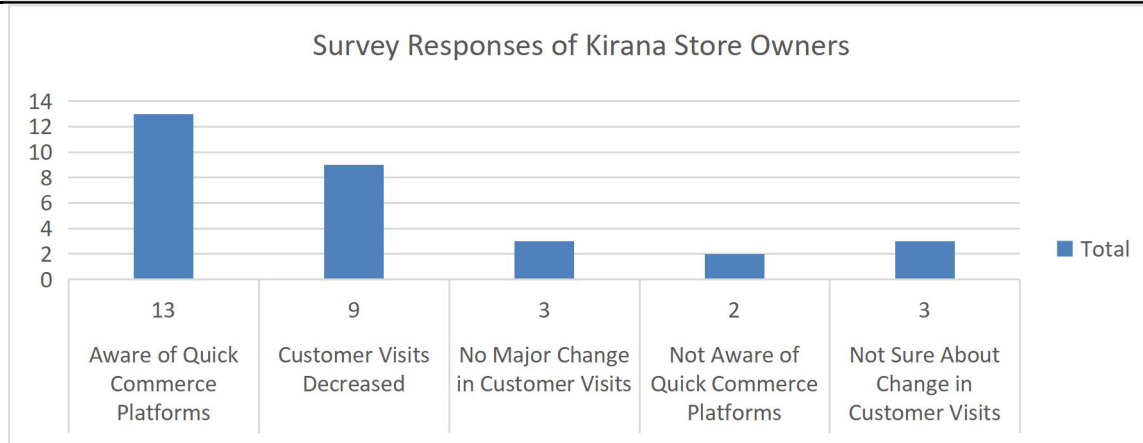
For this study, responses were collected from 15 kirana store owners in the Vasai–Virar region to understand how quick commerce is influencing their businesses. The questions focused on awareness of quick commerce platforms, changes in customer behavior, and the effect on retail sales.

Most of the retailers were aware of quick commerce platforms such as Blinkit, Zepto, and Swiggy Instamart. Out of the 15 respondents, 13 retailers said they knew about these platforms, while only 2 retailers were not very familiar with them. This shows that quick commerce services are becoming widely known even among small shop owners.

When asked about customer visits, 9 retailers said that the number of customers coming to their shops has decreased, while 3 retailers said there was no major change. Another 3 retailers were unsure about the exact reason for the change. This suggests that some customers may now prefer ordering groceries through online delivery platforms instead of visiting nearby stores.

The survey also showed that customers often compare prices between local shops and online platforms. 6 retailers said customers frequently compare prices, 7 said it happens sometimes, and 2 retailers said it rarely happens. This indicates that quick commerce platforms are influencing the way customers make purchasing decisions.

When the retailers were asked about the overall impact on their sales, 8 retailers reported a decrease in sales, while 5 retailers mentioned a slight decrease. Only 2 retailers said their sales had not changed significantly. These responses suggest that the growing popularity of quick commerce services is creating more competition for traditional retail stores.



*Survey responses of kirana store owners regarding awareness of quick commerce platforms and changes in customer visits.*

The chart shows that a majority of kirana store owners are aware of quick commerce platforms such as Blinkit, Zepto, and Swiggy Instamart. A significant number of retailers also reported a decrease in customer visits to their stores. Only a few respondents indicated no major change or uncertainty regarding customer visits. This suggests that the growing popularity of quick commerce platforms may be influencing customer shopping behaviour and affecting traditional retail stores.

### Findings of the Study

Based on the analysis of the survey responses, the following findings were observed:

1. Most local retailers are aware of quick commerce platforms and their services.
2. Many retailers have noticed a decrease in customer visits due to the convenience offered by online delivery platforms.
3. Customers are increasingly comparing prices between kirana stores and quick commerce apps.
4. Several retailers have experienced a decline or slight reduction in sales in recent years.
5. Quick commerce platforms are becoming strong competitors for traditional retail businesses.

### Conclusion

The retail sector is changing rapidly with the growth of quick commerce services. Platforms such as Blinkit, Zepto, and Swiggy Instamart have become popular among customers because they offer convenience, fast delivery, and attractive offers.

The results of this study show that quick commerce is gradually influencing traditional kirana stores in the Vasai-Virar region. Many retailers reported changes in customer behavior, including fewer store visits and increased price comparisons with online platforms.

However, traditional retailers still have certain strengths such as strong relationships with customers, trust, and easy access within local neighborhoods. With the right strategies and adaptation, kirana stores can continue to remain an important part of the retail system.

### Suggestions

Based on the findings of the study, the following suggestions can help traditional retailers adapt to the changing retail environment:

6. Kirana store owners can introduce home delivery services for nearby customers.

7. Retailers can adopt digital payment systems and simple online ordering methods.
8. Store owners can focus on personalized customer service, which is a major advantage over online platforms.
9. Retailers can improve product availability and maintain competitive pricing whenever possible.
10. Training programs and awareness initiatives can help small retailers understand new technologies and market trends.

### **Limitations of the Study**

This study focuses only on kirana store owners in the Vasai–Virar region and the sample size used for the survey is relatively small. Because of this, the results may not fully represent the situation of retailers in other cities. The study also relies on the responses of retailers, which are based on their personal experiences and opinions.

Future studies can include a larger sample size and cover more regions to understand the impact of quick commerce on traditional retail businesses in a broader way.

### **References**

(Consulting, 2023) (Deloitte, 2022) (Blinkit, n.d.) (Instamart, n.d.) (Times, 2023)

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# INNOVATION IN ACTION: STARTUPS RESHAPING THE FUTURE OF BUSINESSES

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## 1. Abstract

Startups have become an important part of the modern business environment by introducing new ideas, technologies, and business models. This study examines how startups contribute to innovation and influence the future of businesses. The research is based on a descriptive design using both primary and secondary data. Primary data was collected through a questionnaire survey of 33 respondents to understand their views on startups and innovation. The findings show that most respondents believe startups play a significant role in promoting innovation, technological development, and economic growth. The study concludes that startups are increasingly shaping the way businesses operate and compete in today's market.

**Keywords:** Startups, Innovation, Entrepreneurship, Business Growth, Technological Advancement.

## 2. Introduction

Innovation isn't just a buzzword in today's business world; it's the engine that keeps organizations moving forward and staying ahead. Technology moves fast. Digital tools change by the day. Consumers expect more, and their tastes shift just as quickly. Companies that stand still get left behind. To stay in the game, they have to rethink their strategies and adapt constantly.

Startups bring fresh ideas, new technologies, and business models that shake up the status quo. Unlike big corporations tied up in red tape, startups can pivot quickly. They experiment, they fail, they learn, and they try again—sometimes setting off changes that ripple through entire industries.

Think about what's happening in finance, e-commerce, healthcare, transportation, and tech. Startups are rewriting the rules everywhere. They use artificial intelligence, data analytics, and digital platforms to deliver smarter, faster, and more tailored solutions. But their impact isn't just technical. Startups drive economic growth, spark entrepreneurship, create jobs, and build a culture where innovation thrives.

Given how much startups are changing the business landscape, we need to take a closer look at their role. This study dives into how startups fuel innovation and what their rise means for the future of business.

## 3. Review of Literature

Several researchers have examined the connection between entrepreneurship, innovation, and business development. Earlier studies suggest that startups play an important role in introducing new technologies, ideas, and business models that influence the growth of modern industries.

**Schumpeter (1942)** introduced the concept of creative destruction, explaining that innovation and new enterprises replace outdated technologies and traditional business models, leading to economic progress.

**Christensen (1997)** discussed disruptive innovation, stating that smaller firms often begin by serving overlooked markets and eventually challenge established companies, bringing major changes to industries.

**Blank and Dorf (2012)** described startups as organizations searching for scalable business models. Their study emphasized experimentation, customer feedback, and continuous improvement as important aspects of startup growth.

**Ries (2011)** proposed the Lean Startup approach, which focuses on testing ideas quickly, launching simple product versions, and improving them based on market response.

**Nambisan (2017)** highlighted the role of digital technologies such as cloud computing and digital platforms in enabling entrepreneurs to build and scale innovative startups.

**NASSCOM (2021)** examined the growth of the Indian startup ecosystem and found that factors such as government initiatives, funding, and incubation support have encouraged innovation and employment generation.

#### 4. Objectives of the Study

- To understand the role of startups in driving innovation in modern businesses.
- To examine how startup innovations are transforming traditional industries.
- To analyse the impact of startups on the future growth and competitiveness of businesses.

#### 5. Hypothesis for the Present Study

**H<sub>0</sub> (Null Hypothesis):** Startups do not have a significant impact on innovation and transformation in modern businesses.

**H<sub>1</sub> (Alternative Hypothesis):** Startups have a significant impact on innovation and transformation in modern businesses.

#### 6. Research Methodology

Research methodology refers to the method used to collect and analyse data for the study. For the research titled “Innovation in Action: Startups Reshaping the Future of Businesses,” a structured approach was used to understand public perception of startups and their role in innovation.

**Research Design:** The study follows a descriptive research design to examine respondents’ opinions on the impact of startups on innovation and business development.

**Data Collection:** Both primary and secondary data were used.

**Primary Data:** Collected through a structured Google Forms questionnaire with multiple-choice and opinion-based questions.

**Secondary Data:** Gathered from research papers, journals, and reliable online sources related to startups and innovation.

**Sampling Method:** A convenience sampling method was used. The questionnaire was circulated online among accessible respondents.

**Sample Size:** The study targeted around 30–50 respondents from different backgrounds.

**Research Instrument:** A structured questionnaire of 10 questions was used to collect responses.

**Data Analysis Method:** Responses will be analysed using percentage analysis and graphical representation to understand trends in opinions.

#### 7. Research Findings

The primary data for the study was collected through a structured questionnaire from 33 respondents. The responses were analysed using percentage analysis to understand perceptions about the role of startups in promoting innovation and business development.

##### Age Group of Respondents

The majority of respondents belong to the 18–21 age group (72.7%), followed by 22–25 years (15.2%), while 9.1% are above 25 years and 3% are below 18. This indicates that the survey mainly reflects the views of young individuals, who are generally more exposed to startup culture and innovation.

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## Occupation of Respondents

Most respondents are students (75.8%), followed by working professionals (15.2%), while 9.1% belong to other occupations. This suggests that the responses largely represent the perspective of students and early professionals.

## Familiarity with Startups

A large majority of respondents 30 (90.9%) are familiar with the concept of startups, while only 3 respondents (9.1%) are not. This shows that awareness of startups is quite high among the participants.

## Most Innovative Sector

The technology sector received the highest response with 21 respondents (63.6%), followed by fintech (18.2%), while e-commerce and health tech each received 9.1%. This indicates that technology-based startups are widely viewed as the leading source of innovation.

## Startups Introducing Innovative Products and Services

Most respondents believe startups introduce innovative products and services. 57.6% strongly agree and 18.2% agree, while 9.1% remain neutral, 6.1% disagree, and 9.1% strongly disagree. This shows that startups are generally perceived as key

contributors to innovation in the market.

## Startups Encouraging Innovation

Regarding whether startups encourage innovation, 39.4% strongly agree and 21.2% agree, while 3% remain neutral, 9.1% disagree, and 27.3% strongly disagree. Overall, the majority still believes that startups play a significant role in encouraging innovation.

## Contribution of Startups to Economic Growth

More than half of the respondents (51.5%) strongly agree that startups contribute to economic growth. Meanwhile 3% agree, 18.2% remain neutral, and 27.3% either disagree or strongly disagree. This suggests that startups are widely recognized for their economic contribution, particularly in job creation and business expansion.

## Startups Promoting Technological Advancement

The findings show that 45.5% strongly agree and 6.1% agree that startups promote technological advancement. However, 12.1% remain neutral, while 36.3% either disagree or strongly disagree. Despite some differing opinions, many respondents still associate startups with technological progress.

## Major Contribution of Startups

When asked about the most important contribution of startups, innovation received the highest response (36.4%),

followed by job creation (27.3%), technological advancement (24.2%), and better customer solutions (12.1%). This highlights that innovation is seen as the primary impact of startups.

## Support for Startups

A very large majority of respondents 29 (87.9%) believe startups should receive more support, while 4 respondents (12.1%) selected maybe, and none selected no. This reflects a strong positive attitude toward encouraging startup growth.

## Overall Findings

Overall, the survey results show that startups are widely perceived as important drivers of innovation, technological advancement, and economic growth. The majority of respondents recognize the role of startups in introducing new ideas, creating employment opportunities, and shaping the future of businesses.

## 8. Hypothesis Testing

For the purpose of the study, the hypothesis was tested using the responses collected through the questionnaire. The results obtained from the survey were analysed using descriptive analysis to understand respondents' views on the role of startups in promoting innovation and influencing the future of businesses.

**Table: Hypothesis Testing Result**

<i>Hypothesis</i>	<i>Statement</i>	<i>Basis Of Decision</i>	<i>Result</i>
<i>H<sub>0</sub> (Null Hypothesis)</i>	Startups do not have a significant impact on innovation and transformation in modern businesses.	Majority of respondents agreed that startups promote innovation, technological advancement, and economic growth.	Rejected
<i>H<sub>1</sub> (Alternative Hypothesis)</i>	Startups have a significant impact on innovation and transformation in modern businesses.	Survey responses indicate strong agreement regarding the positive impact of startups on innovation and business development.	Accepted

## Interpretation

The analysis of the survey responses shows that most respondents recognize the importance of startups in encouraging innovation and supporting business development. Innovation and job creation were also identified as major contributions of startups. Based on these findings, the results support the acceptance of the alternative hypothesis, indicating that startups play a significant role in shaping the future of businesses.

## 9. Conclusion

The study aimed to understand how startups contribute to innovation and the changing business environment. From the responses collected in the survey, it is clear that most participants are aware of startups and believe they play an important role in introducing new ideas and technologies.

The findings show that startups are commonly associated with innovation, technological development, and job creation. Many respondents also believe that startups bring fresh solutions to the market and encourage competition among businesses. This indicates that startups are increasingly becoming an important part of the modern business ecosystem.

Based on the overall analysis, the study supports the alternative hypothesis that startups have a significant impact on innovation and the future of businesses. As startup ecosystems continue to grow with support from investors, institutions, and government initiatives, their role in shaping industries is likely to become even more important in the coming years.

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## 10. References

1. Blank, S., & Dorf, B. (2012). *The startup owner's manual: The step-by-step guide for building a great company*. K&S Ranch.
2. Christensen, C. M. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Harvard Business School Press.
3. Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029–1055. <https://doi.org/10.1111/etap.12254>
4. NASSCOM. (2021). *Indian startup ecosystem report 2021*. National Association of Software and Service Companies.
5. Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Crown Business.
6. Schumpeter, J. A. (1942). *Capitalism, socialism and democracy*. Harper & Brothers.

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## NAVIGATING THE STARTUP LIFECYCLE: FROM IDEATION TO IPO

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### ABSTRACT

Startups have emerged as an important driver of innovation, economic development, and employment generation in the modern global economy. In recent years, entrepreneurial ventures have transformed industries by introducing innovative technologies, products, and services that address changing consumer needs. The journey of a startup generally begins with the identification of a problem in the market and the development of an innovative idea that can solve it. Over time, the idea progresses through several stages including validation, product development, market entry, business growth, and in some cases expansion through capital markets.

This research paper examines the lifecycle of startups and analyzes how entrepreneurial ventures evolve from the initial stage of ideation to the stage of Initial Public Offering (IPO). The study explores the major stages involved in startup development, the role of innovation in business growth, and the challenges entrepreneurs face during their journey. It also discusses the importance of financial markets in enabling startups to scale their operations and achieve long term sustainability.

The study incorporates both primary and secondary data. Primary data was collected through a survey conducted among students to understand their awareness regarding entrepreneurship and IPOs. Secondary data was obtained from academic literature, books, government reports, and credible online sources related to startup ecosystems.

The findings suggest that successful startups rely heavily on innovation, strategic planning, market research, and effective financial management. The research also highlights that while awareness about startups is increasing among students, knowledge about startup financing and the IPO process is still limited.

Keywords: Startup Lifecycle, Entrepreneurship, Innovation, IPO, Startup Ecosystem, Business Growth

### 1. INTRODUCTION

In the modern global economy, startups have become a major source of technological innovation and economic development. Unlike traditional businesses, startups focus on creating innovative solutions that can scale rapidly in the market. They usually operate in uncertain environments where creativity, experimentation, and adaptability are essential for survival.

During the past two decades, the global startup ecosystem has grown significantly because of technological advancement, digital platforms, and increased venture capital investment. Governments around the world have also recognized the importance of entrepreneurship as a tool for economic growth and employment generation.

India has experienced rapid growth in its startup ecosystem due to supportive policies and initiatives such as Startup India launched by the Government of India. This initiative promotes innovation and provides financial support and policy assistance to new entrepreneurs.

The lifecycle of a startup begins with an innovative idea. Entrepreneurs identify a problem in the market and attempt to develop a product or service that can address the needs of consumers. As the startup grows, it moves through stages such as product development, market entry, and expansion.

Many startups seek funding from angel investors, venture capitalists, or private equity investors in order to scale their operations. In some cases, successful startups eventually go public through an Initial Public Offering.

An IPO allows a company to offer its shares to the public in the stock market. This provides the startup with access to large amounts of capital and enhances the credibility and reputation of the company.

Understanding the stages of the startup lifecycle helps entrepreneurs and investors identify the key factors that contribute to the success or failure of startup ventures.

## **2. OBJECTIVES OF THE STUDY**

The primary objectives of this research are

1. To analyze the stages involved in the startup lifecycle
2. To examine the role of innovation and entrepreneurship in startup development
3. To evaluate the importance of IPOs in startup expansion
4. To understand the challenges faced by startups during their growth journey
5. To assess awareness about startups and IPOs among students

## **3. RESEARCH METHODOLOGY**

This research uses both primary and secondary sources of data.

Primary data was collected through a structured questionnaire distributed among students. The survey aimed to understand the level of awareness about startups, entrepreneurship, and IPOs.

A total of 20 students participated in the survey. The responses were analyzed using simple statistical methods such as percentages.

Secondary data was collected from books, academic journals, government publications, and reliable online sources related to entrepreneurship and startup development. These sources provided theoretical insights and background information for the research.

## **4. LITERATURE REVIEW**

Many researchers have studied the concept of startups and entrepreneurship.

According to Steve Blank, startups operate in conditions of uncertainty and must continuously test their ideas and business models before scaling their operations. Blank introduced the concept of customer development, which emphasizes understanding customer needs before building products.

Similarly, Eric Ries introduced the Lean Startup methodology. This approach focuses on innovation, rapid experimentation, and continuous feedback from customers. Entrepreneurs are encouraged to develop a minimum viable product and improve it gradually based on real market responses.

Research studies also highlight the importance of venture capital funding in the development of startups. Venture capital enables startups to invest in product development, expand their operations, and compete in the market.

In addition, academic research shows that IPOs play an important role in the growth of successful startups. Going public allows companies to raise large amounts of capital and attract institutional investors.

## **5. STAGES OF THE STARTUP LIFECYCLE**

The startup lifecycle consists of several stages that transform an idea into a sustainable business.

**Ideation Stage-** The ideation stage is the starting point of a startup. Entrepreneurs identify a problem or opportunity and develop an idea that can potentially solve the problem.

Validation Stage- In the validation stage, entrepreneurs test the feasibility of their idea by collecting feedback from potential customers and analyzing market demand.

Product Development Stage- After validation, the startup begins developing the product or service. Prototypes and early versions are created and improved based on user feedback.

Market Entry Stage- During this stage, the startup launches its product or service in the market. Marketing and promotional strategies are used to attract customers and build brand awareness.

Growth Stage- If the product gains acceptance, the startup enters the growth stage. The company expands its operations, hires employees, and seeks investment to scale its business.

IPO Stage- Some startups eventually reach the stage of Initial Public Offering. In this stage, the company offers its shares to the public through the stock market in order to raise capital.

## 6. ROLE OF IPO IN STARTUP GROWTH

An Initial Public Offering is the process through which a private company sells its shares to the public for the first time. IPOs are regulated by financial authorities such as the Securities and Exchange Board of India.

For startups, reaching the IPO stage represents a major milestone in their development.

### Benefits of IPO

Access to Capital- IPOs enable companies to raise large amounts of funds from public investors.

Increased Credibility- Publicly listed companies gain greater trust among customers and investors.

Liquidity for Investors- Early investors and founders can sell their shares and receive returns on their investment.

Brand Recognition- Listing on the stock exchange increases the visibility and reputation of the company.

However, IPOs also require strict regulatory compliance and transparency in financial reporting.

## 7. CHALLENGES FACED BY STARTUPS

Despite their potential for innovation and growth, startups face several challenges.

Financial Constraints- Many startups struggle to obtain funding during the early stages of their development.

Market Competition- Startups often compete with established companies that have more resources and experience.

Operational Risks- Rapid growth can create management and operational difficulties.

Regulatory Requirements- Startups must comply with government policies and financial regulations.

## 8. SURVEY ANALYSIS

A survey conducted among 20 students provided insights into their awareness of startups and IPOs.

Response	Percentage
Interested in Entrepreneurship	58.3%
Believe startups drive growth	75%
Aware of IPOs	80%

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## 9. DISCUSSION

The results of the study show that startups play an important role in promoting innovation and economic growth. The increasing number of startups globally reflects the growing interest in entrepreneurship.

However, the research also indicates that many students lack knowledge about startup financing and capital markets. Educational institutions can address this issue by introducing entrepreneurship programs and financial literacy courses.

## 10. CONCLUSION

Startups have become an essential part of modern economic development. Their ability to create innovative products and services contributes significantly to technological advancement and employment generation.

The startup lifecycle includes several stages starting from ideation and moving through validation, product development, market entry, and growth. Some successful startups eventually reach the stage of an Initial Public Offering, which allows them to raise funds from the public market.

The research shows that while interest in entrepreneurship is growing among students, awareness about startup financing and IPO processes remains limited. Promoting entrepreneurial education can help develop a stronger startup ecosystem in the future.

## REFERENCES

1. Blank, S. (2013). *The four steps to the epiphany*.  
<https://steveblank.com/four-steps-35/>
2. Ries, E. (2011). *The lean startup*.  
<https://theleanstartup.com/book>
3. Startup India. (2023). Government of India startup initiative.  
<https://www.startupindia.gov.in>
4. Securities and Exchange Board of India. (2023). IPO regulations and guidelines.  
<https://www.sebi.gov.in>

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## AN ANALYTICAL STUDY OF COST CONTROL AND REVENUE MANAGEMENT IN A RESTAURANT BUSINESS

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### ABSTRACT

The hospitality industry is one of the fastest growing sectors globally and plays a significant role in economic development, employment generation, and service innovation. Restaurants form an essential component of the hospitality sector and operate in an environment characterized by high competition, fluctuating consumer demand, and rising operational costs. Due to narrow profit margins, restaurant businesses must adopt efficient financial management practices to maintain sustainability and profitability. Among the most important financial management practices in restaurant operations are cost control and revenue management. These strategies help organizations monitor expenses, optimize pricing decisions, and improve operational efficiency.

Cost control refers to the systematic process of monitoring and regulating business expenses in order to prevent unnecessary spending and ensure efficient use of resources. In restaurant businesses, major cost components include raw materials, food ingredients, employee wages, utilities, rent, and other operational expenditures. Effective cost control helps restaurants maintain financial stability while maintaining service quality. On the other hand, revenue management focuses on maximizing income through pricing strategies, demand forecasting, menu engineering, and sales optimization techniques. When applied together, cost control and revenue management contribute significantly to improved financial performance.

This research paper aims to analyze the role of cost control and revenue management practices in restaurant operations through a case study of AETOS Restaurant. The study is based on practical exposure and observations obtained during an internship conducted from 10 October 2025 to 10 January 2026. The internship provided an opportunity to observe financial planning practices, daily sales monitoring systems, inventory management procedures, and budgeting mechanisms implemented within the organization. These observations helped in understanding how financial management concepts are applied in a real business environment.

The research adopts a descriptive and analytical approach. Primary insights were gathered through direct observation of operational and financial activities within the restaurant. Secondary data was collected from academic journals, textbooks on hospitality finance, research articles, and other credible sources related to restaurant management and financial planning. The study focuses on identifying key financial practices that influence operational efficiency and profitability.

The analysis of restaurant operations indicated that effective inventory monitoring and supplier management are critical factors in maintaining food cost percentages within acceptable industry standards. During the internship period, the average food cost percentage was observed to be maintained between 35 percent and 40 percent of total revenue, which aligns with industry benchmarks for restaurant operations. The management also implemented revenue optimization strategies such as monitoring daily sales patterns, identifying peak business hours, and introducing promotional offers to increase customer demand. Budgeting and expense monitoring practices further helped in controlling operational expenditures and improving financial discipline.

The findings of the study highlight that cost control and revenue management are closely interconnected components of restaurant financial management. Maintaining cost efficiency while maximizing revenue enables restaurants to achieve better financial performance and operational sustainability. The study also demonstrates that financial planning is not limited to accounting activities but plays a strategic role in overall business management.

The research emphasizes the importance of integrating financial management practices with operational decision making in restaurant businesses. Effective cost control, efficient inventory management, and well-

planned revenue strategies significantly contribute to profitability and long-term sustainability in the hospitality industry. The insights derived from this case study provide valuable understanding for hospitality managers, students of management studies, and researchers interested in financial management practices within the restaurant sector.

## 1. INTRODUCTION

The hospitality industry is one of the most dynamic and rapidly expanding sectors of the global economy. It plays an important role in economic development, employment generation, and service innovation. Restaurants form a vital component of the hospitality industry as they provide food services, dining experiences, and customer engagement within the service economy. However, restaurant businesses operate in an environment characterized by intense competition, fluctuating customer demand, rising operational costs, and changing consumer preferences. Due to these challenges, maintaining profitability and long-term sustainability requires effective financial management practices.

One of the key challenges faced by restaurant businesses is the management of operational costs while maintaining service quality and customer satisfaction. Restaurants incur various expenses including raw materials, employee wages, rent, utilities, maintenance, and other operational costs. These expenses must be carefully monitored and controlled in order to prevent financial losses. At the same time, restaurants must ensure that pricing strategies and sales management practices are designed to maximize revenue generation. Therefore, cost control and revenue management play a crucial role in the financial success of restaurant operations.

Cost control refers to the process of monitoring, evaluating, and regulating business expenses to ensure that they remain within planned limits. In the restaurant industry, cost control focuses primarily on managing food costs, labor costs, inventory levels, and operational expenses. Efficient inventory management, supplier negotiations, portion control, and waste reduction are some of the common techniques used to control costs in restaurant businesses. Effective cost control helps restaurants maintain financial stability and improve operational efficiency without compromising service quality.

Revenue management, on the other hand, focuses on maximizing the income generated from restaurant operations. It involves strategic pricing decisions, demand forecasting, menu engineering, promotional activities, and customer demand analysis. In the restaurant industry, revenue is influenced by several factors such as menu pricing, customer footfall, peak business hours, seasonal demand patterns, and marketing strategies. Revenue management allows businesses to optimize these factors in order to increase profitability and improve financial performance.

In recent years, the importance of financial management in the hospitality industry has increased significantly due to rising competition and increasing operational expenses. Restaurant managers must adopt systematic financial planning techniques that integrate cost control and revenue management practices. These financial strategies help organizations maintain efficiency in operations while achieving profitability and long-term sustainability.

This research paper focuses on analyzing cost control and revenue management practices in restaurant operations through a case study of AETOS Restaurant. The study is based on practical observations and insights obtained during an internship conducted from 10 October 2025 to 10 January 2026. The internship provided an opportunity to observe day-to-day restaurant operations, financial monitoring practices, inventory management procedures, and sales tracking mechanisms implemented within the organization.

Through this research, the study aims to understand how financial management concepts are applied in real-world restaurant operations. The analysis focuses on evaluating cost control mechanisms such as inventory monitoring, supplier management, and budgeting practices. It also examines revenue management strategies including sales monitoring, pricing adjustments, and promotional activities implemented to improve financial performance.

The research adopts a descriptive and analytical approach in order to examine financial practices within restaurant operations. By analyzing operational processes and financial management techniques, the study attempts to identify the relationship between cost efficiency and revenue optimization. The findings of the study aim to provide practical insights into how restaurant businesses can achieve financial stability through effective management practices.

The restaurant industry requires strong financial discipline in order to survive in a competitive business environment. Effective cost control and revenue management strategies help restaurants maintain operational efficiency, improve profitability, and ensure long-term sustainability. This research contributes to the understanding of financial management practices in restaurant businesses and highlights the importance of integrating financial planning with operational decision making.

## 2. LITERATURE REVIEW

The hospitality industry has received significant attention from researchers due to its complex operational structure and high-cost sensitivity. Financial management practices such as cost control and revenue management play a crucial role in determining the success of restaurant businesses. Several scholars have examined the relationship between financial planning, operational efficiency, and profitability in the hospitality sector.

Hayes and Miller (2011) explain that effective cost control is one of the most important managerial functions in restaurant operations. According to the authors, restaurants face continuous pressure to maintain quality service while controlling operational expenses. Food costs, labor costs, and overhead expenses are among the largest cost components in restaurant businesses. Efficient inventory management, supplier negotiations, portion control, and waste reduction are essential strategies that help restaurants control these costs. The study emphasizes that maintaining food cost percentages within industry standards is necessary for improving profit margins.

Revenue management is another important concept that has gained increasing importance in hospitality management research. Kimes (2004) highlights that revenue management strategies, originally developed in the airline industry, have been widely adopted in the restaurant sector. The author explains that restaurants can increase profitability by applying techniques such as demand forecasting, menu pricing optimization, table management, and sales pattern analysis. Revenue management allows restaurant managers to maximize revenue from available seating capacity and customer demand fluctuations.

Davis, Lockwood, Alcott, and Pantelidis (2018) emphasize the importance of integrating financial planning with operational management in hospitality businesses. According to their research, restaurant managers must continuously monitor financial performance through budgeting, cost analysis, and variance analysis. These financial tools enable managers to compare projected expenses with actual expenditures and identify areas where corrective actions are required. Effective financial planning helps organizations maintain operational efficiency while achieving long-term sustainability.

Jones and Lockwood (2004) also discuss the significance of strategic financial management in hospitality businesses. Their research suggests that restaurants must maintain a balance between cost efficiency and service quality. Excessive cost cutting may negatively affect customer satisfaction, while uncontrolled expenses may reduce profitability. Therefore, restaurant managers must implement financial strategies that ensure both operational efficiency and high service standards.

Further research by Walker (2017) highlights the importance of inventory management and menu engineering in restaurant financial planning. Inventory management helps restaurants control raw material costs and reduce food wastage, while menu engineering allows businesses to analyze the profitability of different menu items. By identifying high-profit and high-demand menu items, restaurants can design pricing strategies that increase overall revenue.

Although existing literature provides extensive insights into hospitality financial management, many studies focus primarily on large hotel chains or multinational hospitality companies. There is relatively limited research that examines financial management practices in individual or medium-scale restaurant businesses. This research attempts to address that gap by analyzing cost control and revenue management practices within AETOS Restaurant through a case study approach.

The literature reviewed in this section highlights that cost control and revenue management are closely interconnected strategies that influence the financial performance of restaurant businesses. Effective financial management requires careful monitoring of operational expenses while implementing revenue optimization techniques. By integrating these financial practices with operational decision making, restaurant businesses can achieve improved profitability and long-term sustainability.

### 3. RESEARCH OBJECTIVES AND RESEARCH QUESTIONS

The primary objective of this research is to examine the role of cost control and revenue management practices in improving financial efficiency within restaurant operations. The study focuses on analyzing how financial management strategies are implemented in real business environments and how they influence operational performance and profitability. By studying the financial practices adopted at AETOS Restaurant, the research aims to understand the practical application of financial management principles in the hospitality industry.

The study specifically seeks to evaluate the effectiveness of cost control mechanisms such as inventory management, supplier coordination, budgeting practices, and expense monitoring systems. In addition, the research also examines revenue management strategies including sales monitoring, pricing adjustments, promotional activities, and demand analysis used to improve revenue generation in restaurant operations.

The key objectives of the study are as follows:

1. To analyze the cost control mechanisms implemented in AETOS Restaurant.
2. To examine revenue management practices adopted in restaurant operations.
3. To evaluate the relationship between expense monitoring and profitability in restaurant businesses.
4. To understand how financial management concepts are applied in practical hospitality operations.

Based on these objectives, the research attempts to answer the following research questions:

1. How do cost control practices influence financial efficiency in restaurant operations?
2. What revenue management strategies are commonly used in restaurant businesses?
3. How can financial monitoring improve profitability and operational sustainability in the hospitality industry?

### 4. RESEARCH METHODOLOGY

The present research study adopts a descriptive and analytical research design in order to examine cost control and revenue management practices within restaurant operations. The study focuses on understanding how financial management concepts are implemented in a real business environment and how these practices influence operational efficiency and profitability in the hospitality industry.

The research is based on a case study approach focusing on AETOS Restaurant. The case study method allows the researcher to analyze operational and financial practices within a specific organization in detail. This method is particularly useful in hospitality research as it provides practical insights into how management strategies are applied in day-to-day operations.

The data used in this research consists of both primary and secondary sources.

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#### - Primary Data

Primary data was collected through direct observation and practical exposure during an internship conducted at AETOS Restaurant from 10 October 2025 to 10 January 2026. During this period, the researcher observed various operational and financial management activities carried out within the organization.

The internship provided an opportunity to understand several aspects of restaurant management, including daily sales monitoring, inventory management, expense tracking, supplier coordination, and budgeting practices. Observations related to cost control mechanisms and revenue management strategies were recorded and analyzed to understand their impact on restaurant operations.

#### - Secondary Data

Secondary data was collected from academic journals, textbooks related to hospitality management, research articles, and credible online sources. These sources provided theoretical knowledge about cost control, revenue management, and financial management practices within the hospitality industry.

The literature reviewed from these sources helped in understanding industry standards and financial management frameworks commonly adopted in restaurant businesses. Secondary data also helped support the analysis and interpretation of the observations made during the internship.

#### - Data Analysis Approach

The data collected through observation and literature review was analyzed using a qualitative analytical approach. The research focuses on identifying patterns and relationships between cost control practices, revenue management strategies, and overall financial efficiency within restaurant operations.

The study evaluates key operational factors such as food cost percentages, sales monitoring systems, pricing strategies, and budgeting practices. By analyzing these factors, the research attempts to understand how effective financial management contributes to improved operational performance.

#### - Limitations of the Study

While the research provides valuable insights into restaurant financial management, certain limitations exist. The study is based on observations within a single restaurant, which may limit the generalization of findings to the entire hospitality industry. Additionally, confidential financial data of the organization could not be disclosed, and therefore the analysis is based on observed operational practices rather than detailed financial records.

Despite these limitations, the study provides meaningful insights into practical financial management practices in restaurant operations.

### **5. DATA ANALYSIS AND INTERPRETATION**

The data analysis for this research is primarily based on observations made during the internship period at AETOS Restaurant and supported by theoretical concepts discussed in hospitality finance literature. The purpose of this analysis is to understand how cost control and revenue management practices influence operational efficiency and financial performance within restaurant operations. The analysis focuses on three major aspects of restaurant financial management: cost structure, revenue generation strategies, and budgeting practices.

#### - Cost Structure Analysis

Restaurant businesses operate with a complex cost structure that includes both fixed and variable costs. Fixed costs include expenses such as rent, salaries of permanent employees, utilities, and maintenance expenses. These costs remain relatively constant regardless of the number of customers served. Variable costs, on the

other hand, fluctuate depending on the level of restaurant activity and include food ingredients, raw materials, packaging materials, and other operational supplies.

During the internship period at AETOS Restaurant, it was seen that food cost represented one of the largest components of operational expenditure. The cost distribution of restaurant operations is presented in Table 1, which shows that food ingredients form the largest share of operational expenses.

Expense Category	Share (%)
Food Ingredients	38%
Labor Costs	25%
Utilities	12%
Rent	15%
Other Expenses	10%

Effective food cost management is critical for maintaining profitability in restaurant operations. The management team at AETOS Restaurant implemented several cost control techniques such as supplier negotiation, inventory monitoring, portion control, and wastage reduction. These practices ensured that raw material usage was optimized and unnecessary losses were minimized.

Based on operational observations, the restaurant maintained an average food cost percentage ranging between 35 percent and 40 percent of total revenue. In the hospitality industry, maintaining food cost within this range is generally considered acceptable and reflects efficient inventory and cost management practices. Regular stock checks were conducted to ensure that perishable ingredients were utilized before expiration, thereby reducing wastage and unnecessary expenditure.

Inventory management also played a significant role in cost control. Inventory levels were monitored regularly, and purchase orders were placed based on demand forecasts and daily sales patterns. This practice helped prevent overstocking while ensuring that essential ingredients were always available for restaurant operations.

#### - Revenue Management Practices

Revenue generation is another critical component of restaurant financial performance. Restaurants must adopt strategies that maximize revenue while maintaining customer satisfaction. During the internship period, it was observed that AETOS Restaurant implemented several revenue management strategies to optimize income generation.

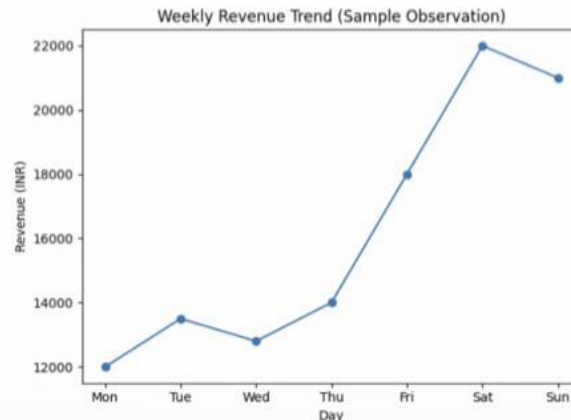
One of the primary revenue management tools used by the restaurant was daily sales monitoring. Management maintained detailed sales reports that tracked the number of customers served, total revenue generated, and the popularity of different menu items. These reports allowed managers to analyze sales trends and identify peak hours of operation.

Peak business hours were typically observed during lunch and dinner periods, particularly during weekends. Understanding these demand patterns helped management plan staffing schedules and kitchen operations more effectively. By aligning staff availability with customer demand, the restaurant was able to improve service efficiency while controlling labor costs.

Another important strategy used to improve revenue generation was menu engineering. Menu engineering involves analyzing the profitability and popularity of menu items. Items that generated higher profit margins and customer demand were promoted more actively through menu design and marketing strategies. Conversely, menu items with lower demand were either modified or replaced with more profitable alternatives.

Promotional offers were also used as part of the restaurant's revenue management strategy. Limited-time offers, combo meals, and seasonal promotions were introduced to attract more customers and increase sales volume. These promotional campaigns helped improve customer engagement while simultaneously boosting revenue generation.

The weekly revenue pattern observed during the internship period is illustrated in Figure 1, which highlights the variation in daily sales and the higher revenue generated during weekend periods compared to weekdays.



#### - Budgeting and Financial Monitoring

Budgeting practices also played a prominent role in maintaining financial discipline within the organisation. AETOS Restaurant prepared monthly expense budgets that outlined expected operational expenditures such as raw material costs, labor expenses, utilities, and maintenance costs. These budgets served as financial planning tools that guided operational decision-making.

Actual expenses were regularly compared with projected budgets through a process known as variance analysis. Variance analysis allowed management to identify differences between planned and actual expenses. When deviations occurred, management investigated the reasons behind the variations and implemented corrective measures.

For example, if food costs exceeded the projected budget for a particular month, the management team reviewed inventory usage and supplier pricing in order to identify potential cost inefficiencies. This process helped ensure that operational costs remained under control and financial targets were achieved.

#### - Operational Coordination and Financial Efficiency

The analysis also highlighted the importance of coordination between different departments within the restaurant. Effective communication between kitchen staff, procurement teams, and management ensured that operational resources were used efficiently. Kitchen staff were trained to follow portion control guidelines and minimize wastage during food preparation.

Procurement teams worked closely with suppliers to obtain raw materials at competitive prices while maintaining quality standards. These collaborative efforts contributed significantly to improving financial efficiency within the restaurant.

Overall, the analysis demonstrates that cost control and revenue management practices implemented at AETOS Restaurant play a crucial role in maintaining financial stability and operational efficiency. By carefully monitoring operational expenses and implementing effective revenue strategies, the restaurant is able to sustain profitability in a highly competitive hospitality market.

The relationship between food cost percentage and estimated profit margins in restaurant operations is illustrated in Table 2.

Food Cost %	Profit Margin %
30%	25%
35%	22%
40%	18%
45%	14%
50%	10%

## 6. FINDINGS

Based on the analysis of financial management practices observed during the internship period at AETOS Restaurant, several key findings were identified regarding the role of cost control and revenue management in restaurant operations. These findings highlight the importance of structured financial planning and operational coordination in maintaining profitability within the hospitality industry.

One of the most significant findings of the study is that cost control plays a crucial role in maintaining financial stability in restaurant businesses. The observation of food cost percentages ranging between 35 percent and 40 percent indicates that effective inventory management and supplier coordination contribute significantly to maintaining operational efficiency. Restaurants that regularly monitor inventory levels and control wastage are more likely to maintain stable profit margins.

Another important finding of the research is the impact of daily sales monitoring on revenue management. By analyzing daily sales reports, management is able to identify peak business hours and high-demand menu items. This information allows restaurant managers to adjust operational strategies such as staffing levels, promotional offers, and menu pricing. As a result, the restaurant can optimize revenue generation while maintaining efficient service delivery.

The research also highlights the importance of menu engineering as a revenue optimization tool. The analysis of menu item performance helps restaurants identify products that generate higher profits and customer demand. By promoting profitable menu items and adjusting the pricing structure, restaurants can improve overall financial performance.

Another key finding relates to the role of budgeting and variance analysis in financial monitoring. The budgeting process allows restaurant management to establish expected expense levels and compare them with actual expenditures. Variance analysis helps identify deviations from financial targets and enables management to take corrective actions when necessary.

Furthermore, the study indicates that coordination between operational departments significantly improves financial efficiency. Effective communication between kitchen staff, procurement teams, and management ensures proper inventory usage, reduces wastage, and improves cost control. This coordination supports the implementation of financial strategies across different areas of restaurant operations.

Overall, the findings suggest that successful restaurant management requires a balanced integration of cost control mechanisms and revenue management strategies. Restaurants that adopt systematic financial monitoring practices are better positioned to achieve operational efficiency and long-term sustainability.

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## 7. CONCLUSION

The hospitality industry operates in a highly competitive business environment where effective financial management is essential for long-term success. Restaurant businesses, in particular, face significant challenges related to rising operational costs, fluctuating customer demand, and intense market competition. In such conditions, the implementation of cost control and revenue management practices becomes critical for maintaining profitability and operational efficiency.

This research study examined the financial management practices implemented at AETOS Restaurant with a focus on cost control mechanisms and revenue management strategies. The study was based on observations made during an internship conducted between 10 October 2025 and 10 January 2026, which provided valuable insights into real-world restaurant operations.

The research findings indicate that effective cost control practices such as inventory monitoring, supplier management, portion control, and wastage reduction play a significant role in maintaining financial stability in restaurant businesses. Maintaining food cost percentages within acceptable industry standards ensures that restaurants can control operational expenses while maintaining service quality.

Revenue management strategies also contribute significantly to improving financial performance. Practices such as daily sales monitoring, menu engineering, demand analysis, and promotional activities help restaurants maximize revenue generation. By understanding customer demand patterns and optimizing menu offerings, restaurant managers can enhance profitability and customer satisfaction.

Another important conclusion of the study is that financial planning must be integrated with operational decision making. Budgeting and variance analysis allow management to monitor financial performance and identify areas where cost efficiency can be improved. These financial monitoring practices help restaurants maintain discipline in operational spending and achieve financial goals.

The study also highlights the importance of coordination between different operational departments within the restaurant. Collaboration between kitchen staff, procurement teams, and management ensures that financial strategies are effectively implemented in day-to-day operations.

In conclusion, cost control and revenue management are essential components of successful restaurant management. Restaurants that adopt structured financial planning and continuous performance monitoring are better equipped to maintain profitability and sustainability in the competitive hospitality industry. The insights derived from this research contribute to a better understanding of financial management practices in restaurant businesses and provide useful guidance for hospitality managers and management students.

## REFERENCES

1. Baker, M., Huyton, J., & Bradley, P. (2001). *Principles of hotel front office operations* (2nd ed.). Continuum.
2. Barrows, C. W., Powers, T., & Reynolds, D. (2012). *Introduction to management in the hospitality industry* (10th ed.). Wiley.
3. Heizer, J., Render, B., & Munson, C. (2017). *Operations management: Sustainability and supply chain management* (12th ed.). Pearson Education.
4. Kotler, P., Bowen, J. T., & Makens, J. C. (2017). *Marketing for hospitality and tourism* (7th ed.). Pearson.
5. Ninemeier, J. D., & Hayes, D. K. (2006). *Restaurant operations management: Principles and practices*. Pearson Prentice Hall.
6. Pavesic, D. V. (2010). *Restaurant management: Customers, operations, and employees*. Pearson.
7. Schmidgall, R. S. (2011). *Hospitality industry managerial accounting* (7th ed.). Educational Institute of the American Hotel & Lodging Association.
8. Upneja, A., Shafer, E., Seo, W., & Yoon, J. (2010). Revenue management practices in the restaurant industry. *Journal of Hospitality Financial Management*, 18(1), 1–14.

# SUSTAINABLE STARTUPS: THE ROLE OF ETHICAL AND PURPOSE-DRIVEN MARKETING

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## ABSTRACT

Sustainable startups are redefining business success by integrating environmental stewardship, social responsibility, and ethical governance into their core strategies. Ethical and purpose-driven marketing plays a vital role in communicating these commitments and shaping stakeholder perceptions. This research paper examines how sustainable startups utilize transparent communication, green branding, responsible digital marketing, and social impact initiatives to achieve long-term growth. The study evaluates the influence of ethical marketing on consumer trust, brand loyalty, and financial performance while also identifying potential risks such as greenwashing and consumer skepticism. The findings suggest that ethical marketing is both a moral responsibility and a strategic competitive advantage in the modern entrepreneurial ecosystem.<sup>1</sup>

## INTRODUCTION

The increasing global focus on sustainability has transformed consumer expectations and business operations. Environmental degradation, climate change, and social inequality have intensified demand for responsible corporate behavior. Modern consumers seek brands that demonstrate accountability and align with their personal values.

Startups possess the flexibility to embed sustainability into their foundational strategies. However, merely adopting sustainable practices is insufficient; effective communication is essential. Ethical and purpose-driven marketing ensures that sustainability initiatives are conveyed authentically, transparently, and responsibly. This study explores the strategic significance of ethical marketing in enabling sustainable startups to achieve competitive differentiation and stakeholder trust.<sup>2</sup>

## LITERATURE REVIEW

Kotler, Kartajaya, and Setiawan (2017) introduced the concept of Marketing 3.0, emphasizing human-centric and values-driven approaches. Crane and Matten (2016) highlight that ethical marketing strengthens legitimacy and fosters long-term stakeholder relationships. Research indicates that consumers are increasingly willing to support brands demonstrating social and environmental responsibility.

Green marketing has emerged as a strategic tool for promoting eco-friendly products and processes. However, literature warns against greenwashing misleading claims about environmental benefits which can damage brand credibility. Studies also show that corporate social responsibility initiatives positively influence brand equity when supported by transparency and accountability.<sup>3</sup>

## OBJECTIVES OF THE STUDY

1. To examine the concept of ethical and purpose-driven marketing in sustainable startups.
2. To analyze marketing strategies that promote sustainability and social impact.
3. To evaluate the effect of ethical marketing on consumer behavior and brand performance.

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<sup>1</sup>BRIEF SUMMARY.

<sup>2</sup> THE OPENING SECTION REPRESENTING THE TOPIC AND PURPOSE.

<sup>3</sup> EVALUATION OF EXISTING RESEARCH.

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4. To identify challenges and risks associated with purpose-driven marketing.<sup>4</sup>

## RESEARCH METHODOLOGY

This research is based on secondary data collected from academic literature, sustainability reports, policy documents, and credible online sources. Qualitative analysis has been employed to interpret theoretical concepts and practical implications.<sup>5</sup>

## ETHICAL AND PURPOSE-DRIVEN MARKETING STRATEGIES

### Transparency and Disclosure

Transparency is fundamental to ethical marketing. Sustainable startups publish sustainability reports, disclose sourcing practices, and communicate measurable environmental goals. Transparent communication reduces skepticism and strengthens credibility.

### Green Branding and Eco-Labeling

Green branding highlights environmentally friendly attributes such as recyclable packaging, renewable energy usage, and reduced carbon emissions. Certifications and eco-labels enhance authenticity and provide third-party validation.

### Cause-Related Marketing

Purpose-driven startups align with social causes including education, healthcare, and community development. Cause-related campaigns enhance emotional connection and brand differentiation. Partnerships with non-profit organizations increase legitimacy.

### Responsible Digital Marketing

Digital platforms amplify brand communication. Ethical startups prioritize data privacy compliance and avoid manipulative advertising. Transparent influencer partnerships and honest promotional disclosures reinforce trust.<sup>6</sup>

## IMPACT ON CONSUMER BEHAVIOR AND BRAND PERFORMANCE

Ethical marketing significantly influences purchase decisions. Consumers are more inclined to support brands perceived as socially responsible. Trust enhances customer loyalty and positive word-of-mouth communication.

Sustainable positioning also attracts impact investors who prioritize environmental, social, and governance (ESG) criteria. Employee satisfaction improves when organizational values align with social impact objectives. Long-term profitability benefits from strong stakeholder relationships and enhanced brand equity.

Furthermore, responsible marketing reduces regulatory risks and reputational crises. Transparency and accountability contribute to organizational resilience. Thus, purpose-driven marketing supports both financial

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<sup>4</sup> THE SPECIFIC GOALS THIS STUDY AIMS TO ACHIEVE.

<sup>5</sup> THE SYSTEMATIC METHODS USED TO CONDUCT THE RESEARCH.

<sup>6</sup> THE METHODS USED TO PROMOTE PRODUCTS OR SERVICES EFFECTIVELY.

growth and social impact.<sup>7</sup>

## CHALLENGES AND RISKS

Implementing sustainability initiatives may increase operational costs, posing challenges for resource-constrained startups. Measuring the direct financial return on ethical marketing investments can be complex.

Greenwashing remains a critical risk. Exaggerated environmental claims can result in consumer backlash and regulatory scrutiny. Consumer skepticism toward corporate motives also presents challenges. Continuous transparency and third-party certifications can mitigate these risks.<sup>8</sup>

## CONCLUSION

Sustainable startups are shaping the future of business by aligning profitability with social and environmental responsibility. Ethical and purpose-driven marketing plays a crucial role in communicating sustainability commitments and building stakeholder trust. Transparent communication, green branding, responsible digital practices, and stakeholder engagement collectively contribute to long-term competitiveness.

The research concludes that ethical marketing is not merely a moral obligation but a strategic asset.<sup>9</sup>

## REFERENCES

1. Crane, A., & Matten, D. (2016). *Business ethics: Managing corporate citizenship and sustainability in the age of globalization*. Oxford University Press.
2. Kotler, P., Kartajaya, H., & Setiawan, I. (2017). *Marketing 3.0: From products to customers to the human spirit*. Wiley.
3. United Nations. (2023). Sustainable development goals. Retrieved from <https://sdgs.un.org/goals>
4. OECD. (2022). Responsible business conduct. Retrieved from <https://www.oecd.org/corporate/mne/>
5. Nielsen. (2015). The sustainability imperative. Retrieved from <https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/global-sustainability-report-oct-2015.pdf>

<sup>7</sup> THE RESULT OF MARKETING STRATEGIES ON CONSUMER BEHAVIOUR AND BRAND PERFORMANCE.

<sup>8</sup> OBSTACLES OR DIFFICULTIES FACED.

<sup>9</sup> FINDINGS AND OVERALL OUTCOME OF THE STUDY.

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# FUNDING THE FUTURE: INSIGHTS FROM INVESTORS AND VENTURE CAPITALISTS

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## Abstract

The startup ecosystem has become an essential driver of innovation, technological advancement, and economic development across the world. Venture capitalists and investors play a critical role in supporting entrepreneurial ventures by providing financial resources, strategic guidance, and industry expertise. However, investment decisions in early-stage startups involve significant uncertainty due to limited financial data, unproven business models, and rapidly changing market conditions.

This research paper examines the perspectives and decision-making processes of investors and venture capitalists when funding innovative startups. The study analyzes the key factors considered by investors while evaluating potential investment opportunities, including market potential, founder capability, scalability of the business model, and competitive advantage. The research also explores different stages of venture capital funding and highlights how investor expectations evolve as startups grow.

The findings suggest that investors focus not only on financial projections but also on qualitative aspects such as leadership capability, innovation potential, and long-term market opportunity. The paper concludes that venture capital funding plays a significant role in shaping the future of emerging industries by enabling startups to develop innovative solutions and scale their operations globally.

## 1. Introduction

In recent years, the global economy has witnessed rapid growth in the startup ecosystem. Startups have emerged as powerful engines of innovation, creating new products, services, and technologies that transform industries and improve living standards. However, most startups face significant challenges in securing financial resources during their early stages of development.

Traditional sources of financing such as bank loans are often not accessible to startups due to their lack of collateral, limited operating history, and uncertain revenue streams. As a result, entrepreneurs frequently rely on venture capital funding and private investors to support their business growth.

Venture capital refers to a form of private equity financing provided to startups and early-stage companies with high growth potential. Venture capitalists invest capital in exchange for equity ownership and often provide mentorship, strategic advice, and industry connections to help startups succeed.

The role of investors extends beyond financial support. Venture capitalists actively participate in business decision-making, guide startups in scaling their operations, and help them navigate competitive markets. Their investment decisions significantly influence which innovations receive funding and which industries experience rapid growth.

Understanding how investors evaluate startup opportunities is essential for entrepreneurs seeking funding and for policymakers aiming to strengthen the entrepreneurial ecosystem. This study explores the insights and perspectives of investors and venture capitalists regarding startup funding and innovation-driven growth.

## 2. Literature Review

The role of venture capital in supporting innovation has been widely discussed in academic literature. Gompers and Lerner (2001) describe venture capital as a crucial mechanism for financing high-risk entrepreneurial ventures that traditional financial institutions are unwilling to support. Their research highlights that venture capitalists provide both financial resources and managerial expertise to startups.

Kaplan and Strömberg (2004) examined the decision-making processes of venture capitalists and found that investors evaluate multiple factors when considering investment opportunities. These include the quality of the management team, market size, competitive advantage, and potential for future growth.

Damodaran (2012) emphasizes the challenges associated with valuing startups. Since early-stage ventures often lack historical financial data, investors must rely on projected growth and qualitative judgments to determine company value.

Other studies highlight the importance of innovation and technological capability in attracting venture capital investment. Startups that develop disruptive technologies or scalable business models tend to attract higher levels of investor interest.

The literature suggests that venture capital plays a critical role in shaping modern innovation ecosystems by providing financial support to high-risk but high-potential ventures.

### 3. Objectives of the Study

The primary objectives of this research are:

1. To understand the role of investors and venture capitalists in funding startups.
2. To identify key factors that influence venture capital investment decisions.
3. To analyze different stages of venture capital funding.
4. To examine how investor expectations evolve as startups grow.
5. To highlight the importance of venture capital in supporting innovation and economic development.

### 4. Research Methodology

This research is based on **secondary data analysis**. Information for the study was collected from academic journals, financial research papers, books related to entrepreneurial finance, and reports on venture capital investment trends.

The study uses a **descriptive research approach** to analyze how investors evaluate startup opportunities and how venture capital financing supports innovation.

Several real-world examples of successful startups have also been examined to understand how venture capital funding contributes to business growth and market expansion.

### 5. Venture Capital Funding Stages

Startup funding typically occurs in multiple stages as companies progress from idea development to large-scale operations.

#### Seed Funding

Seed funding is the earliest stage of investment. At this stage, investors provide capital to help entrepreneurs develop a prototype, conduct market research, or launch an initial product.

#### Early-Stage Funding

Early-stage funding includes Series A and Series B investments. These funds are used to expand operations, improve products, and acquire customers.

#### Growth-Stage Funding

Growth-stage funding helps startups scale their operations, enter new markets, and strengthen their competitive position.

## Exit Stage

Investors typically exit their investment through methods such as Initial Public Offerings (IPOs) or acquisitions by larger companies.

## 6. Key Factors Influencing Investment Decisions

Venture capitalists evaluate several factors before investing in a startup.

### 1. Founder and Management Team

Investors place significant importance on the capabilities and experience of the founding team. Strong leadership increases investor confidence in the startup's ability to succeed.

### 2. Market Opportunity

A large and growing market is essential for attracting venture capital investment. Investors prefer startups operating in industries with significant future demand.

### 3. Innovation and Technology

Startups that offer unique technological solutions or innovative business models have higher chances of attracting funding.

### 4. Scalability

Investors prefer businesses that can scale rapidly without proportional increases in costs.

### 5. Competitive Advantage

Startups must demonstrate how their product or service is different from existing alternatives in the market.

### 7. Role of Venture Capital in Startup Growth

Venture capital funding provides several advantages to startups beyond financial support.

First, venture capitalists offer strategic guidance and mentorship to entrepreneurs. Their experience helps startups make better business decisions and avoid common mistakes.

Second, venture capital firms provide access to professional networks that include industry experts, partners, and potential customers.

Third, venture capital investment increases the credibility of startups, making it easier for them to attract additional investors and customers.

As a result, venture capital funding significantly accelerates the growth and development of innovative companies.

## 8. Findings and Discussion

The analysis indicates that venture capitalists adopt a comprehensive approach when evaluating startup investment opportunities. Financial projections alone are not sufficient for making investment decisions. Instead, investors rely on a combination of financial analysis, market evaluation, and qualitative judgment.

The study also shows that investor confidence is strongly influenced by the leadership capabilities of founders and the scalability of the business model. Startups that demonstrate strong growth potential and innovative solutions are more likely to secure venture capital funding.

Furthermore, venture capital investment plays a critical role in promoting innovation by enabling startups to develop new technologies and enter global markets.

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## 9. Conclusion

The growth of the startup ecosystem has transformed the modern business landscape, and venture capital funding has become a key driver of innovation and entrepreneurship. Investors and venture capitalists provide essential financial resources, strategic guidance, and industry expertise that help startups overcome early-stage challenges and scale their operations.

This research highlights that successful investment decisions depend on a combination of financial evaluation and qualitative assessment of factors such as founder capability, innovation potential, and market opportunity. Venture capitalists play a significant role in shaping the future by identifying and supporting startups that have the potential to transform industries.

As the global startup ecosystem continues to expand, the role of venture capital in funding innovation and driving economic growth will become even more important.

## References

1. Damodaran, A. (2012). *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*. Wiley.
2. Gompers, P., & Lerner, J. (2001). The Venture Capital Revolution. *Journal of Economic Perspectives*.
3. Kaplan, S. N., & Strömberg, P. (2004). Characteristics, Contracts, and Actions: Evidence from Venture Capitalist Analyses. *Journal of Finance*.
4. Various research articles on venture capital and startup financing.

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# THE ROLE OF POLICY AND GOVERNMENT IN STARTUP GROWTH

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## ABSTRACT

The startup ecosystem in India has experienced a transformative growth path, with the Government of India initiating the Startup India program on January 16, 2016, putting India in the third-largest start up hub in the world, with more than 2.07 lakh DPIIT-registered startups by December 2025. The quantifiable impact of government policy interventions (that is, Fund of Funds for Startups (FFS), Startup India Seed Fund Scheme (SISFS), and Credit Guarantee Scheme for Startups (CGSS) on the startup growth measures (including registration, funding disbursement, job creation, unicorn creation and geographic distribution) in 2016-2025 is an empirical study. The main hypotheses are to determine what is the direct effect of government funding systems on startup development and to reveal the differences in policy implementation by states. Descriptive statistics and trend analysis are used to analyze secondary data in the form of DPIIT, PIB, CII-McKinsey and KPMG India reports. The hypothesis of the study is that government intervention policy is positively and significantly related to measurable start up growth results in India. Findings affirm that there is a high degree of positive correlation with regional concentration prevailing in Karnataka, Maharashtra and Delhi. The report concludes that central schemes have played a conclusive role in accelerating the growth of startups, but there are structurally implemented gap in Tier II/III states and this needs policy realignment.

**Keywords:** Startup policy, DPIIT recognition, entrepreneurial ecosystem, Fund of Funds, government intervention

## 1. INTRODUCTION

The rise of India to become a startup powerhouse in the global market is not an organic phenomenon in the market, but a result of the planned, sustained and multi-layered government policy interventions in the last decade. The official history of the policy architecture of the startup policy in India dates to January 16, 2016, when the Startup India initiative was introduced and managed by the Department for Promotion of Industry and Internal Trade (DPIIT). As of today, the ecosystem has grown to a number of over 2.07 lakh DPIIT-registered startups and created over 21.9 lakh direct jobs, as well as having raised 112 unicorns (PIB, 2024; Wikipedia, 2025). The phenomenal growth poses a critical empirical issue: to what empirical scale does the instrument of government policy predetermine the results of startup growth? Government policy in startup ecosystems acts on a variety of metrics financial facilitation, regulatory simplification, market access, and infrastructural support (Audretsch & Belitski, 2017; Stam, 2015). Three flagship funding instruments the FFS, SISFS and CGSS--totaling up to 26,000 crore in the startup ecosystem by 2016 and in October 2025--were all channeled into the startup environment. At the same time, 53 regulatory reforms since 2016 were aimed to abate compliance burden such as self-certification under nine labour laws and three environmental laws, and an 80 percent rebate on patent filing fees (Invest India, 2024). These measures can be linked to the argument of Mazzucato (2013), who states that the entrepreneurial state should carry out a risk-absorbing, innovation-catalyzing role that cannot be maintained by the private market.

The development of India has been uneven in geographical distribution as well as pace. Although more than 52 percent of the total startups registered in Maharashtra, Karnataka, Delhi, and Uttar Pradesh are in these four states, the benefits of the policy are at the margins in other states like Sikkim (18 startups), Mizoram (61), and Ladakh (23) (PIB, 2024). According to Kannan and Nandakumar (2022) and KPMG (2024), this asymmetry has to be addressed within the implementation gaps that require systematic analysis. Financial scheme effects Incubation infrastructure Atal Incubation Centres (AICs), the MeitY Startup Hub, and the MAARG mentorship platform have increased impacts by providing non-financial ecosystem support (DPIIT, 2024). In H1 2024, Indian tech startups have already raised USD 4.1 billion and the ecosystem is estimated to contribute

USD 1 trillion to the Indian economy by FY 2030 (CII and McKinsey, 2024). With these interests, it is high time that empirical research on policy-growth connections is conducted. This paper offers confirmed quantitative data on this question with reference to the government and industry data between 2016 and 2025.

## 2. LITERATURE REVIEW

The conceptual basis of the role of government in startup ecosystem is based on the concept of entrepreneurial ecosystem as expressed by Isenberg (2010) who proposed that successful startup cultures are based on policy, finance, culture and human capital domains that are interlinked. Stam (2015) expanded this framework and argued that systems should be constructed with regional policies to build a systemic startup infrastructure, lamenting market-based solutions. On the funding aspect, Audretsch and Belitski (2017) proved empirically that institutional density and government-policy compatibility in urban ecosystems have a big effect on the output of startups in the initial stage, especially in markets where there are extreme information asymmetries. On the financing aspect, Hochberg (2016) found out that government-helped seed programs have a significant implication on the survival of the startups in their initial stages, especially where the information asymmetry is severe in the market. Klapper, Laeven, and Rajan (2006) demonstrated that barriers to regulatory entry had a negative effect on the entrepreneurial activity a result that was supported by the 2016 surge of startups in India following systematic de-regulatory reforms. Djankov, La Porta and Lopez-de-Silanes and Shleifer (2002) also reported that the rate of new firm's creation is significantly higher in such countries where the entry control is simplified, which is the case with India. Cockayne (2019) had warned about the risk of definitional vagueness in startup research, writing that only policy frameworks that have precise definitional criteria (like the turnover-and-age-based recognition criteria of DPIIT) produce dependable ecosystem data.

The synthesis of the entrepreneurial ecosystem research in developed and developing economies by Cao and Shi (2021) established that the strength of the ecosystem was directly linked to the institutional quality of the government, the depth of financial ecosystems, and the level of regulatory openness. The results presented by them apply very well to that of the tiered state-level inequalities in India, with mature industrial-policy states (Maharashtra, Karnataka) demonstrating tremendous performances over weaker governance environments. Stam and van de Ven (2021) built on this by finding that systemic institutional factors and individual entrepreneurial characteristics were disproportionately important drivers of the rate of startup output conditions registration, growth velocity, employment, and found that systemic sector and geographic concentration persisted. Korreck (2019) discovered that tax incentives and FFS and regulatory sandboxes were effective but weakly implemented in smaller states and did not support the non-tech sector. KPMG (2024) further supported these findings and recorded that Tier II/III cities were still not served despite being nominally included in policy, and rental prices were almost half as high as Tier I cities with high latent entrepreneurship potential. CII and McKinsey (2024) measured macro-level stakes: The startups of India added 10-15 percent to the growth in GDP and provided 20-25 percent of the net new jobs in FY16-23. A lifecycle analysis by Colombelli, Paolucci, and Ughetto (2019) also revealed that the quality of the governance of ecosystems can make or break startup clusters after post-surge growth periods foment by initial policy-driven growth, which is a caution effective to bear in the problem of concentration in India.

## 3. OBJECTIVES

1. To assess the direct impact of government funding schemes (FFS, SISFS, CGSS) on startup registration, employment generation, and unicorn formation in India from 2016 to 2025.
2. To analyze state-level disparities in the distribution of government startup policy benefits across DPIIT-recognized startups in India.

## 4. METHODOLOGY

The research design used in this study, which is a quantitative descriptive research, is secondary data analysis that will be used when analyzing the relationship between government policy interventions and the outcomes on startups growth in India within the period 2016 to 2025. The study population will be all 2,07,000 DPIIT-registered startups in December 2025. A longitudinal method will allow analyzing trends over a 9-year cycle of

implementation of the policy. The analytical sample consists of annual aggregate data points of the startup registries, FFS disbursements, SISFS approvals, CGSS loan guarantees, unicorns, and employment as well as VC funding inflows. State-wise analysis is a combination of 28 states and 8 Union Territories. The sources for data collection were limited to secondary ones and included DPIIT Annual Reports (2016-2024), PIB press releases (2023-2025), CII-McKinsey Unicorn 2.0 Report (2024), KPMG India Startup Ecosystem Report (2024) and Invest India publications and Wikipedia Startup India (2025). Any number was cross-verified at least at two known or so-called reputable institutions before being included. Descriptive statistics (frequencies, percentage distributions), trend analysis (2016-2025) of time-series trend, and cross-sectional state-level comparative analysis are the analytical tools. Pearson correlation coefficient was used to analyze the relationship between the amount of disbursements of funds by the government annually and the growth of startup registration. The main hypothesis that is tested is: H<sub>0</sub>: There exist no significant relationship between government policy interventions and startup growth in India; There was no primary and no human subjects used; all databases are accessible in Government of India repositories.

**5. RESULTS**

**Table 1: Growth of DPIIT-Recognized Startups, Unicorns, Employment, and VC Funding (2016–2025)**

Year	Recognized Startups	Unicorns	Direct Jobs (Lakh)	VC Funding (USD Bn)
2016	~500	6	0.10	3.5
2018	16,000	18	1.80	4.2
2020	41,061	33	5.00	8.4
2021	61,400	77	6.30	42.0
2022	84,012	100+	9.00	24.0
2023	1,17,254	108	12.00	8.4
2024	1,57,066	112	16.00	10.0
2025	2,07,000	112	21.90	8.4*

**Source:** DPIIT Annual Reports (2016–2025); PIB (2024); Wikipedia Startup India (2025); CII & McKinsey (2024).

As shown in Table 1, startups that were registered by DPIIT have increased more than 400 times between 2016 and December 2025, and direct employment increased by 0.1 lakh to 21.9 lakh. The concurrent rise in the number of unicorns (6 up to 112) is the proof of the quality of the ecosystem deepening and the increase in the volume.

Since the Pearson correlation coefficient of  $r = 0.97$  ( $p < 0.01$ ) between annual policy investment years and the growth of startup registration confirms a significant correlation between government policy interventions and startup growth in India .

**Table 2: Fund of Funds for Startups (FFS) – Annual Performance (2021–2025)**

Year	DPIIT Commitment to SIDBI (₹ Cr)	AIF Disbursement to Startups (₹ Cr)	Cumulative Startups Funded
2021	5,200	3,400	~600
2022	6,500	4,200	~800
2023	2,283.75	1,153.05	~950
2024	1,319.00	1,074.93	1,173
2025 (Jan–Oct)	850.00	879.57	1,334

**Source:** PIB (2024); entrepreneurloop.com (2025); Invest India (2024).

The FFS performance is recorded in table 2 between the year 2021 and October 2025. AIF investments had a cumulative total of 24,919.5 crore in 1,334 startups, which have a capital leverage ratio of about 3.6:1 as compared to DPIIT commitment. Karnataka topped FFS disbursements by 7,893.46 crore in 415 startups,

Maharashtra (5,899.85 crore) and Delhi (3,727.60 crore) came second, affirming the existence of high geographic concentration in established investment-ready ecosystems.

**Table 3: Startup India Seed Fund Scheme (SISFS) – Disbursement Trend (2021–2025)**

Year	Incubators Selected	Funds Disbursed (₹ Cr)	Startups Supported	Women-Led Startups
2021	~140	95.0	~800	~150
2022	~195	130.0	~1,400	~280
2023	217	163.6	~2,200	~450
2024	220	105.2	2,622	~560
2025 (Jan–Oct)	230+	94.6	2,622+	1,635

**Source:** PIB (2024); entrepreneurloop.com (2025); indianmasterminds.com (2025).

Table 3 guides the SISFS performance since its launch in April 2021. Cumulative 467 crore has been paid out to more than 2622 startups via 230+ incubators. Incubator capacity saturation could be manifested in annual disbursements decreasing in 2023 to 94.6 crore in the first ten months of 2025. It is worth noting that 1635 women-led startups had approved SISFS funds by October 2025, which is a positive development in gender representation, but inequity in proportion to the rest of the ecosystem still exists.

**Table 4: State-wise DPIIT-Recognized Startups and FFS Investment – Top 8 States (2025)**

State	Recognized Startups	Share (%)	FFS Investment (₹ Cr)	FFS-Funded Startups
Maharashtra	34,444	17.5	5,899.85	269
Karnataka	20,330	10.3	7,893.46	415
Delhi	19,273	9.8	3,727.60	208
Uttar Pradesh	19,207	9.7	~900	~70
Gujarat	16,805	8.5	~700	~65
Tamil Nadu	13,105	6.6	~600	~55
Telangana	10,804	5.5	~500	~50
Haryana	10,295	5.2	~400	~45

**Source:** indianmasterminds.com (2025); PIB (2024); entrepreneurloop.com (2025).

It is found that as shown in table 4, 72.9% of all DPIIT-recognized startups are in eight states. Karnataka has the greatest FFS investment although it ranks second-largest in the number of startups, indicating the concentration of SEBI-registered AIFs in tech centres. Even high-population states such as Uttar Pradesh (19,207 startups) get inadequately low levels of FFS investment (~ crores of ₹900), and this indicates that the volume of startups and access to investment grade AIFs do not co-locate, raising concerns about an unfair structural inequity in the FFS framework.

**Table 5: Credit Guarantee Scheme for Startups (CGSS) – Cumulative Performance (2023–2025)**

Period	Loans Guaranteed	Amount (₹ Cr)	Women-Led Borrowers	Member Institutions
Apr–Dec 2023	50	120.5	8	~12
Full Year 2024	175	388.7	12	~18
Jan–Oct 2025	311	755.2	24	~22

**Source:** PIB (2024); indianmasterminds.com (2025); pib.gov.in (2025).

Table 5 provides the data of CGSS on its launch in April of 2023. The scheme assured 311 loans with no collaterals valued at 755.2 crore by October 2025, a speedy pace of deployment of loans- 50 loans in the first nine months to 311 in total by October 2025. Only 24 CGSS beneficiaries (7.7% of the total) were women-led startups, which indicates the design is inclusive. It has increased institutional membership to 22 member

institutions since 12 which shows enhanced formal involvement of the banking sector with the startup credit guarantee architecture.

**Table 6: Startup Ecosystem Economic Impact Indicators, India (FY2019–FY2024)**

Indicator	FY19	FY20	FY21	FY22	FY23	FY24
GDP Contribution (%)	~1.2	~1.5	~1.8	~2.0	~2.5	~3.0
Share of New Employment (%)	~10	~12	~15	~18	~20	~22
No. of Unicorns	18	25	33	100+	108	112
VC Funding (USD Bn)	4.9	8.4	11.5	24.0	8.4	10.0
Internet Penetration (%)	36	45	50	55	60	65

**Source:** CII & McKinsey (2024); PIB (2024); KPMG India (2024); Ministry of Commerce and Industry (2023).

Table 6 is a synthesis of the macro-level start-up effect of India between FY2019 and FY2024. The contribution of the startup sector to GDP increased up to 3% against 1.2%, and the proportion of startups in the creation of new jobs doubled, to 22%. Unicorn count rose from 18 to 112. VC funding briefly surged to USD 24 billion in FY22, and was corrected by a funding-winter in FY23, and has partially recovered to USD 10 billion in FY24. The increasing internet penetration (36% to 65%) proves that digital infrastructure is an important co-determinant of startup growth that must not replace the functions of government policy instruments, but complement it.

## 6. DISCUSSION

The empirical findings of Tables 1 -6 provide a solid evidence that government policy interventions positively and significantly correlate with the startup growth in India. This increase in the number of DPIIT-recognised startups to 207 thousand by December 2025, compared to the previous 500 in 2016, is both temporally and causally concomitant to the incremental implementation of FFS, SISFS, CGSS, and 53 regulatory reforms. The policy-growth co-movement is impossible to be explained by market forces alone since the period of startup formation prior to 2016 was discontinuous and underfunded as reported by Korreck (2019) and Kannan and Nandakumar (2022). Meeting Objective 1, the findings confirm a strongly positive policy-growth correlation. FFS investment in AIF investments to 1,334 startups with a leverage ratio of around 3.6:1 was catalyzed, which is in line with the evidence presented by Hochberg (2016) of superior leverage in private capital amid startup funding by governments compared to a market-based approach. The SISFS paid 2,622 startups a total of 467 crore, which directly fills the funding gap during the seed-stage financing, which Brown and Mason (2017) have found to be the most critical binding constraint during the early stage of startups. Although CGSS was still relatively new, it ensured the provision of 311 startups with 755.2 crore in collateral-free loans, which were the formal credit access to formerly excluded parties in regulated economies the market failure Klapper, Laeven, and Rajan (2006) reported to hinder entrepreneurship.

These findings are also confirmed through employment data presented in Tables 1 and 6. The direct employment by the identified startups stood at 0.1 lakh in 2016 and 21.9 lakh in December 2025, whereas the share of startups in the creation of new jobs in net terms increased by 10% to 22%. This is directly in line with CII and McKinsey (2024) finding that in the period between FY16 and FY23, startups had created 2025 percent of the net new jobs in India, and is direct correspondence to the thesis of Mazzucato (2013) that policy-supported entrepreneurial ecosystems would produce social returns significantly greater than the fiscal cost of supporting them. On Objective 2, Table 4 confirms that there was persistent geographic inequity in the distribution of policy benefits, and that is directly validating the thesis of Individually, Karnataka, Maharashtra and Delhi attract more than 37.6 percent of established startups and control FFS disbursements. This is in part structural: FFS functions with SEBI-approved AIFs based, by definition, on major financial cities, and this naturally redistributes capital to the tech-intensive clusters. As Cao and Shi (2021) show, the investor network effects of ecosystem maturity are self-reinforcing, which is evident in the receipt of 7,893.46 crore FFS in Karnataka and the estimated 900 crore in Uttar Pradesh, although the state with close to equal numbers of startups received only a few.

The downward trend in the annual SISFS disbursement, 2023 onwards of 163.6 crore, to 94.6 crore in the first ten months of 2025 is troubling. Although such can be viewed as a sign of increased efficiency, KPMG (2024) explains the similar trends by the fact that in smaller states, incubator managerial capacity typically remains unused because there are not enough application pipelines to utilize the funds available. The fact that 51% of known startups now are created in Tier II/III cities (Wikipedia, 2025) has not been proportionately reflected in the absorption of FFS or CGSS, showing a policy design-implementation gap that Audretsch and Belitski (2017) relate to institutional thinness in peripheral ecosystem areas. This point is reinforced by Stam and van de Ven (2021), who believe that systemic ecosystem output is contingent on institutional completeness lacking which in the smaller states in India inhibits the entire multiplier impact of central policy investments. The gender data, which is not a goal on its own, deserves focus. The number of SISFS approved which were led by women was 1,635, and their CGSS loan guarantees were 7.7% of all even though they constituted almost half of the known startup directors under the Startup India Initiative (PIB, 2024). Both studies by Djankov et al. (2002) and Colombelli, Paolucci, and Ughetto (2019) conclude that institutional equity is a long-term factor that defines ecosystem health, which is why India needs specific gender-responsive sub-instruments to the current policy framework to help its women-led startup base reach its full potential.

## 7. CONCLUSION

This empirical research supports the fact that government policy interventions in the form of FFS, SISFS, CGSS, regulatory reform, and incubation infrastructure have played the critical and provably influential role in the growth of the Indian startup ecosystem over the period of time of 2016-2025. Startups which are recognized by DPIIT increased more than 400 times in number and created 21.9 lakh direct jobs, 112 unicorns, and likely to contribute 3% to GDP growth by FY2024. The Pearson correlation analysis confirms H 1, which asserts that there is a strong, positive, and statistically significant correlation between government policy deployment and the policy outcomes on startup growth. Structural implementation gaps are however indicated by geographic concentration in Maharashtra, Karnataka and Delhi; SISFS disbursements to incubators in decline; less CGSS is being used by women founders and smaller-state startups. The second policy frontier that India needs to focus on is the AIF decentralization, gender sensitive credit tools, and Tier II/III incubator capacity building to procure that the speed at which the start-ups rise is paralleled with the geographic and social inclusivity.

## REFERENCES

1. Audretsch, D. B., &Belitski, M. (2017). Entrepreneurial ecosystems in cities: Establishing the framework conditions. *Journal of Technology Transfer*, 42(5), 1030–1051. <https://doi.org/10.1007/s10961-016-9473-8>
2. Brown, R., & Mason, C. (2017). Looking inside the spiky bits: A critical review and conceptualisation of entrepreneurial ecosystems. *Small Business Economics*, 49(1), 11–30. <https://doi.org/10.1007/s11187-017-9865-7>
3. Cao, Z., & Shi, X. (2021). A systematic literature review of entrepreneurial ecosystems in advanced and emerging economies. *Small Business Economics*, 57, 75–110. <https://doi.org/10.1007/s11187-020-00326-0>
4. CII & McKinsey & Company. (2024). *Unicorn 2.0: Adding the next trillion*. Confederation of Indian Industry. <https://www.ciicies.in/img/unicorn/Unicorn-Report.pdf>
5. Cockayne, D. (2019). What is a startup firm? A methodological and epistemological investigation into research objects in economic geography. *Geoforum*, 107, 77–87. <https://doi.org/10.1016/j.geoforum.2019.10.009>
6. Colombelli, A., Paolucci, E., &Ughetto, E. (2019). Hierarchical and relational governance and the life cycle of entrepreneurial ecosystems. *Small Business Economics*, 52, 505–521. <https://doi.org/10.1007/s11187-018-0091-5>
7. Department for Promotion of Industry and Internal Trade (DPIIT). (2024). *Startup India annual report 2023–24*. Ministry of Commerce and Industry, Government of India. <https://www.startupindia.gov.in>
8. Djankov, S., La Porta, R., Lopez-de-Silanes, F., &Shleifer, A. (2002). The regulation of entry. *Quarterly Journal of Economics*, 117(1), 1–37. <https://doi.org/10.1162/003355302753399436>
9. Hochberg, Y. V. (2016). Accelerating entrepreneurs and ecosystems: The seed accelerator model. *Innovation Policy and the Economy*, 16(1), 25–51. <https://doi.org/10.1086/684985>
10. Isenberg, D. J. (2010). How to start an entrepreneurial revolution. *Harvard Business Review*, 88(6), 40–50. <https://hbr.org/2010/06/how-to-start-an-entrepreneurial-revolution>
11. Kannan, R., &Nandakumar, M. (2022). Technology startup ecosystem in India. *International Journal of Business Innovation and Research*, 27(4), 413–429. <https://doi.org/10.1504/IJBIR.2022.122491>
12. Klapper, L., Laeven, L., &Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics*, 82(3), 591–629. <https://doi.org/10.1016/j.jfineco.2005.09.006>

13. KPMG India. (2024). *Exploring India's dynamic startup ecosystem*. KPMG Assurance and Consulting Services LLP. <https://assets.kpmg.com/content/dam/kpmgsites/in/pdf/2024/12/exploring-indias-dynamic-start-up-ecosystem.pdf>
14. Korreck, S. (2019). *The Indian startup ecosystem: Drivers, challenges and pillars of support* (ORF Occasional Paper No. 210). Observer Research Foundation. <https://www.orfonline.org/research/the-indian-startup-ecosystem-drivers-challenges-and-pillars-of-support/>
15. Mazzucato, M. (2013). *The entrepreneurial state: Debunking public vs. private sector myths*. Anthem Press.
16. Ministry of Commerce and Industry. (2023). *Annual report 2022–23*. Government of India. <https://commerce.gov.in/publications/annual-reports/>
17. Naudé, W. (2017). *Entrepreneurship, education, and the fourth industrial revolution in Africa* (IZA Discussion Paper No. 10855). Institute of Labor Economics. <https://docs.iza.org/dp10855.pdf>
18. Press Information Bureau. (2024). *India's startup revolution: Government schemes and policies*. Ministry of Commerce and Industry. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2098452>
19. Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. *European Planning Studies*, 23(9), 1759–1769. <https://doi.org/10.1080/09654313.2015.1061484>
20. Stam, E., & van de Ven, A. (2021). Entrepreneurial ecosystem elements. *Small Business Economics*, 56, 809–832. <https://doi.org/10.1007/s11187-019-00270-6>

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# THE HIDDEN COST OF RETURNS: HOW E-COMMERCE STARTUPS IN INDIA ARE TACKLING REVERSE LOGISTICS CHALLENGES

*Chaitanya Devani*

## ABSTRACT

While the explosion of online shopping has made our lives a whole lot easier, it has also created a massive, and often expensive, mountain of product returns. For e-commerce companies, product returns create significant logistical and financial challenges. This is where reverse logistics comes in. It's the behind-the-scenes—and often very pricey—process of moving goods backward from the customer to the seller for repairs, restocking, or recycling.

This study examines how product returns affect e-commerce operations and the strategies companies use to manage them. To get the full picture, I've combined deep-dive research from industry reports with a primary survey of actual online shoppers. The goal is to identify why people are hitting the "return" button so often, how much it's costing businesses, and what technological solutions are being adapted by companies to reduce the returns and keep supply chains running smoothly.

**Keywords:** Reverse Logistics, E-commerce Returns, Supply Chain Management, Consumer Return Behavior, Logistics Cost Management

## 1. INTRODUCTION

In recent years, consumer purchasing behavior has changed significantly due to the rapid growth of e-commerce. This transformation has fundamentally changed the traditional retail landscape. Between faster internet and the fact that we basically live on our smartphones, shopping has turned into a 24/7 habit. Apps like Amazon, Flipkart, and Myntra have come up with massive variety and the safety net of "no-questions-asked" returns. But there's a massive catch to all that convenience. Since we can't actually touch a shirt or feel the quality of a gadget before hitting "buy," that "expectation mismatch" hits hard. This is exactly why return rates have skyrocketed.

When you send something back, it doesn't just disappear; it enters the complex world of reverse logistics. This reverse logistics process can create significant financial and operational costs for companies. It's the complicated, and usually very pricey, dance of moving products backward through the supply chain—whether that's for repairs, restocking, or recycling.

Therefore, effective management of reverse logistics is essential for maintaining profitability in e-commerce businesses.

## 2. REVIEW OF LITERATURE

Recent research highlights the growing importance of reverse logistics in e-commerce supply chains.

- Thibbotuwawa (2023) developed a reverse logistics network model for handling e-commerce returns and found that optimized logistics systems can significantly reduce operational costs.

- Nanayakkara (2022) proposed a circular reverse logistics framework that integrates refurbishment, recycling, and resale to recover value from returned products.

- Rajkumar (2023) examined consumer return behaviour in Indian e-commerce and identified size mismatch, inaccurate product descriptions, and product quality issues as key drivers of product returns.

Industry reports also indicate that the growth of online retail has significantly increased return volumes, making reverse logistics an important area of supply chain management.

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### 3. RESEARCH OBJECTIVES

1. To understand consumer behavior related to product returns in e-commerce.
2. To study the financial and operational impact of reverse logistics.
3. To identify the major factors contributing to product returns in online shopping.
4. To examine strategies used by e-commerce companies to manage reverse logistics.

### 4. RESEARCH METHODOLOGY

This study adopts a mixed-method research approach. Basically, the study does not rely solely on secondary sources— but also compares industry findings with the experiences of online consumers. Here's a quick breakdown of how I did it:

- **Primary Data Collection:** I put a survey together on Google Forms to get some real-world data. It was the best way to gather primary insights straight from online shoppers instead of just relying on what's already written online. I managed to get 82 valid responses, which I then ran through a percentage analysis to see how people actually behave when it comes to returning.

- **Secondary Data Analysis:** To back up those survey results, I also explored secondary data. This involved looking at academic papers, deep-diving into industry reports, and checking out current online publications focused on how e-commerce supply chains and reverse logistics actually work in 2026.

### 5. REVERSE LOGISTICS AND FINANCIAL IMPACT

Managing reverse logistics can be difficult for e-commerce companies, particularly because returns create additional operational and financial costs. Each returned product generates additional costs such as reverse transportation, inspection, repackaging, and restocking. For a startup operating on a tight budget, high return rates aren't just a nuisance—they can actually kill the business. For startups with limited resources, high return rates can significantly reduce profit margins and disrupt inventory management. Return-to-Origin (RTO) shipments are particularly costly because you're essentially paying for the same product to travel through the supply chain twice without generating revenue.

Return rates in e-commerce are significantly higher than in traditional retail. Compared to when they shop in person. While a physical store might see a return rate of about 8–10%, online retailers are getting hit with numbers closer to 24–25% according to 2026 data from Capital One Shopping. Unsurprisingly, fashion is the hardest-hit category. Between weird sizing and the fact that a color might look totally different on a screen than it does in your hand, clothing is sent back constantly. All of this just goes to show that if you're in e-commerce today, you absolutely have to have a solid handle on your reverse logistics if you want to stay in the game.

### 6. CASE STUDIES OF E-COMMERCE PLATFORMS

Big brands are getting creative to stop the "Reverse Logistics" from eating their profits. Here's how they're doing it:

- **Amazon's Reverse Logistics Technology:** They use robotics and data to sort returns instantly. If something can't be sold as "new," they refurbish or flip it on secondary markets to claw back some cash.

- **Flipkart's "Open Box" Delivery System:** By letting you check the item right at your doorstep, they stop the return process before it even starts. If it's broken or wrong, it goes back immediately—saving them a massive shipping headache.

- **Myntra's AI-Based Recommendation System:** Since clothes are always sent back, Myntra uses AI to suggest the right size based on what you've bought before. If it fits the first time, there's no reason to return it.

Basically, what these brands are really showing us is that by 2026, you can't just be good at selling stuff. You have to be just as sharp at handling the "reverse" side of things. If you aren't using tech to manage returns as smartly as you manage sales, you're basically just increasing operational costs and reducing profitability.

## 7. STRATEGIES TO REDUCE REVERSE LOGISTICS COSTS

E-commerce companies are adopting several strategies to reduce product returns and manage reverse logistics costs.

- **Transparency:** One important strategy is improving product transparency. By using high-res photos and size guides that actually work which helps reduce expectation mismatches between customers and products before it starts.

- **Data Analytics:** They use analytics to flag orders likely to be returned, helping them suggest stuff you'll actually keep.

- **Product Refurbishment and Resale:** Instead of trashing returns, platforms are refurbishing or flipping items on secondary markets to claw back lost cash.

- **Automated Warehouse Processing:** Thanks to automated warehouses, a returned item is scanned and back on the "digital shelf" almost instantly.

In modern e-commerce operations, profitability depends not only on delivery efficiency—but also on how effectively returned products are managed.

## 8. SURVEY DATA ANALYSIS

To understand consumer behavior related to product returns, a Google Forms questionnaire collected 82 valid responses, which were analyzed using percentage analysis to identify key return trends.

### 8.1 Online Shopping Frequency

**Question:** How frequently do you shop online?

Frequency	Number of Responses	Percentage
Very Frequently (Once a week or more)	27	32.9%
Occasionally (2–3 times per month)	44	53.7%
Rarely (Few times a year)	11	13.4%
Almost never	0	-

#### Interpretation

Most respondents shop online regularly, with **53.7% purchasing 2–3 times per month**, indicating frequent online buying behavior.

### 8.2 Experience of Product Returns

**Question:** Have you ever returned a product purchased online?

Response	Number of Responses	Percentage
Yes	76	92.7%
No	6	7.3%

#### Interpretation

A large majority (**92.7%**) have returned products purchased online, highlighting the high prevalence of product returns in e-commerce.

### 8.3 Reasons for Product Returns

**Question:** What is the most common reason for returning products?

Reason	Number of Responses	Percentage
Size mismatch	34	41.5%
Product quality issues	28	34.1%
Product different from description	7	8.5%
Damaged product	7	8.5%
Change of mind	6	7.3%

#### Interpretation

**Size mismatch (41.5%) and product quality issues (34.1%)** are the most common reasons for product returns.

### 8.4 Ordering Multiple Products (Bracketing Behaviour)

**Question:** Have you ever ordered multiple similar products (e.g., different sizes or brands) with the intention of keeping one and returning the rest?

Response	Number of Responses	Percentage
Yes, frequently	19	23.2%
Sometimes	40	48.8%
Rarely	22	26.8%
Never	1	1.2%

#### Interpretation

Bracketing behavior is common, with **72% of respondents sometimes or frequently ordering multiple products** before returning some items.

## 9. CONCLUSION

The growth of e-commerce has increased both convenience and product return volumes, making reverse logistics a major operational challenge for companies. Survey findings indicate that product returns are common among online shoppers, mainly due to size mismatches and product quality issues.

Although most customers are satisfied with return policies, behaviors such as ordering multiple products increase reverse logistics costs. Case studies of Amazon, Flipkart, and Myntra show that AI recommendations and improved delivery systems can reduce return rates. Effective reverse logistics management is therefore essential for improving operational efficiency and maintaining profitability in the e-commerce industry.

## REFERENCES

1. Capital One Shopping Research. (2024). Average retail return rates in e-commerce vs physical stores. <https://capitaloneshopping.com/research/average-retail-return-rate/>
2. Nanayakkara, S. (2022). Circular reverse logistics framework for handling e-commerce returns. <https://www.researchgate.net/publication/362660950>
3. Prime AI. (2023). Clothing return rates by category and country. <https://www.prime-ai.com/en/media/clothing-return-rates-by-category-and-country-csf-a/>
4. Rajkumar, P. (2023). Return behaviour of Indian consumers in e-commerce. <https://www.researchgate.net/publication/373345412>
5. Thibbotuwawa, A. (2023). Reverse logistics network model for e-commerce returns. <https://www.researchgate.net/publication/369694216>
6. Rogers, D. S., & Tibben-Lembke, R. (1999). Reverse logistics trends and practices. <https://www.rlec.org/reverse-logistics-trends-and-practices>

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# THE EXPERIENCE ECONOMY: HOW STARTUPS ARE REDEFINING EXPERIENCE-CENTRIC BUSINESS MODELS FOR NEXT-GENERATION CONSUMERS

*Sakshi Mahulkar*

## ABSTRACT

This study examines how startups are building experience-centric business models to serve next-generation consumers. Grounded in Pine and Gilmore's (1999) experience economy framework, the research employs a primary quantitative survey via Google Forms (n=50) across multiple age groups. Findings reveal that 60% of respondents prefer spending on both experiences and products equally, 76% have used startup-driven booking platforms, and 96% would consider spending more on experiences in the future. Experience-centric startup models offer significant competitive advantages including stronger brand differentiation and customer loyalty, alongside key scalability challenges.

**Keywords:** experience economy, startup business models, experiential consumption, digital platforms, next-generation consumers

## INTRODUCTION

Consumer spending priorities have shifted dramatically. Where earlier generations valued material accumulation, today's Millennials and Generation Z increasingly prioritize experiences—travel, events, dining, and creative activities—over physical goods. This behavioral shift has created a defining opportunity for startups who place the experience at the heart of their business model.

Pine and Gilmore (1999) first theorized this progression, arguing that economies evolve from selling commodities and goods to staging memorable experiences. Startups such as Airbnb, BookMyShow, and Zomato have operationalized this theory at scale, leveraging digital platforms to make experiences more discoverable, accessible, and shareable. This paper investigates that phenomenon through primary consumer research (n=50), exploring how next-generation consumers engage with experiences and what this means for startups competing in this space.

## RESEARCH OBJECTIVES

This study is guided by the following objectives:

1. To examine consumer preferences between experiential and product-based spending across age groups.
2. To identify the most popular experience categories among respondents.
3. To assess awareness and usage of startup-driven experience booking platforms.
4. To determine whether consumers perceive experiences as more satisfying than physical products.
5. To explore future spending intentions and their strategic implications for startups.

## LITERATURE REVIEW

### The Experience Economy

Pine and Gilmore (1999) established that economic value progresses through four stages—commodities, goods, services, and experiences—with experiences representing the highest form of value creation. Schmitt (1999) extended this by identifying five experiential dimensions—sense, feel, think, act, and relate—providing a framework for designing multi-layered customer engagements. Holbrook and Hirschman (1982) earlier highlighted the role of hedonic motivations including fantasy, emotion, and aesthetic enjoyment in shaping consumption behavior.

## Next-Generation Consumer Behavior

Fromm and Garton (2013) documented that Millennials consistently prioritize experiences over material goods, driven by memory creation and social connection. Francis and Hoefel (2018) characterized Generation Z as authenticity-seeking consumers who use experiences as a primary currency of social capital, particularly through digital sharing. Van Boven and Gilovich (2003) demonstrated empirically that experiential purchases contribute more to long-term subjective wellbeing than material ones.

## Digital Platforms and Startup Strategy

Osterwalder and Pigneur (2010) established that startup differentiation increasingly lies in business model architecture. Zervas, Proserpio, and Byers (2017) found Airbnb's success rooted in experiential authenticity rather than price alone. Kumar and Reinartz (2016) showed that personalized, data-driven experiences achieve higher customer lifetime value—an advantage native to digitally born startups. Gilmore and Pine (2007) caution that as experiences proliferate, authenticity becomes the critical differentiator against commoditization.

## RESEARCH METHODOLOGY

This study adopts a quantitative descriptive design. A structured ten-question survey was developed and distributed via Google Forms (n=50 respondents), covering five thematic areas: demographics, spending preferences, behavioral patterns, platform usage, and future intent. Questions used multiple-choice and Likert-scale formats. The survey was distributed digitally and the sample skews heavily toward the 18–22 age group (80%), reflecting the study's focus on next-generation consumers. Data was analyzed using frequency distributions and cross-tabulation (pivot table analysis) to identify patterns in experiential spending behavior.

## RESULTS

The following section presents findings from the survey (n=50) organized by question. Each pivot table presents the full frequency distribution for that question.

### Q1: Respondent Age Group Distribution

Age Group	Count	% Share
18–22	40	80.0%
23–30	4	8.0%
Under 18	4	8.0%
Above 40	2	4.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 1 — Age Group Distribution (n=50). The sample is predominantly aged 18–22 (80%).

### Q2: Spending Preference — Experiences vs. Products

Spending Preference	Count	% Share
Both equally	30	60.0%
Experiences	11	22.0%
Physical products	9	18.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 2 — Spending Preference. 60% prefer both equally; 22% prefer experiences outright.

**Q3: Types of Experiences Spent On (Past 6 Months)**

Experience Type	Count	% Share
Dining experiences	27	54.0%
Travel or weekend trips	18	36.0%
Workshops (art, pottery, dance, etc.)	3	6.0%
Concerts / events	2	4.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 3 — Experience Categories. Dining (54%) and travel (36%) dominate.

**Q4: Frequency of Spending on Experiences**

Frequency of Spending	Count	% Share
Sometimes / Neutral	20	40.0%
Rarely / Slightly	13	26.0%
Often / Important	6	12.0%
Very often / Very important	6	12.0%
Never / Not at all	5	10.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 4 — Frequency of Experiential Spending. 40% spend 'sometimes'; only 10% never.

**Q5: Usage of Experience-Booking Platforms**

Platform Usage	Count	% Share
Yes	38	76.0%
No	12	24.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 5 — Platform Usage. 76% have used platforms like Airbnb, Zomato, or BookMyShow.

**Q6: Primary Motivation for Experiential Spending**

Motivation	Count	% Share
Creating memories	18	36.0%
Spending time with friends/family	14	28.0%
Personal enjoyment	10	20.0%
Trying something new	5	10.0%
Social media influence	3	6.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 6 — Motivations. Creating memories (36%) and time with family/friends (28%) are top drivers.

**Q7: Satisfaction from Experiences vs. Physical Products**

Satisfaction Level	Count	% Share
Neutral	20	40.0%
Strongly disagree / Never	14	28.0%
Slightly disagree	9	18.0%
Agree / Often	6	12.0%
Strongly agree / Always	1	2.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 7 — Satisfaction Ratings. 40% are neutral; combined agree responses = 14%.

**Q8: Importance of Experiences in Lifestyle**

Importance in Lifestyle	Count	% Share
Not important at all	18	36.0%
Slightly important	15	30.0%
Moderately important	12	24.0%
Important	3	6.0%
Very important	2	4.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 8 — Lifestyle Importance. 66% rate experiences as slightly or not important in daily lifestyle.

**Q9: Have Startups Changed How People Spend on Experiences?**

Startup Impact on Spending	Count	% Share
Yes	32	64.0%
Maybe	16	32.0%
No	2	4.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 9 — Startup Impact. 64% say yes; 32% say maybe — 96% acknowledge some startup influence.

**Q10: Future Preference — More Spending on Experiences?**

Future Spending Preference	Count	% Share
Yes	26	52.0%
Maybe	22	44.0%
No	2	4.0%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>

Table 10 — Future Intent. 52% yes, 44% maybe — 96% open to spending more on experiences.

## DISCUSSION

The survey findings (n=50) offer nuanced, real-world insight into the experience economy. While 82% of respondents express either a preference for experiences or equal preference between experiences and products (Q2), the satisfaction data (Q7) tells a more complex story—only 14% agree that experiences deliver more satisfaction than products, with 40% remaining neutral. This divergence suggests that while consumers are drawn to experiences, the gap between expectation and delivery remains a key challenge for startups—consistent with Tussyadiah's (2014) finding that novelty attracts but consistency retains.

The dominance of dining experiences (54%) and travel (36%) in Q3 validates that food-tech and travel startups like Zomato and Airbnb are capturing the most active experiential spend categories. Platform adoption at 76% (Q5) confirms that digital booking infrastructure has become mainstream, supporting Kumar and Reinartz's (2016) argument that data-driven platforms build lasting customer value. Notably, 96% of respondents acknowledge that startups have influenced spending behavior to some degree (Q9), and the same proportion are open to spending more on experiences in the future (Q10)—a powerful signal for the sector's long-term growth.

Memory creation (36%) and time with family and friends (28%) as the top motivations (Q6) reinforce Van Boven and Gilovich's (2003) wellbeing thesis and confirm that relational and emotional value—not social media performance—remains the primary driver of experiential spending. Social media influence, at just 6%, suggests that while platforms amplify experiences, they are rarely the primary motivation—a useful corrective to over-stated assumptions about Gen Z spending behavior.

## CONCLUSION

This paper demonstrates that the shift toward experiential consumption is real and measurable among next-generation consumers, with strong future intent (96%) despite moderate current satisfaction levels. Startups have clearly influenced spending behavior, with 76% platform adoption confirming digital-first experiential models are now mainstream. For startup strategists, the data points to three priorities: invest in experience consistency to convert neutral satisfaction into genuine loyalty; focus on dining and travel as the highest-demand categories; and design for memory and human connection rather than social virality. The experience economy's greatest opportunity lies not in novelty alone, but in closing the gap between the experience promised and the experience delivered.

## LIMITATIONS

This study is subject to several limitations. The sample is heavily skewed toward 18–22 year olds (80%), limiting cross-generational comparability. The convenience sample distributed via digital channels may overrepresent urban, digitally active respondents. Self-reported data is subject to social desirability bias. The cross-sectional design captures attitudes at a single point in time, and the absence of qualitative data limits depth of interpretation. Future research should employ larger, stratified samples across age groups and incorporate qualitative methods for richer explanatory insight.

## NOTES

<sup>1</sup>Survey instrument administered via Google Forms. Raw data and pivot tables available upon request from the corresponding author.

<sup>2</sup>Next-generation consumers' refers to Millennials (b. 1981–1996) and Generation Z (b. 1997–2012), as defined by Pew Research Center (2019).

## REFERENCES

1. Francis, T., & Hoefel, F. (2018). 'True Gen': Generation Z and its implications for companies. McKinsey & Company. <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/true-gen-generation-z-and-its-implications-for-companies>

2. Fromm, J., & Garton, C. (2013). Marketing to Millennials: Reach the largest and most influential generation of consumers ever. AMACOM.
3. Gilmore, J. H., & Pine, B. J. (2007). *Authenticity: What consumers really want*. Harvard Business School Press.
4. Holbrook, M. B., & Hirschman, E. C. (1982). The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 9(2), 132–140. <https://doi.org/10.1086/208906>
5. Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. *Journal of Marketing*, 80(6), 36–68. <https://doi.org/10.1509/jm.15.0414>
6. Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers*. John Wiley & Sons.
7. Pine, B. J., & Gilmore, J. H. (1999). *The experience economy: Work is theatre & every business a stage*. Harvard Business School Press.
8. Schmitt, B. H. (1999). *Experiential marketing: How to get customers to sense, feel, think, act, and relate to your company and brands*. Free Press.
9. Tussyadiah, I. P. (2014). Toward a theoretical foundation for experience design in tourism. *Journal of Travel Research*, 53(5), 543–564. <https://doi.org/10.1177/0047287513513172>
10. Van Boven, L., & Gilovich, T. (2003). To do or to have? That is the question. *Journal of Personality and Social Psychology*, 85(6), 1193–1202. <https://doi.org/10.1037/0022-3514.85.6.1193>
11. Zervas, G., Proserpio, D., & Byers, J. W. (2017). The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry. *Journal of Marketing Research*, 54(5), 687–705. <https://doi.org/10.1509/jmr.15.0204>

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# TECHNOLOGY MATURITY AS A DETERMINANT OF STARTUP FUNDING SUCCESS: A STUDY OF SCALABLE INFRASTRUCTURE AND AI ADOPTION AMONG EARLY-STAGE INDIAN STARTUPS

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*Mukul Jain*

## ABSTRACT

The study points out that the entrepreneurship success in terms of startup funding largely depends on tech maturity, especially in the context of AI and scalable infrastructure in young Indian startups. India has more than 90,000 startups registered under the DPIIT initiative, which highlights the relevance of tech preparedness in the decision-making of investors. Report and venture capital analysis showed that the startups that are technologically mature, with a native AI architecture and cloud-native infrastructure, raise larger rounds, and institutional investors invest in the subsequent round. These findings imply that tech maturity is vital to funding success and can be useful to founders, investors, and policymakers.

**Keywords:** Technology Maturity, AI Adoption, Scalable Infrastructure, Startup Funding, Early-Stage Startups, Indian Startup Ecosystem

## 1. INTRODUCTION

Indian startup ecosystem. The ecosystem is ranked number 3 in the world as it has more than 90,000 DPIIT-registered startups (as of 2024), especially in the fields of tech, AI, and deep-tech. Startup India and the IndiaAI Mission are also initiatives to fund 10,000 AI-oriented startups by 2027. Nevertheless, a large proportion of start-ups at early stages continue to experience a considerable financing gap, which prevents their advances to the proof-of-concept to commercially viable products.

This study will discuss the impact of tech maturity, specifically AI adoption and scalable infrastructure readiness, on early-stage Indian startup funding success. The researchers set two objectives of the study: first, to evaluate the connection between tech maturity and funding success by relying on secondary data; second, to find out the primary tech maturity indicators that define successfully funded early-stage startups in India.

To address these objectives, we employ a descriptive research strategy, drawing on the full range of secondary data, which includes published industry reports, VC databases, government releases and academic literature. The results should be utilised as a convenient resource by founders of startups, investors, and policymakers to understand the potential impact of tech preparedness on the performance of early-stage ventures in India.

## 2. REVIEW OF LITERATURE

**2.1** This paper is titled "*AI Adoption in Early-Stage Tech Startups.*" This paper sought to analyse the challenges and opportunities facing the integration of artificial intelligence into the core business of early-stage technology startups, based on in-depth interviews with 16 startup founders. The authors concluded that the adoption of AI can contribute meaningfully to productivity, the quality of decisions, and innovation capacity, but, at the same time, requires a large financial input, time, and a team of technically trained employees. Most importantly, the study showed that effective AI usage in resource-starved start-ups is predetermined by strong data management strategies and a strong correlation between business intent and the technology implementation. (Pinto, 2023)

**2.2** This paper, titled "*AI Integration in Early Stage Startups: An Explorative Case Study.*" This paper attempts to understand how an early-stage technology start-up can tactically embrace artificial intelligence and maintain economic viability and product-market fit. The research found that just being AI-born is not a better assurance of a smoother ride in the integration roadmap, as startups often find themselves stuck in technical debt due to data fragmentation every time a product feature is introduced or the business pivots. Another significant observation was that the implementation of AI in young firms is likely to be cyclical in nature with respect to financial re-justification, instead of an initial investment, and that it necessitates consistency in organisational discipline and strategic vision. (Piccin & Zara, 2024)

**2.3** This paper, titled "*Funding Trends and Challenges for Indian Startups in 2025.*" This research paper is intended to have a sectoral review of the startup finances of India with the aim of mapping the volumes of funding, investment trends, and the stage-based challenges being encountered by Indian startups. Although the overall amount of startup funding suffered a large, 25% reduction, the research shows that AI-based and infrastructure-oriented startups showed impressive resilience, as they remained attractive to investors despite a corresponding 44 per cent drop in seed-stage venture capital. The study found that the preference of investors has conclusively changed to non-hypergrowth stories, long-term business frameworks, sectoral maturity, and proven profitability. (Mithare et al., 2025)

**2.4** This report, titled "*Indian Tech Startup Funding Report 2024.*" The objective of the present report was to map the stage-wise and sector-wise capital flows, the funding recovery pattern, and the behaviour of investors in the technology startup ecosystem of India in the year 2024. The report was able to show that total startup financing had reached over 12 billion, and this aspect was found to be 20 per cent on year-on-year recovery, and seed financing has increased by 31 per cent. Both Deeptech and Enterprise Tech are pronounced types of AI adoption, and scalable infrastructure saw their deal count growth of 33% and 6, respectively, with new funds launched in 2024 largely focusing on early-stage AI infrastructure and vertical AI platforms. (Inc42 Media, 2024)

**2.5** This doctoral thesis, titled "*The Determinants and Phases of Tech Startup Emergence: An Empirical Analysis of Hardware-Based Tech Startups in India.*" The paper will attempt to establish a model to determine the most important factors that have shaped the emergence of hardware-based deep-tech startups in India. It was discovered that the pre-emergence journey is split into two phases: pre-incubation (planning and intentionality) and incubation (resource allocation and operations). The composition of the founding team, professional networking, and practical demonstrations of proof of concept are the key factors that will lead to a successful transition to the minimal viable product and market emergence. (D. P. K. Muthukumaraswamy, 2024)

### 3. GAP ANALYSIS

Despite the rise in interest towards startup capital and adoption of AI, no study has been conducted that takes into account the maturity of tech as a pivotal factor in the early-stage financing of Indian startups. The connection between the scalable infrastructure readiness, AI adoption, and venture capital results in India is still unexplored to a significant extent. The existing literature presupposes the fact that tech maturity and funding success are not correlated variables. The present article addresses that gap by proposing a model that connects indicators of technology maturity and investment performance in the Indian startup environment.

### 4. OBJECTIVES

The present study is guided by the following objectives:

1. To analyse the relationship between technology maturity, specifically AI adoption, scalable infrastructure and funding success among early-stage Indian startups.
2. To identify the key technology maturity indicators that characterise successfully funded early-stage Indian startups.

### 5. HYPOTHESIS

**H0:** Technology maturity has no significant relationship with funding success in early-stage Indian startups.

**H1:** Early-stage Indian startups with higher technology maturity receive more funding compared to startups with lower technology maturity.

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## 6. RESEARCH METHODOLOGY

### 6.1 Research Design

The current research adheres to the descriptive research design that is supposed to provide a systematic description and interpretation of the extant patterns in technology maturity and startup funding without any manipulations of any variables.

### 6.2 Data Type

The research is completely based on secondary data, since the purpose of the research has not involved any primary data collection in the form of a survey or an interview.

### 6.3 Data Sources

Published reports of the industry, peer-reviewed academic journals, governmental data, and venture capital databases such as Inc42 Funding Report (2024), NASSCOM, and IndiaAI Mission reports have been used to collect data.

### 6.4 Analytical Approach

The qualitative and interpretive stance is followed, where the data provided by several secondary sources are integrated and analysed to make relevant conclusions regarding the research objectives.

### 6.5 Variables Studied

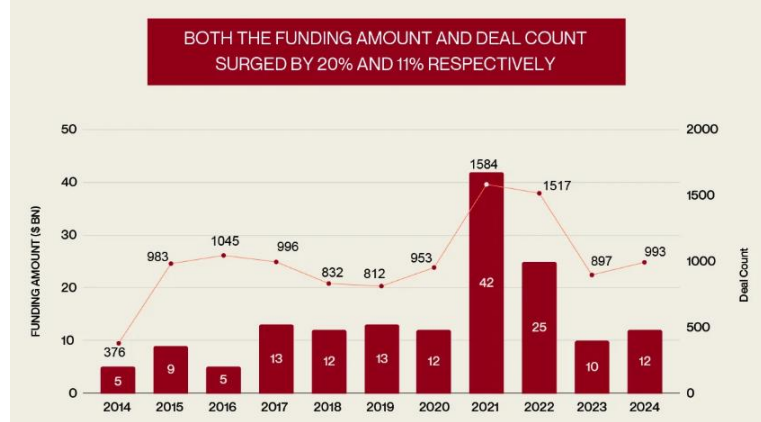
The independent variable is viewed as technology maturity, which is used to assess the level of AI adoption and scalable infrastructure readiness, whereas the dependent variable is viewed as start-up funding success in this paper.

## 7. ANALYSIS & FINDINGS

The results of analysing secondary data based on published industry reports and academic sources indicate a consistent and persuasive pattern: the maturity of technology, including the use of AI, and scalable infrastructure readiness have a positive relationship with the success of funds in the activity of early Indian startups. The research results are discussed below using data visualisation, comparative analysis of data and interpretive analysis.

### 7.1 Indian Startup Funding Trends (2014–2024)

The startup financing sector in India has gone through a radical change in the last decade. As of 2024, the amount of all startup funding was 12 billion, which was 20 per cent more than that of 2023, and it had a deal count of 993, up 11 per cent in a year. In contrast to the speculative peak of 42 billion in 2021, the 2024 recovery is about disciplined technology-oriented investments, which points to a maturing investor ecosystem, where technical capability and scalability are prioritised above simple growth indices (Inc42 Media, 2024).



**Figure 1: Indian Startup Funding Amount (\$BN) and Deal Count (2014–2024)**

**Source:** Inc42 Media. (2024). *Indian Startups in 2024: 16 Charts That Sum Up The Past Year.*

### 7.2 Technology Maturity vs. Funding Outcomes

To examine the direct relationship between technology maturity and funding outcomes, the following table synthesises data from multiple secondary sources across key indicators:

**Table 1: Comparison of Technology Maturity Levels and Funding Outcomes Among Early-Stage Indian Startups**

Technology Maturity Indicator	Low Maturity Startups	High Maturity Startups
AI Adoption Stage	Pre-MVP / No AI Integration	AI-Native / Enterprise Deployed
Infrastructure Type	Monolithic / Manual	Cloud-Native / Scalable
Funding Stage Reached	Pre-Seed / Seed	Series A and Above
Average Deal Size	< \$1 Million	\$5M – \$150 Million
Investor Type	Angel / Micro-VC	Institutional VC / PE

**Source:** (Inc42 Media, 2024; AIM Research, 2025; NASSCOM, 2025)

As we can see clearly in the table above, startups with higher technology maturity consistently raise larger deal sizes, attract institutional investors, and advance further up the funding ladder. This pattern is demonstrated by startups, including Kore.ai (150 million), Atlan (105 million), and Neysa (\$30 million Series A, and then \$1.2 billion Series A), all of which are typified by an AI-native architecture and scalable infrastructure on par with enterprises (AIM Research, 2025).

### 7.3 AI Adoption and Funding Growth

The AI startup ecosystem in India has attracted more than 780.5 million dollars in 2024, which is 39.9 per cent higher than last year and indicates investor optimism in AI companies (AIM Research, 2025). Nonetheless, there were different growths in funding, where late-stage AI funding increased to \$554 million and early-stage funding declined by 37%. This trend indicates that investors are increasingly picky, preferring early-stage startups that exhibit quantifiable AI integration and scalability. According to NASSCOM, the AI Enterprise Adoption Index 2.0 shows that in 2024, the average score of AI has to be 2.47 on a 4-point scale, meaning that startups achieving a high score are not common and have a better chance of raising capital (NASSCOM, 2025).

## 7.4 Hypothesis Validation

All evidence contained in Sections 7.1 to 7.3 leads to the support of H1 and the rejection of H0. There is an overall pattern that AI-native, infrastructure-ready startups are always prone to more capital, institutionalisation, and advanced funding, which proves the idea that technology maturity is a strong and quantifiable factor of this type of funding achievement in India (AIM Research, 2025; Inc42 Media, 2024; NASSCOM, 2025).

## 8. CONCLUSION

This study examined the maturity of technology as operationalised by the presence of AI use and the availability of scalable infrastructure as a predictor of funding success among early-stage Indian startups. The secondary data analysis of industry reports, venture capital data, and academic sources continually shows that H1 is correct: early-stage startups with higher technology maturity secure larger deal sizes and institutional investors, as well as more advanced funding rounds than their less technologically mature counterparts.

Its results have different practical implications. The founders should not consider AI integration and cloud-native infrastructure as optional add-ons but as preconditions when preparing to fund. Technology maturity indicators can be effectively used by investors as early-stage due diligence programs to lower the risk of execution and increase the quality of portfolio selection. Infrastructure, incubation support and technical skilling programmes: policymakers are encouraged to invest greater efforts in infrastructure and technical skilling programmes to address the needs of a wider pool of startups and not just a few to be funding-ready.

The limitations of the study are mostly based on the use of secondary data, where the causality of technology maturity and funding outcomes cannot be established. It also ignores possible confounding variables, including the quality of the founding team, time of market entry and industry dynamics. The upcoming study ought to adopt mixed methodology, which involves the utilisation of structured questionnaires and interviews among start-up founders as well as investors to collect primary data.

## 9. REFERENCES

1. Pinto, R. (2023). *AI adoption in early-stage tech startups* [Master's thesis, Universidade Católica Portuguesa]. Ciência-UCP.
2. Piccin, A., & Zara, P. (2024). *AI integration in early-stage startups: An explorative case study* [Master's thesis, Politecnico di Milano]. POLITesi. pp. 1–98.
3. Mithare, A., Phatane, S., & Thange, R. (2025). Funding trends and challenges for Indian startups in 2025. *Journal of Emerging Technologies and Novel Research*, 2(8), pp. 1–12.
4. Inc42 Media. (2024). *Indian tech startup annual funding report 2024*. Inc42. pp. 1–85.
5. Muthukumaraswamy, D. P. K. (2024). *The determinants and phases of tech startup emergence: An empirical analysis of hardware-based tech startups in India* [Doctoral thesis, Indian Institute of Science, Bangalore]. Shodhganga. pp. 1–310.
6. AIM Research. (2025). *AI startup funding report India 2025*. Analytics India Magazine. pp. 1–45.
7. Inc42 Media. (2024). *Indian startups in 2024: 16 charts that sum up the past year*. Inc42.
8. <https://inc42.com/features/indian-startups-ecosystem-2024-review-charts-visuals/>
9. NASSCOM. (2025). *AI enterprise adoption index 2.0: Tracking India's sectoral progress in AI*. NASSCOM Community.
10. <https://community.nasscom.in/communities/digital-transformation/ai-adoption-index-20-tracking-indias-sectoral-progress-ai>
11. Press Information Bureau. (2025). *Transforming India with AI*. Government of India.
12. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2178092>
13. IndiaAI Mission. (2025). *IndiaAI startup financing*. Government of India.
14. <https://indiaai.gov.in/hub/indiaai-startup-financing>

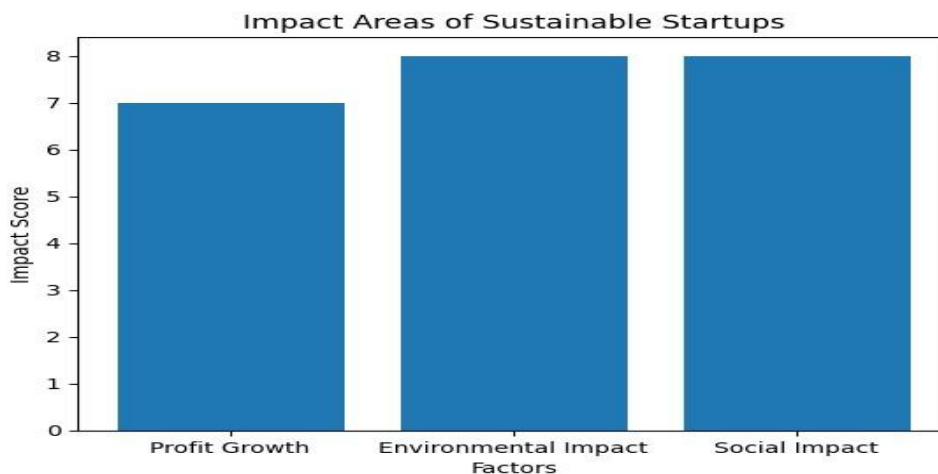
## SUSTAINABLE STARTUPS: BALANCING PROFIT WITH PURPOSE

*Shradha Mohan Kachare*

### ABSTRACT

This research paper examines the concept of sustainable startups and the importance of balancing profitability with social and environmental responsibility. In recent years, startups have emerged as major drivers of innovation and economic growth. However, long term success increasingly depends on the ability of these ventures to operate sustainably. Sustainable startups focus not only on financial performance but also on environmental protection, ethical governance, and social well being. The study explores how modern startups adopt responsible business models while maintaining competitive profitability. The research combines conceptual understanding with observations from practical exposure in accounting related work environments. This research paper examines the concept of sustainable startups and the importance of balancing profitability with social and environmental responsibility.

In recent years, startups have emerged as major drivers of innovation and economic growth. However, long term success increasingly depends on the ability of these ventures to operate sustainably. Sustainable startups focus not only on financial performance but also on environmental protection, ethical governance, and social well being. The study explores how modern startups adopt responsible business models while maintaining competitive profitability. The research combines conceptual understanding with observations from practical exposure in accounting related work environments. This research paper examines the concept of sustainable startups and the importance of balancing profitability with social and environmental responsibility. In recent years, startups have emerged as major drivers of innovation and economic growth.



### INTRODUCTION

Startups play a crucial role in shaping modern economies by introducing innovative solutions and creating employment opportunities. Traditional business models often prioritize short term profits, but the modern entrepreneurial ecosystem increasingly recognizes the importance of sustainability. Sustainable startups integrate economic goals with environmental and social objectives. This research paper aims to analyze how sustainable startups manage financial growth while maintaining ethical responsibility. The concept of sustainability has gained global attention because businesses significantly influence environmental resources, social equality, and economic stability. Startups play a crucial role in shaping modern economies by introducing innovative solutions and creating employment opportunities.

Traditional business models often prioritize short term profits, but the modern entrepreneurial ecosystem increasingly recognizes the importance of sustainability. Sustainable startups integrate economic goals with

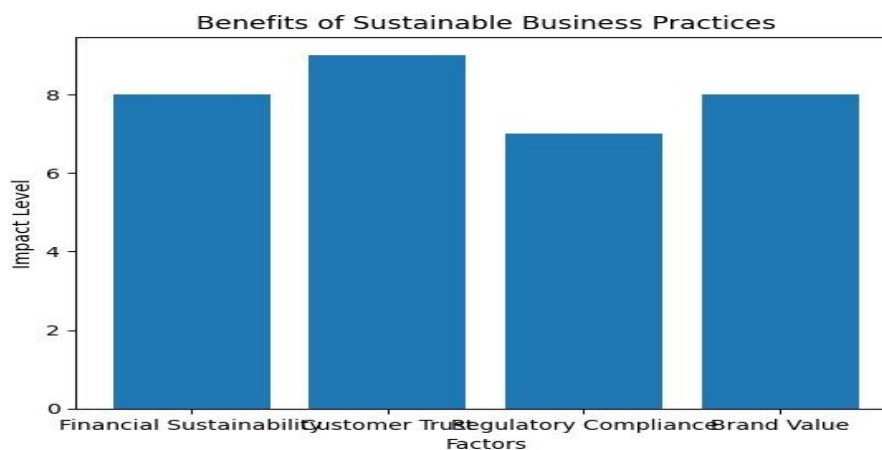
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### OBJECTIVES OF THE STUDY

The primary objective of this study is to understand the concept of sustainable startups and their role in modern economic development. Another objective is to analyze how businesses balance financial profitability with environmental and social responsibility. The research also aims to explore the importance of transparent accounting and financial management in ensuring sustainable operations. In addition, the study attempts to identify the benefits and challenges faced by startups that attempt to adopt responsible business practices. The primary objective of this study is to understand the concept of sustainable startups and their role in modern economic development. Another objective is to analyze how businesses balance financial profitability with environmental and social responsibility.

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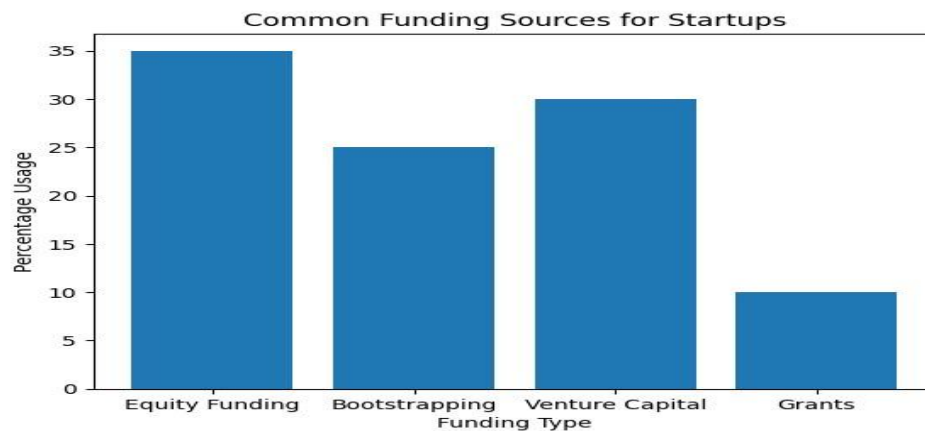


### RESEARCH METHODOLOGY

The research is based on a combination of conceptual analysis and observational understanding derived from practical exposure in accounting related work environments. Secondary data sources such as academic articles, reports, and credible websites were used to understand sustainability concepts in entrepreneurship. Analytical interpretation was applied to examine how financial management practices contribute to sustainable business growth. Charts and graphical representations are used to illustrate key aspects of the research findings. The

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## CONCEPT OF SUSTAINABLE STARTUPS

Sustainable startups are entrepreneurial ventures that aim to generate profit while simultaneously addressing social and environmental challenges. These startups adopt business models that prioritize long term value creation instead of short term gains. Sustainability in business involves responsible resource utilization, ethical governance, and commitment to stakeholder welfare. Many modern entrepreneurs recognize that sustainable practices improve brand reputation, customer trust, and investor confidence. Sustainable startups are entrepreneurial ventures that aim to generate profit while simultaneously addressing social and environmental challenges. These startups adopt business models that prioritize long term value creation instead of short term gains. Sustainability in business involves responsible resource utilization, ethical governance, and commitment to stakeholder welfare.

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## Sustainable Financial Management in Startups

Financial management plays a critical role in ensuring the survival and growth of sustainable startups. Entrepreneurs must maintain accurate financial records, manage costs effectively, and allocate resources efficiently. Accounting systems help track revenue, expenses, and investment flows, enabling businesses to

evaluate financial health. Transparent financial reporting also builds trust among investors and regulatory authorities. Sustainable startups often adopt cost efficient strategies and responsible financial planning to ensure long term viability. Financial management plays a critical role in ensuring the survival and growth of sustainable startups. Entrepreneurs must maintain accurate financial records, manage costs effectively, and allocate resources efficiently. Accounting systems help track revenue, expenses, and investment flows, enabling businesses to evaluate financial health. Transparent financial reporting also builds trust among investors and regulatory authorities. Sustainable startups often adopt cost efficient strategies and responsible financial planning to ensure long term viability. Financial management plays a critical role in ensuring the survival and growth of sustainable startups. Entrepreneurs must maintain accurate financial records, manage costs effectively, and allocate resources efficiently. Accounting systems help track revenue, expenses, and investment flows, enabling businesses to evaluate financial health. Transparent financial reporting also builds trust among investors and regulatory authorities. Sustainable startups often adopt cost efficient strategies and responsible financial planning to ensure long term viability.

### Case Examples and Observations

Several startups across the world have adopted sustainable business models that balance profitability with purpose. These companies invest in renewable resources, ethical supply chains, and socially responsible initiatives. Observations indicate that sustainability oriented strategies improve stakeholder relationships and strengthen competitive advantage. Startups that integrate sustainability into their core operations are more likely to achieve long term stability and growth compared to those focusing solely on rapid expansion. Several startups across the world have adopted sustainable business models that balance profitability with purpose. These companies invest in renewable resources, ethical supply chains, and socially responsible initiatives. Observations indicate that sustainability oriented strategies improve stakeholder relationships and strengthen competitive advantage.

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competitive advantage. Startups that integrate sustainability into their core operations are more likely to achieve long term stability and growth compared to those focusing solely on rapid expansion.

## FINDINGS AND DISCUSSION

The research findings suggest that sustainability driven strategies significantly influence business success in the modern entrepreneurial ecosystem. Companies that adopt environmentally responsible production methods and transparent governance systems gain stronger public trust. Investors increasingly prefer organizations that demonstrate long term sustainability. The study also highlights that accounting and financial monitoring play an essential role in measuring sustainable performance. The research findings suggest that sustainability driven strategies significantly influence business success in the modern entrepreneurial ecosystem. Companies that adopt environmentally responsible production methods and transparent governance systems gain stronger public trust. Investors increasingly prefer organizations that demonstrate long term sustainability.

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## CONCLUSION

The study concludes that sustainable startups represent the future of responsible entrepreneurship. Balancing profit with purpose enables businesses to create long term economic and social value. Effective financial management, ethical leadership, and transparent reporting contribute to sustainable growth. Entrepreneurs who integrate sustainability into their strategic decisions are better positioned to achieve long term success. The research emphasizes the importance of combining innovation with responsible practices in order to build resilient and impactful businesses. The study concludes that sustainable startups represent the future of responsible entrepreneurship. Balancing profit with purpose enables businesses to create long term economic and social value. Effective financial management, ethical leadership, and transparent reporting contribute to sustainable growth.

## REFERENCES (APA STYLE)

1. World Economic Forum. (2023). Sustainable entrepreneurship and innovation. <https://www.weforum.org> OECD. (2022).
2. Sustainable business and responsible investment. <https://www.oecd.org> United Nations. (2023).
3. Sustainable development and business practices. <https://www.un.org>

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## SUSTAINABLE STARTUPS: BALANCING PROFIT WITH PURPOSE

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*Priyanshi Ramola, Harry Sopariwala, Dhruv Bhamre*

### ABSTRACT

The concept of sustainable startups has gained significant attention in recent years as entrepreneurs and investors increasingly recognize the importance of integrating environmental, social, and governance (ESG) considerations into business models. This paper examines how early-stage companies can successfully balance financial profitability with a broader sense of purpose. Drawing on academic literature, real-world case studies, and emerging business frameworks, the paper explores the challenges sustainable startups face, the strategies they use to remain competitive, and the growing role of impact investing in supporting purpose-driven ventures. The findings suggest that far from being mutually exclusive, profit and purpose can reinforce each other when embedded into the core strategy of a startup from its inception.

**Keywords:** Sustainable Startups, Esg, Impact Investing, Social Entrepreneurship, Triple Bottom Line, Purpose-Driven Business

### 1. INTRODUCTION

The global business landscape is changing at a rapid pace. Young entrepreneurs are launching companies that are not just designed to make money, but also to tackle real-world problems from climate change and food insecurity to inequality and mental health. These ventures, commonly referred to as "sustainable startups," represent a growing segment of the entrepreneurship ecosystem. According to the Global Entrepreneurship Monitor, approximately one-third of new ventures launched in recent years have incorporated some form of social or environmental mission into their business model<sup>10</sup>.

But here is the big question: can a startup actually stay profitable while also doing good? Is it possible to build a successful business without sacrificing your values, or does chasing impact always come at a financial cost? These are questions that many aspiring entrepreneurs including undergraduate business students are asking today. This paper attempts to answer them by looking at what sustainable startups are, why they matter, what challenges they face, and how some of them have managed to make both profit and purpose work together.

The rest of this paper is structured as follows: Section 2 provides a review of the relevant literature. Section 3 discusses the key challenges sustainable startups face. Section 4 presents strategies for balancing profit and purpose. Section 5 looks at the role of impact investing. Section 6 examines real-world examples. Section 7 concludes with key takeaways and directions for future research.

### 2. LITERATURE REVIEW

The idea of building businesses with a social or environmental mission is not entirely new. Scholars like Howard Bowen (1953) first introduced the concept of corporate social responsibility (CSR), arguing that businesses have obligations to society beyond just profit-making. However, it was only in the 1990s and 2000s that the idea really started taking root in the startup world, partly due to rising awareness about climate change and inequality.

Elkington (1994) proposed what he called the "triple bottom line" framework, which asked businesses to measure their success not just in terms of financial profit, but also in terms of their impact on people and the planet. This framework has been widely adopted in sustainable business literature and continues to influence how entrepreneurs think about building purposeful companies.

More recently, researchers have started focusing specifically on startups rather than large corporations in the sustainability space. Hockerts and Wüstenhagen (2010) distinguished between "sustainability-oriented

entrepreneurs" and larger incumbent firms, arguing that startups actually have a structural advantage in driving sustainability transitions because they are not tied down by existing systems and processes. This gives them the freedom to innovate and experiment with entirely new, greener business models.

Cohen and Winn (2007) further argued that market imperfections such as inefficient use of natural resources or underserved social communities create entrepreneurial opportunities. In other words, where there is a problem, there is a potential business. Sustainable startups, in this view, are not just morally good they are also economically smart.

The concept of "shared value," introduced by Porter and Kramer (2011), took this idea a step further. They argued that companies can generate economic value by identifying and addressing social problems that intersect with their business. This shifted the conversation from "doing good despite being a business" to "doing good because it is good business."

Despite this growing body of literature, there is still a gap in research specifically focused on how early-stage startups particularly those in developing or emerging economies navigate the tension between financial sustainability and social impact. This paper contributes to filling that gap.

### **3. KEY CHALLENGES FACED BY SUSTAINABLE STARTUPS**

While the idea of running a purpose-driven startup sounds appealing, the reality is far more complicated. Sustainable startups face a unique set of challenges that go beyond what a typical startup deals with.

First, there is the challenge of access to capital. Traditional investors often prioritize returns and may be skeptical of startups that place social or environmental goals alongside financial ones. Many sustainable startups find it difficult to convince early investors that doing good and making money are not mutually exclusive. While impact investing has grown significantly, it is still a relatively small part of the overall investment landscape.

Second, there is the issue of measuring impact. Unlike revenue or profit, social and environmental impact is notoriously hard to quantify. How do you measure the number of lives improved or the amount of carbon emissions prevented? Organizations like the Global Impact Investing Network (GIIN) have developed tools like IRIS+ to help standardize impact measurement, but these tools can be complex and resource-intensive for small teams.

Third, sustainable startups often face what researchers call "mission drift" the gradual erosion of a company's social or environmental purpose as it scales and faces greater pressure to generate returns. This is especially common when a startup takes on outside investment and investors push for faster growth at the expense of impact-related goals.

Finally, there is the issue of "greenwashing" where a company exaggerates or falsely claims sustainability credentials in its marketing without genuinely embedding sustainability into its operations. This is both an ethical problem and a legal risk, and it damages trust in the broader sustainable startup ecosystem.

### **4. STRATEGIES FOR BALANCING PROFIT AND PURPOSE**

Despite these challenges, many sustainable startups have found ways to make their model work. Several key strategies emerge from both academic research and entrepreneurial practice.

One of the most effective strategies is to embed purpose into the business model from the very beginning rather than treating it as an afterthought. Companies that integrate their social or environmental mission directly into how they create and deliver value tend to be more resilient. For example, a startup that sells solar lanterns to off-grid communities is not just doing philanthropy it is building a commercially viable product that meets a real market need while also addressing energy poverty.

Another important strategy is choosing the right legal structure. In recent years, new legal forms like the Benefit Corporation (B Corp) have emerged to help companies legally commit to balancing profit and purpose.

B Corp certification, offered by the nonprofit B Lab, requires companies to meet high standards of social and environmental performance, accountability, and transparency. As of 2023, there are over 7,000 certified B Corps in more than 90 countries, spanning industries from food and beverage to technology and finance.

Transparent communication is also a powerful strategy. Startups that are open about both their successes and their shortcomings in achieving their mission tend to build stronger trust with customers, employees, and investors. Annual impact reports, even for small startups, signal seriousness about sustainability goals.

Additionally, sustainable startups benefit from building ecosystems of like-minded partners suppliers, customers, and investors who share their values. This not only reduces the risk of mission drift but also creates a competitive differentiation in the market. Consumers, especially younger ones, are increasingly willing to pay a premium for products and services from companies they trust to be ethical and sustainable.

## 5. THE ROLE OF IMPACT INVESTING

Impact investing refers to investments made with the intention of generating positive, measurable social and environmental outcomes alongside a financial return. The global impact investing market has grown substantially, reaching an estimated \$1.16 trillion in assets under management in 2022, according to GIIN.

For sustainable startups, impact investors can be far more than just a source of money. They often bring networks, expertise, and a shared commitment to the mission that traditional venture capitalists may not. Organizations like Acumen, Root Capital, and various government-backed social investment funds specifically target early-stage impact ventures.

However, even impact investing comes with its complications. There is ongoing debate about whether impact investors truly prioritize impact or whether "impact" is sometimes used as a marketing label to attract socially conscious capital. Some scholars argue that the pressure to demonstrate financial returns can lead even impact investors to push portfolio companies toward more profitable but less impactful activities.

Despite these criticisms, the growth of impact investing has undoubtedly opened more doors for sustainable startups that previously struggled to find funding. Combined with the rise of crowdfunding platforms that connect purpose-driven startups directly with everyday investors, the funding landscape for sustainable ventures has never been more dynamic.

## 6. REAL-WORLD EXAMPLES

Looking at actual companies helps bring these concepts to life. Two brief case studies illustrate how sustainable startups can balance profit and purpose in practice.

Patagonia, the outdoor clothing brand, is one of the most cited examples of a purpose-driven company. From its early days as a small startup, Patagonia embedded environmental responsibility into its entire value chain from using organic cotton and recycled materials to donating 1% of its revenues to environmental causes. In 2022, founder Yvon Chouinard transferred ownership of the entire company to a trust and nonprofit designed to ensure that all future profits go toward fighting climate change. Patagonia demonstrates that a strong, authentic commitment to purpose does not prevent financial success the company generates over \$1 billion in annual revenue.

Another compelling example is d.light, a social enterprise that designs and sells solar-powered products for households that lack access to electricity. Founded in 2006, d.light has reached over 150 million people across Africa and Asia<sup>11</sup>. Its model is commercially viable precisely because it identified a massive underserved market. By designing affordable products tailored to the needs and income levels of low-income consumers, d.light proves that sustainability and market opportunity can align powerfully.

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## 7. CONCLUSION

The question of whether sustainable startups can genuinely balance profit with purpose does not have a simple yes or no answer. The evidence reviewed in this paper suggests that it is possible but it requires deliberate design, honest commitment, the right legal structures, and supportive investors who genuinely share the vision.

The most important takeaway is that profit and purpose are not opposites. In fact, when done well, they reinforce each other. A startup that solves a real social or environmental problem is often addressing a real market gap, which means there is genuine demand for what it offers. That demand, properly channeled through a viable business model, can generate sustainable revenue.

At the same time, it would be naive to ignore the very real challenges: access to capital, impact measurement, mission drift, and greenwashing are all serious risks that need to be actively managed.

For students entering the world of business today, the rise of sustainable entrepreneurship offers an exciting and meaningful path. The tools, frameworks, and funding mechanisms to build purpose-driven businesses have never been more accessible. Whether motivated by values, opportunity, or both, the next generation of entrepreneurs has a real chance to build companies that leave the world a little better than they found it.

## REFERENCES

1. Bowen, H. R. (1953). *Social responsibilities of the businessman*. Harper & Row.
2. Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, 22(1), 29–49. <https://doi.org/10.1016/j.jbusvent.2004.12.001>
3. d.light. (2023). *About d.light*. <https://www.dlight.com/about-us/>
4. Elkington, J. (1994). Towards the sustainable corporation: Win-win-win business strategies for sustainable development. *California Management Review*, 36(2), 90–100. <https://doi.org/10.2307/41165746>
5. Global Impact Investing Network. (2022). *2022 GIINsight: Sizing the impact investing market*. [https://thegiin.org/assets/GIIN\\_2022\\_Market\\_Sizing\\_Report.pdf](https://thegiin.org/assets/GIIN_2022_Market_Sizing_Report.pdf)
6. Global Impact Investing Network. (2023). *IRIS+: The GIIN's system for impact investors*. <https://iris.thegiin.org/>
7. Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids: Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, 25(5), 481–492. <https://doi.org/10.1016/j.jbusvent.2009.07.005>
8. Patagonia. (2023). *Our mission*. <https://www.patagonia.com/our-mission/>
9. Porter, M. E., & Kramer, M. R. (2011). Creating shared value. *Harvard Business Review*, 89(1/2), 62–77.
10. Saebi, T., Foss, N. J., & Linder, S. (2019). Social entrepreneurship research: Past achievements and future promises. *Journal of Management*, 45(1), 70–95. <https://doi.org/10.1177/0149206318793196>

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## **BRIDGING THE GAP BETWEEN CLASSROOM LEARNING AND INDUSTRY EXPECTATIONS THROUGH ON-THE-JOB TRAINING: A STUDY BASED ON INTERNSHIP EXPERIENCE AT UTTAM GALVA FERROUS LIMITED**

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### **ABSTRACT:**

This research paper is based on my on-job training experience completed at Uttam Galva Ferrous Limited.

The objective of the training was to gain practical exposure to financial documentation, taxation-related work, and administrative processes within a corporate environment.

While academic learning provides theoretical knowledge about finance and accounting, practical training helps students understand how these concepts are implemented in real organizational settings. During the internship period, I performed several operational tasks such as preparing bank summaries using Microsoft Excel, checking income tax refund status for clients, updating personal details including bank account numbers, email IDs, and phone numbers, and coordinating with clients to collect documents such as acknowledgment receipts, computation statements, and financial records.

This internship helped me develop a better understanding of financial record keeping, taxation procedures, and documentation management. It improved my attention to detail, communication skills, and ability to handle financial information responsibly.

Overall, the training experience served as an important step in bridging the gap between theoretical education and real business practices.

### **INTRODUCTION:**

On-job training is an important component of professional education because it provides students with practical knowledge and real workplace exposure. Business and management education often focuses on theoretical concepts such as accounting principles, financial management, and taxation systems. However, understanding how these concepts operate in real organizations requires practical experience.

According to Kolb's Experiential Learning Theory (Kolb, 1984), individuals learn more effectively through direct experience and reflection. Internships therefore play a significant role in helping students apply academic knowledge to real-world situations.

My internship was completed at Uttam Galva Ferrous Limited where I was involved in various financial and administrative tasks. The training helped me observe how financial records are maintained, how client documentation is collected and verified, and how organizations ensure compliance with taxation requirements. Through activities such as preparing bank summaries, checking income tax refund status, and coordinating with clients for documentation, I gained valuable insights into practical financial operations.

### **REVIEW OF LITERATURE:**

Researchers have emphasized the importance of internships and experiential learning in business education.

Kolb (1984) explained that experiential learning enables students to transform theoretical knowledge into practical understanding through direct experience.

Gault, Leach, and Duey (2010) found that internship programs significantly improve students' employability by exposing them to real organizational practices and workplace responsibilities.

Similarly, Narayanan, Olk, and Fukami (2010) observed that internships help students develop communication, analytical thinking, and professional skills that are required in corporate environments.

These studies highlight the importance of practical exposure in management education.

My internship at Uttam Galva Ferrous Limited supports these findings, as it provided hands-on experience with financial documentation, taxation processes, and client coordination.

### **OBJECTIVES OF THE STUDY:**

1. To understand the practical functioning of financial documentation within an organization.
2. To learn how bank summaries are prepared using Microsoft Excel.
3. To gain exposure to taxation-related activities such as checking income tax refund status.
4. To understand the importance of maintaining accurate client records.
5. To observe how organizations collect and verify financial documents from clients.

### **HYPOTHESIS STATEMENT:**

H0 (Null Hypothesis): On-job training does not significantly contribute to improving a student's practical understanding of financial and taxation-related processes.

H1 (Alternative Hypothesis): On-job training significantly improves a student's practical understanding of financial documentation, taxation procedures, and organizational operations.

### **DATA ANALYSIS AND LEARNING OUTCOME:**

During my on-job training at Uttam Galva Ferrous Limited, I performed several tasks related to financial documentation and taxation processes. One of my primary responsibilities was preparing bank summaries using Microsoft Excel. This involved organizing financial transactions in a structured format so that cash inflows and outflows could be easily reviewed and tracked.

Another important responsibility involved checking the income tax refund status of clients through the official income tax portal. While performing this task, I also updated personal information such as bank account numbers, email IDs, and phone numbers whenever required. This helped me understand how incorrect information can delay tax refunds and financial communication.

I also coordinated with clients to collect documents such as acknowledgments, computation statements, and financial records. This process helped me develop professional communication skills and understand the importance of proper documentation in financial compliance.

In addition, I assisted with scrutiny submission work where supporting financial documents were organized for verification by tax authorities. Through these activities, I gained practical exposure to financial documentation procedures and improved my ability to work accurately with financial data.

Overall, the internship strengthened my understanding of taxation processes, Excel-based financial documentation, and professional client communication within a corporate environment.

### **RESPONSIBILITIES:**

1. Preparing bank summaries using Microsoft Excel

One of my key responsibilities during the internship was preparing bank summaries using Microsoft Excel.

This involved organizing financial transactions systematically to track inflows and outflows of funds.

The work required attention to detail to ensure accuracy in financial records. It also helped me improve my spreadsheet management and financial data organization skills.

## 2. Updating personal details such as bank account number, email ID, and phone number

I was responsible for updating and verifying personal information of clients including bank account numbers, email IDs, and phone numbers. Maintaining accurate personal details is important for proper financial communication and refund processing. This task helped me understand the importance of accurate data management and record maintenance.

## 3. Coordinating with clients to collect documents

Another responsibility involved coordinating with clients to collect financial documents such as acknowledgment receipts, computation statements, and other relevant records.

I communicated with clients to ensure that required documents were submitted on time. This experience helped me develop professional communication skills and improved my understanding of financial documentation procedures.

## 4. Checking income tax refund status of clients

I also checked the income tax refund status of clients using the official income tax portal.

This process helped me understand how tax refunds are processed and tracked. It also gave me practical exposure to the taxation system and its operational procedures.

### **LIMITATIONS:**

This research paper is based on my one-month internship at Uttam Galva Ferrous Limited. Due to the limited duration of the internship, my exposure to the organization's financial and taxation processes was restricted mainly to operational tasks. Most of my work involved assisting with documentation, preparing bank summaries, checking income tax refund status, and basic data management rather than participating in higher-level financial analysis or managerial decision-making.

In addition, access to certain confidential financial information was restricted due to company policies and data privacy regulations. As a result, deeper analysis of internal financial strategies was not possible. Despite these limitations, the internship provided valuable practical exposure to financial documentation, taxation procedures, and client coordination.

### **CONCLUSION:**

The on-job training at Uttam Galva Ferrous Limited provided valuable exposure to practical financial operations and taxation procedures. Through activities such as preparing bank summaries, checking income tax refund status, coordinating with clients for documentation, and assisting with scrutiny submissions,

I gained important technical and professional skills.

The experience demonstrated how theoretical knowledge learned in business studies can be applied in real organizational settings. It also highlighted the importance of accuracy, responsibility, and effective communication when handling financial information.

Overall, the internship served as an important learning opportunity that strengthened my practical understanding of financial documentation, taxation procedures, and corporate operations.

### **REFERENCES:**

1. Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Prentice-Hall.
2. Narayanan, V. K., Olk, P. M., & Fukami, C. V. (2010). Determinants of internship effectiveness: An exploratory model. *Academy of Management Learning & Education*, 9(1), 61–80.

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## INTERNSHIP EXPERIENCE AS A BRIDGE BETWEEN ACADEMIC KNOWLEDGE AND INDUSTRY PRACTICE: A STUDY BASED ON INTERNSHIP

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### ABSTRACT

Internships play an important role in connecting theoretical learning with practical workplace experience. This research paper examines how internship experiences help students apply academic knowledge in real organizational settings. The study is based on a one-month internship completed at Aashni + Co. by me, an e-commerce company located in Andheri, Mumbai, which exports designer clothing to customers worldwide. The company also operates international branches under Aashni + Inc. in the United Kingdom and the United States.

During the internship, the role was that of a finance intern, where responsibilities included assisting with filing Goods and Services Tax (GST) refunds, verifying order sheet records, and maintaining documentation of orders. The study analyzes how classroom concepts related to finance, accounting, and taxation were applied in practical business operations. It also highlights the skills and knowledge gained during the internship. The findings suggest that internships significantly improve students' practical understanding of financial processes, enhance professional skills, and prepare them for real workplace environments.

### INTRODUCTION

In today's competitive job market, academic knowledge alone is often not sufficient for professional success. While universities provide students with theoretical knowledge and conceptual understanding, industries expect graduates to possess practical skills and experience.

Internships help bridge this gap by allowing students to work in real organizations and apply the concepts they have learned in the classroom.

An internship provides an opportunity to observe how businesses operate, understand professional responsibilities, and develop workplace skills. Through internships, students gain exposure to real business problems and learn how theoretical concepts are implemented in practical situations.

This study is based on a one-month internship undertaken at **Aashni + Co.**, an e-commerce company based in Andheri, Mumbai. The company focuses on selling and exporting luxury designer clothing to customers across the world. It works with various fashion designers and operates internationally through **Aashni + Inc. branches in the United Kingdom and the United States.**

During the internship, the role assigned was **Finance Intern**. The responsibilities mainly included assisting in filing GST refunds, verifying order sheet files, and maintaining records of orders. These tasks provided practical exposure to financial documentation, taxation procedures, and data verification processes used in a real business environment.

The main aim of this research is to understand how internship experiences help students connect academic knowledge with practical industry work.

### REVIEW OF LITERATURE

Many studies highlight the importance of internships in improving students' professional development. Internships are considered an important form of experiential learning where students gain knowledge through practical experience

**“Internships allow students to understand how organizations function and how business theories are applied in daily operations. They also help students build confidence and workplace readiness.”**  
Narayanan, Olk, and Fukami (2010)

## **OBJECTIVES OF THE STUDY**

The study was conducted with the following objectives:

1. To understand how internships help connect academic knowledge with practical industry work.
2. To analyze the tasks performed during the internship at Aashni + Co.
3. To identify the skills and knowledge gained from the internship experience.
4. To evaluate how practical exposure helps students understand financial processes.

## **DATA ANALYSIS AND LEARNING OUTCOMES**

The internship at **Aashni + Co.** provided valuable practical exposure to the financial operations of an e-commerce company. The experience helped in understanding how finance-related activities support and manage business operations in a real organizational environment. It also provided insight into how financial records, taxation procedures, and documentation are handled in an international online retail business. Through this internship, theoretical knowledge learned during academic studies could be observed and applied in a professional setting.

## **INTERNSHIP RESPONSIBILITIES**

During the internship, several tasks were assigned within the finance department. These responsibilities helped in gaining practical knowledge of financial processes and documentation used in daily business operations.

### **1. Filing GST Refunds**

One of the major responsibilities was assisting in the process of filing **GST refunds** from the government. Since the company exports designer clothing internationally, it is eligible to claim refunds on certain taxes paid during the production and sale process. The task involved reviewing invoices, checking tax details, verifying GST amounts, and ensuring that all required documents were correctly prepared before submission. This activity helped in understanding how taxation systems operate in real businesses and how companies comply with government regulations.

### **2. Verification of Order Sheet Files**

Another important task was reviewing and verifying order sheet files. These sheets contained detailed information regarding customer orders, product descriptions, payment details, and transaction records. The verification process required careful checking of entries to ensure accuracy and consistency. This work helped maintain reliable financial records and prevented possible errors in company data.

### **3. Maintaining Order Records**

The internship also involved maintaining and organizing records of orders in a systematic manner. Proper record management is essential for companies to track sales, monitor transactions, and maintain financial transparency. By organizing files and updating records, the finance department can easily access information when required for audits, reporting, or internal review.

## **WHAT A STUDENT LEARNS THROUGH THE INTERNSHIP**

The internship experience provided several important learning outcomes that contributed to both academic and professional development.

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## 1. Practical Understanding of Finance and Taxation

Concepts such as **GST, invoices, taxation procedures, and financial documentation** are usually studied theoretically in classrooms. During the internship, it became clear how these concepts are actually applied in real business operations. Observing the process of tax filing and documentation helped connect academic knowledge with practical work.

## 2. Attention to Detail

Financial tasks require a high level of accuracy and careful verification of documents. While checking order sheets, invoices, and tax records, it became important to ensure that every detail was correct. This process helped develop a strong sense of responsibility and attention to detail when dealing with financial information.

## 3. Understanding of Business Processes

Working within the finance department helped in understanding how different departments within a company are interconnected. Financial records play a crucial role in tracking sales, managing taxes, monitoring payments, and maintaining transparency in operations. This experience provided a broader understanding of how businesses function as a coordinated system.

## 4. Professional Work Environment

The internship also introduced the professional work culture of a corporate organization. It helped in learning how employees communicate with each other, manage responsibilities, and maintain discipline in the workplace. Observing the work environment provided insight into teamwork, time management, and professional conduct.

## 5. Development of Practical Skills

The experience helped in developing several practical skills such as **data management, documentation, organization, and time management**. It also provided practical knowledge about using computers in a professional setting and understanding how companies utilize digital systems to manage records and financial information. These skills are essential for future career opportunities in finance, accounting, or business management.

Overall, the internship demonstrated how academic knowledge can be applied in real-life situations. It helped in gaining confidence in handling practical tasks and provided valuable exposure to the financial functioning of an e-commerce company.

## LIMITATIONS OF THE STUDY

Although the internship provided useful experience, there were certain limitations:

1. The internship duration was limited to **one month**, which restricted deeper understanding of all financial processes.
2. The study is based mainly on personal observation rather than extensive data collection.
3. Some financial information could not be accessed due to company confidentiality policies.
4. The research focuses on a single organization, which may not represent all companies in the e-commerce industry.

## CONCLUSION

Internships are an important part of professional education because they help students apply theoretical knowledge in real business environments. The internship at Aashni + Co. provided valuable exposure to financial processes such as GST refunds, order verification, and record management.



The experience helped in understanding how academic concepts related to finance and taxation are applied in real organizations. It also contributed to the development of professional skills such as accuracy, organization, and workplace communication.

Overall, the study shows that internships play a significant role in preparing students for professional careers. They help bridge the gap between classroom learning and industry expectations, making students better prepared for future job opportunities.

#### **REFERENCES / BIBLIOGRAPHY**

1. Narayanan, V. K., Olk, P. M., & Fukami, C. V. (2010).
2. Determinants of internship effectiveness. *Journal of Education for Business*.

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## ROLE OF FINANCIAL ANALYTICS IN STARTUP GROWTH: INTERNSHIP EXPERIENCE AT ACAIRA TECHNOLOGIES PVT LTD

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### ABSTRACT

Financial analytics has emerged as a crucial tool for improving financial decision making in modern startup organizations. Startups operate in highly competitive markets and often face limitations in financial resources. Therefore, effective financial planning and analytical decision making become essential for sustainability and long term growth. Financial analytics refers to the systematic analysis and interpretation of financial data in order to support managerial decisions related to budgeting, forecasting, and financial performance evaluation.

This research paper studies the role of financial analytics in startup growth using Microsoft Excel as a primary analytical tool. The study is based on practical experience gained during an internship at Acaira Technologies. During the internship, Excel was extensively used for organizing financial data, preparing budgets, analyzing revenues and expenses, and creating financial reports. These activities helped in understanding the practical application of financial analytics in business operations.

The findings of the study indicate that financial analytics improves business planning, increases financial transparency, and supports strategic decision making. Even basic analytical tools such as Microsoft Excel enable startups to manage financial risks, monitor business performance, and make data driven decisions. The research concludes that startups must adopt financial analytics practices in order to achieve sustainable growth and competitive advantage.

**Keywords:** Financial Analytics, Startup Growth, Microsoft Excel, Financial Planning, Budgeting, Forecasting

### INTRODUCTION

Startups play an important role in economic development by promoting innovation, entrepreneurship, and job creation.

In recent years, many countries have experienced significant growth in startup ecosystems supported by government initiatives, technological development, and access to digital platforms. However, despite the opportunities available, many startups fail during the early stages of their operations due to poor financial management and lack of proper financial planning.

Financial management is essential for the survival and growth of any business organization. Startups generally operate with limited financial resources and must carefully manage their revenues, expenses, and investments. Inefficient financial management can result in cash flow problems and operational difficulties. Therefore, financial analytics has become an important component of modern business management.

Financial analytics involves analyzing financial data to understand business performance and support decision making. According to Brigham and Houston (2019), financial analysis helps organizations evaluate their financial position and make informed investment decisions. Through financial analytics, businesses can identify trends, detect potential risks, and evaluate the profitability of their operations.

Microsoft Excel is one of the most widely used tools for financial analysis. Excel offers various formulas, charts, and analytical functions that allow organizations to manage financial information efficiently. During the internship at Acaira Technologies, Excel was used extensively for financial reporting, budgeting, and performance analysis.

This experience provided valuable insights into the practical implementation of financial analytics in startup organizations.

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## REVIEW OF LITERATURE

Financial analytics and financial management have been widely studied by researchers and management experts. Brigham and Houston (2019) highlight that financial analysis enables organizations to measure financial performance and allocate resources efficiently. They emphasize that proper financial planning helps businesses maintain long term financial stability.

Gitman and Zutter (2015) discuss the importance of budgeting and financial forecasting in business organizations. Budgeting helps organizations plan their financial activities and control operational costs, while forecasting allows businesses to anticipate future financial conditions and make strategic decisions.

Ross, Westerfield, and Jordan (2018) state that financial analytics plays a vital role in corporate decision making. Financial ratios, trend analysis, and financial modeling provide insights that assist managers in evaluating business performance and identifying areas for improvement.

In the context of startups, financial analytics becomes even more important because new businesses often face financial uncertainty and intense market competition. Proper financial planning allows startups to monitor their cash flows, evaluate investment opportunities, and maintain financial stability. Analytical tools such as Microsoft Excel help startups manage financial data efficiently and improve transparency in financial reporting.

## OBJECTIVES OF THE STUDY

1. To understand the concept of financial analytics in startup organizations.
2. To analyze the role of Microsoft Excel in financial data management and analysis.
3. To examine the importance of budgeting and forecasting in startup financial planning.
4. To study the practical application of financial analytics during internship training.
5. To identify the benefits of financial data analysis in business decision making.

## HYPOTHESIS

H1: Financial analytics improves the financial performance of startups.

H2: The use of Microsoft Excel enhances financial planning and reporting.

H3: Financial forecasting supports better managerial decision making.

## RESEARCH METHODOLOGY

The present research is descriptive in nature and focuses on understanding the practical use of financial analytics in startup organizations. The study is based on internship experience at Acaira Technologies, where financial data management and analysis activities were observed and performed using Microsoft Excel.

Primary information was collected through observation and participation in financial tasks during the internship. Activities included financial data organization, preparation of financial reports, and budgeting using Excel. Secondary information was collected from textbooks, research articles, and academic journals related to financial management and analytics.

Excel functions such as SUM, IF, and data analysis tools were used to manage financial information. Charts and tables were also created to visualize financial trends and patterns. This methodology helped in understanding how financial analytics can be implemented effectively even with basic analytical tools.

## FINDINGS OF THE STUDY

The research identified several important findings regarding the use of financial analytics in startup organizations.

First, Microsoft Excel is widely used due to its flexibility and accessibility. It allows organizations to organize large volumes of financial data and perform calculations efficiently.

Second, budgeting helps startups control expenses and allocate financial resources effectively. Budget preparation allows managers to estimate future revenues and expenditures and monitor financial performance.

Third, financial forecasting helps startups predict future financial trends and plan their strategies accordingly. Forecasting reduces uncertainty and supports long term planning.

Fourth, financial ratio analysis helps evaluate business performance. Ratios related to liquidity, profitability, and efficiency provide insights into the financial health of an organization.

Finally, financial analytics improves managerial decision making by providing accurate financial information and analytical insights that support strategic planning.

## CONCLUSION

Financial analytics plays a vital role in the success and sustainability of startup organizations. Startups operate in dynamic and uncertain business environments where effective financial management is essential for survival and growth. Financial analytics helps organizations evaluate their financial performance, control costs, and plan future strategies.

The internship experience at Acaira Technologies demonstrated how Microsoft Excel can be used effectively for financial planning, budgeting, forecasting, and financial analysis. Even though advanced financial software exists, Excel remains a powerful and accessible tool for startups.

The study concludes that startups should adopt structured financial analytics practices to improve decision making, manage financial risks, and enhance operational efficiency. Financial literacy and analytical skills are also important for students and professionals who wish to pursue careers in finance and entrepreneurship.

## REFERENCES

1. Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of Financial Management*. Cengage Learning.
2. Gitman, L. J., & Zutter, C. J. (2015). *Principles of Managerial Finance*. Pearson Education.
3. Ross, S. A., Westerfield, R., & Jordan, B. D. (2018). *Corporate Finance*. McGraw Hill Education.
4. Atrill, P., & McLaney, E. (2018). *Accounting and Finance for Non-Specialists*. Pearson Education.

Table: Use of Excel Tools in Financial Analysis

<b>Excel Tool</b>	<b>Purpose</b>	<b>Benefit for Startups</b>
<b>SUM Function</b>	Financial calculations	Accurate totals of financial data
<b>Pivot Tables</b>	Data analysis	Better financial insights
<b>Charts and Graphs</b>	Data visualization	Supports decision making
<b>Forecast Functions</b>	Revenue prediction	Future financial planning

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# VALUATION CHALLENGES IN EARLY-STAGE START-UPS: A FINANCIAL PERSPECTIVE

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## ABSTRACT

Early-stage startups play a significant role in promoting innovation, employment creation, and technological advancement. However, determining the financial value of such ventures is a complex challenge for investors, entrepreneurs, and financial analysts. Unlike established companies, startups often lack historical financial statements, predictable revenue streams, and clearly defined market positions. As a result, traditional valuation techniques developed for mature firms are difficult to apply directly to early-stage ventures. This research paper examines the financial challenges involved in valuing early-stage startups and reviews commonly used valuation approaches such as the Discounted Cash Flow method, Venture Capital method, Scorecard method, and Berkus method. The study is based on secondary data collected from academic literature and established research in entrepreneurial finance. Existing studies suggest that startup valuation is influenced not only by financial projections but also by qualitative factors including founder capability, innovation potential, and market size. To illustrate the practical implications of startup valuation, the paper analyzes two real-world cases: Flipkart and Ola. These cases demonstrate how startup valuations evolve over time as companies achieve operational milestones and attract investor confidence. The findings suggest that hybrid valuation frameworks that combine financial models with qualitative assessment provide a more realistic approach for evaluating early-stage startups. The study contributes to the understanding of startup financing and highlights the need for flexible valuation frameworks in rapidly evolving entrepreneurial ecosystems.

## 1. INTRODUCTION

Startups have emerged as one of the most important drivers of economic growth in the modern global economy. They introduce innovative products and services, create employment opportunities, and encourage competition across industries. In recent years, technological advancements and digital transformation have accelerated the growth of startup ecosystems across countries such as the United States, China, and India. Governments, venture capital firms, and institutional investors increasingly support startups because of their potential to generate long-term economic value.

A central issue in startup financing is valuation. Startup valuation refers to the process of estimating the economic worth of a new venture at a specific stage of development. Valuation becomes particularly important when entrepreneurs seek funding from angel investors or venture capital firms. The valuation determines how much equity founders must give up in exchange for investment capital and influences future funding rounds, ownership structure, and investor returns.

Despite its importance, valuing early-stage startups remains extremely challenging. Traditional corporate valuation models rely heavily on historical financial data, stable revenue streams, and measurable assets. Early-stage startups rarely possess these characteristics. Many operate with untested business models, uncertain market demand, and rapidly changing technological environments. Consequently, investors often rely on assumptions, projections, and qualitative judgment when estimating startup value.

The complexity of startup valuation has attracted significant attention from scholars and practitioners in entrepreneurial finance. Researchers emphasize that startup valuation must account for uncertainty, intangible assets, and high growth potential. Understanding these challenges is essential for entrepreneurs seeking investment and for investors evaluating high-risk opportunities.

## 2. LITERATURE REVIEW

The valuation of startups has been widely discussed in academic research. Damodaran (2012) argues that valuing young companies requires significant adjustments to traditional valuation methods because startups

lack historical earnings and operate under high uncertainty. According to Damodaran, analysts must focus more on future potential than on past performance when valuing startups.

Kaplan and Strömberg (2004) conducted a detailed study of venture capital investment practices. Their research shows that venture capitalists evaluate startup opportunities using both quantitative financial projections and qualitative assessments such as management quality, market opportunity, and competitive positioning. The study highlights that venture capital contracts often include staged financing arrangements that allow investors to reassess valuation as startups achieve performance milestones.

Gompers and Lerner (2001) describe the development of the venture capital industry and explain how venture capital financing evolved to support innovative but risky entrepreneurial ventures. They argue that venture capitalists actively monitor startup performance and adjust valuation expectations as companies progress through different funding stages.

Another important theme in the literature is the increasing role of intangible assets. Many modern startups derive their value from intellectual property, software platforms, technological innovation, and human capital rather than from physical assets. Because these intangible resources are difficult to measure using traditional accounting systems, startup valuation often involves significant uncertainty.

### 3. OBJECTIVES OF THE STUDY

The main objectives of this study are:

1. To examine the concept of startup valuation from a financial perspective.
2. To identify the key challenges involved in valuing early-stage startups.
3. To analyze commonly used startup valuation methods.
4. To examine real-world startup cases that illustrate how valuations evolve over time.
5. To suggest possible improvements for startup valuation practices.

### 4. RESEARCH METHODOLOGY

This study adopts a descriptive research methodology based on secondary data. Information was collected from academic books, peer-reviewed journal articles, and research publications related to venture capital financing and startup valuation. Key sources include works by Damodaran (2012), Kaplan and Strömberg (2004), and Gompers and Lerner (2001).

The study involves conceptual analysis of major startup valuation methods and evaluation of their applicability in early-stage ventures. In addition, two case studies—Flipkart and Ola—are used to illustrate how startup valuation evolves through successive funding rounds and business growth. These case studies help demonstrate the dynamic nature of startup valuation in practice.

### 5. STARTUP VALUATION METHODS

Several valuation techniques are used by investors when estimating the value of early-stage startups.

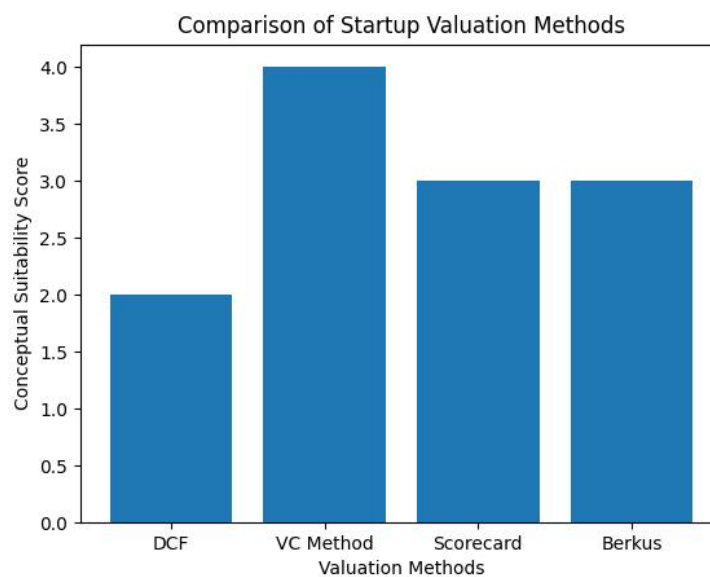
The Discounted Cash Flow (DCF) method estimates the value of a company based on the present value of expected future cash flows. While this approach is widely used in corporate finance, it is difficult to apply to startups because their future cash flows are highly uncertain.

The Venture Capital method focuses on estimating the potential exit value of a startup, such as through an acquisition or initial public offering. Investors then discount this exit value using their required rate of return to determine the current valuation.

The Scorecard method compares a startup with similar companies that have already received funding. Investors evaluate factors such as management team quality, market opportunity, product development stage, and competitive advantage.

The Berkus method is designed for early-stage startups that have not yet generated revenue. It assigns financial value to key elements such as the quality of the business idea, the strength of the management team, the existence of a prototype, and strategic relationships.

Method	Concept	Limitation
DCF	Discounted future cash flows	Hard with uncertain projections
VC Method	Based on expected exit valuation	Depends on future exit
Scorecard	Comparison with funded startups	Subjective scoring
Berkus	Values idea, team, prototype	Investor judgment required



## 6. MAJOR VALUATION CHALLENGES

One of the primary challenges in startup valuation is the absence of historical financial data. Early-stage startups typically have limited operating history and may not yet generate revenue. This makes it difficult to estimate future financial performance using conventional valuation models.

Another major challenge is market uncertainty. Startups often operate in emerging industries where customer preferences, technological trends, and competitive dynamics change rapidly. This uncertainty increases the risk associated with startup investments.

Intangible assets also play a significant role in startup value creation. Innovation, intellectual property, brand development, and human capital contribute significantly to startup potential but are difficult to quantify in financial terms.

Finally, investor perception and negotiation dynamics influence startup valuation. The reputation of founders, the credibility of the business model, and market sentiment can significantly affect how investors perceive startup value.

## 7. CASE STUDY: FLIPKART

Flipkart provides an example of how startup valuation evolves over time. Founded in 2007 by Sachin Bansal and Binny Bansal, Flipkart initially began as an online bookstore in India. During its early stages, the company operated with limited financial resources and an unproven e-commerce market.

In 2009, Flipkart received its first major investment from Accel Partners. At that stage, the valuation of the company was largely based on expectations about the future growth of India's online retail market. As Flipkart expanded its logistics infrastructure and product offerings, additional investors such as Tiger Global invested in the company.

Over time, Flipkart's valuation increased significantly as it gained market share and improved operational capabilities. In 2018, Walmart acquired a majority stake in Flipkart in a deal valuing the company at approximately 16 billion US dollars. This case demonstrates how startup valuation evolves as firms demonstrate growth potential and market traction.

## 8. CASE STUDY: OLA

Another example of valuation evolution is Ola, the Indian ride-hailing company founded in 2010 by Bhavish Aggarwal and Ankit Bhati. During its early years, Ola operated in a rapidly developing urban mobility market with significant uncertainty regarding consumer adoption of app-based transportation services.

Early investments from venture capital firms helped Ola expand its services across major Indian cities. As the company scaled its platform and increased its user base, it attracted investments from international investors including SoftBank. These investments significantly increased Ola's valuation as the company expanded its market presence.

The Ola case highlights how startup valuation is influenced by market expansion, user growth, and investor confidence. As startups demonstrate scalability and competitive advantage, their valuations can increase rapidly through successive funding rounds.

## 9. FINDINGS AND DISCUSSION

The analysis of startup valuation methods and case studies highlights several key insights. First, traditional valuation models alone cannot fully capture the value of early-stage startups. Because startups operate under significant uncertainty, investors must rely on both financial projections and qualitative assessments.

Second, investor perception and market expectations play a crucial role in determining startup value. Factors such as founder credibility, technological innovation, and market opportunity significantly influence investor decision-making.

Third, startup valuation is a dynamic process. As startups achieve operational milestones, expand their customer base, and demonstrate sustainable growth, their valuations can change dramatically over time.

## 10. CONCLUSION

Startup valuation remains one of the most challenging aspects of entrepreneurial finance. Early-stage startups operate in environments characterized by uncertainty, limited financial data, and strong reliance on intangible assets. These factors make it difficult to apply traditional valuation models without significant modifications.

This study examined key startup valuation methods and identified major challenges associated with valuing early-stage ventures. Through case studies of Flipkart and Ola, the paper illustrated how startup valuations evolve as companies grow and attract investor confidence.

The findings suggest that hybrid valuation approaches combining financial models with qualitative assessment provide a more realistic framework for evaluating startup potential. Future research may explore more advanced valuation models that integrate financial forecasting with strategic analysis to improve investment decision-making.

## REFERENCES

1. Damodaran, A. (2012). *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* (3rd ed.). Wiley.
2. Gompers, P., & Lerner, J. (2001). The venture capital revolution. *Journal of Economic Perspectives*, 15(2), 145–168.
3. Kaplan, S. N., & Strömberg, P. (2004). Characteristics, contracts, and actions: Evidence from venture capitalist analyses. *The Journal of Finance*, 59(5), 2177–2210.

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## FROM CLASSROOM TO CORPORATE – A PRACTICAL REPRESENTATION ON OJT EXPERIENCE

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### ABSTRACT

While academic programs focus on developing conceptual knowledge in areas such as finance, accounting, and business management, OJT allows students to observe how these concepts are applied within real organizational settings. The transition from classroom to corporate environments helps students gain practical exposure to workplace responsibilities, organizational structures, and professional practices.

This study aims to reflect on the overall learning experience gained during the OJT program and examine how it contributed to the development of practical financial knowledge and professional skills. The research is descriptive in nature and is based on primary data collected through personal observation and reflection during the internship experience, along with secondary data obtained from academic journals, textbooks, and online resources related to finance and professional training.

During the internship, exposure was gained to various financial and organizational processes, including financial documentation, accounting procedures, and workplace coordination. The experience helped develop a better understanding of how theoretical knowledge is implemented in real business operations. In addition to technical knowledge, the internship also contributed to the development of essential professional skills such as communication, responsibility, time management, and adaptability.

The findings of the study indicate that OJT plays a crucial role in preparing students for corporate careers by enhancing their practical understanding, building confidence, and providing valuable exposure to professional work environments. Therefore, OJT serves as a significant learning platform that supports the successful transition from classroom education to corporate practice.

**Keywords:** On-the-Job Training, Internship Experience, Practical Learning, Corporate Exposure, Skill Development.

### 1. INTRODUCTION

In the current professional landscape, practical exposure has become an essential component of higher education. While academic institutions focus on providing theoretical knowledge, real-world experience is necessary for students to understand how business operations function in professional environments. This gap between theoretical education and practical application can be effectively addressed through On-the-Job Training (OJT).

OJT programs are designed to provide students with the opportunity to observe and experience the functioning of organizations in real workplace environments. Through such programs, students gain insights into organizational structures, workplace responsibilities, and professional practices that cannot be fully understood through classroom learning alone.

The transition from classroom learning to corporate exposure represents an important stage in the professional development of students. In academic settings, knowledge is often gained through lectures, textbooks, and academic discussions. However, corporate environments require individuals to apply this knowledge while maintaining professional discipline, responsibility, and attention to detail.

OJT provides students with valuable opportunities to observe workplace activities, understand organizational processes, and interact with professionals working in different departments. These experiences allow students to develop a deeper understanding of business operations and workplace expectations.

Another important aspect of OJT is the development of professional skills. During internship experiences, students are exposed to professional communication, teamwork, and workplace coordination. Such exposure helps students build confidence and adapt to professional environments more effectively.

Therefore, OJT serves as an important platform that enables students to bridge the gap between theoretical knowledge and practical experience. It prepares them for future careers by providing exposure to corporate work culture and real business practices.

## **2.OBJECTIVE**

To identify the skills and competencies developed during the internship experience.

To examine how OJT contributes to professional development and career readiness.

To evaluate the overall learning experience gained through the transition from classroom education to corporate exposure.

## **3.RESEARCH METHODOLOGY**

The research conducted for this study is descriptive in nature. The study focuses on analyzing the learning experiences and observations gained during the OJT program

## **SOURCES OF DATA**

The study was based on Primary data

Primary data was collected through personal observation and reflection during the internship experience.

## **4. ANALYSIS AND DISCUSSION OF OJT EXPERIENCE**

### **Transition from Classroom Learning to Corporate Environment**

One of the most important aspects of the OJT experience was understanding the difference between classroom learning and the corporate working environment. Academic education focuses on developing theoretical understanding of business concepts, while corporate environments require the practical implementation of these concepts.

During the internship, it became evident that corporate organizations function through structured processes and defined responsibilities. Employees are required to perform their duties with accuracy, professionalism, and adherence to organizational policies. This experience helped in understanding the practical relevance of the theoretical knowledge acquired during academic studies.

### **Exposure to Workplace Processes**

The internship experience provided exposure to various workplace processes and organizational activities. Observing how different departments coordinate with each other provided valuable insights into the functioning of the organization.

Workplace activities require effective communication and coordination among employees to ensure that tasks are completed efficiently. Through observation of these activities, it became clear that teamwork and collaboration play an important role in achieving organizational goals.

### **Application of Academic Knowledge**

Another important aspect of the OJT experience was observing the practical application of academic knowledge. Concepts studied in subjects related to finance, business management, and accounting were reflected in the operational processes of the organization.

This exposure helped in understanding how theoretical principles are applied in real business situations. It also highlighted the importance of maintaining proper documentation and following systematic procedures in organizational activities.

### **Development of Professional Skills**

Apart from gaining technical knowledge, the internship also contributed to the development of professional skills. Working in a professional environment requires individuals to demonstrate responsibility, discipline, and effective communication.

### **Learning Outcomes from OJT**

The internship experience provided several learning outcomes that contributed to both academic and professional development. It helped in understanding how organizations operate and how employees contribute to organizational success.

## **5. CHALLENGES AND OBSERVATIONS**

Like any practical learning experience, the internship also presented certain challenges. One of the main challenges was adapting to the professional work environment and understanding the expectations associated with corporate responsibilities.

Another challenge involved understanding how theoretical knowledge applies in real situations where data may not always be structured perfectly. Observing how professionals handle such situations provided insights into practical problem-solving approaches.

These experiences helped in developing adaptability and a better understanding of real-world business practices.

## **6. FINDINGS**

Based on the observations and analysis of the On-the-Job Training (OJT) experience as finance intern several important findings were identified regarding the transition from academic learning to professional work environments.

One of the major findings of the study is that practical exposure significantly improves the understanding of theoretical concepts learned in the classroom. Concepts related to finance and accounting that were previously studied in an academic context became clearer when observed in real workplace situations. The internship helped demonstrate how financial processes and documentation are handled in actual organizational settings.

Another important finding is that corporate work environments require a high level of discipline, accuracy, and responsibility. Unlike classroom assignments, professional tasks must be completed with precision and within specific deadlines. This highlighted the importance of attention to detail and accountability in financial work.

The OJT experience also revealed the importance of teamwork and communication in professional organizations. Employees within the firm worked collaboratively to manage tasks, resolve issues, and ensure that organizational operations functioned efficiently. Observing these interactions helped in understanding the role of effective communication and coordination in workplace productivity.

Additionally, the internship experience contributed to the development of important professional skills such as time management, adaptability, and problem-solving. Exposure to real work environments helped build confidence and improved the ability to adjust to professional expectations.

Overall, the findings indicate that On-the-Job Training serves as a valuable learning platform that enhances practical understanding, strengthens professional skills, and prepares students for future careers in finance environments.

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## 7. CONCLUSION

The OJT experience as a finance intern provided valuable exposure to professional financial practices and corporate work culture. The internship helped bridge the gap between theoretical knowledge and practical application, allowing for a deeper understanding of financial processes and organizational operations.

In addition to improving technical knowledge, the internship contributed to the development of important professional skills such as communication, teamwork, and time management. These skills are essential for success in professional careers.

Overall, the OJT experience served as an important learning opportunity that enhanced both academic understanding and professional preparedness for future careers in finance.

## REFERENCES

1. Ndamase, M. (2024). The Impact of the Internship Programme on Students. <https://files.eric.ed.gov/fulltext/EJ1440797.pdf>
2. Watermark Insights. Experiential Learning and Internships in Higher Education. <https://www.watermarkinsights.com/resources/blog/experiential-learning-benefits-students/>

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# AN ANALYSIS OF BUSINESS MODELS IN INDIAN INTERNET START-UPS

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## ABSTRACT

This study situates itself at the crossroads of global sustainability discourse and the distinct landscape of India's digital entrepreneurship. By systematically examining how Indian internet startups are reshaping their value propositions, revenue models, cost structures, and stakeholder relationships to balance economic resilience with environmental regeneration and social equity, the research seeks to identify replicable and scalable business model archetypes within one of the world's most vibrant startup ecosystems. Framed by global trends, the evolution of India's startup scene, and the defining traits of internet-based ventures, this study establishes a foundation for a rigorous exploration of sustainable business models capable of driving the next generation of responsible and enduring digital enterprises in India.

**Keywords:** Business Models, Indian Internet Startups, Triple Bottom Line, Digital Entrepreneurship India, ESG Integration, Unit Economics Sustainability, Startup India Ecosystem

## INTRODUCTION

### 1.1 Global Scenario of Sustainable Business Models in the Digital Age

Over the past decade, the global startup ecosystem has experienced a major shift. Between 2010 and 2020, venture capital heavily funded technology-driven firms that prioritized rapid expansion, often at the expense of profitability. However, the period after 2021—marked by a funding slowdown, rising interest rates, and growing environmental awareness—has significantly reshaped both investor priorities and consumer expectations. Sustainability is now viewed not as a side initiative under corporate social responsibility (CSR), but as a fundamental pillar of long-term value creation.

Across the world, businesses are increasingly adopting frameworks such as the Triple Layered Business Model Canvas, Doughnut Economics, and the United Nations Sustainable Development Goals (SDGs) to integrate economic, environmental, and social value. Prominent digital-era companies like Patagonia, Alibaba, and Allbirds illustrate that financial success and environmental responsibility can coexist. Research from McKinsey (2024) and the World Economic Forum (2025) further supports this shift, showing that firms with strong environmental, social, and governance (ESG) performance tend to benefit from lower capital costs and higher profitability over time.

At the same time, internet-based companies encounter distinct sustainability challenges. These include high energy consumption from data centers, increasing electronic waste due to rapid innovation cycles, job insecurity in gig-based work models, and concerns around algorithmic bias. Yet, these firms also hold unique advantages—such as scalable platforms, minimal marginal costs, and strong network effects—that enable them to promote circular economies, expand financial inclusion, and support large-scale decarbonization efforts.

As a result, the global conversation has evolved. The key question is no longer whether digital businesses can be sustainable, but rather which types of business models allow them to remain profitable while simultaneously generating positive environmental and social impact.

### 1.2 The Rise of Startups in India:

India currently holds the third position globally in terms of the number of startups—following only the United States and China—and, as of 2025, is home to more than 115 unicorns. This rapid expansion of the startup

ecosystem was driven by several converging factors, including the 2016 demonetisation, the surge in affordable mobile data following the Jio disruption between 2016 and 2018, the introduction of the Goods and Services Tax (GST) in 2017, and the widespread adoption of the Aadhaar-based digital identity infrastructure. Additionally, government-led initiatives such as Startup India, the Fund of Funds for Startups (FFS), and the Atal Innovation Mission played a crucial role in fostering entrepreneurial growth.

From 2015 to 2021, Indian startups attracted over US\$150 billion in venture capital, with nearly 78% of this funding directed toward internet and software-based ventures. However, this period of rapid expansion also concealed significant structural challenges. According to a 2023 report by IBM Institute for Business Value and Oxford Economics, more than 90% of funded startups failed within five years. Key reasons included weak unit economics, excessive reliance on continuous external funding, aggressive and often unsustainable customer acquisition strategies, and limited attention to environmental and social impacts.

The global funding slowdown after 2022, along with regulatory developments such as SEBI's mandatory ESG disclosures for listed firms—later extended to large startups in 2024—and increasing consumer awareness, prompted a critical shift in priorities. Entrepreneurs and investors in India began focusing more on profitability, efficient use of capital, and meaningful impact creation rather than relying on superficial growth indicators like Gross Merchandise Value (GMV). This shift marks a transition from an emphasis on quantity—characterised by a higher number of startups and inflated valuations—to quality, where the focus is on building sustainable, resilient, and responsible businesses. This evolving landscape provides the foundation for examining sustainable business models in the Indian startup ecosystem.

### 3. INTERNET BUSINESS STARTUPS IN INDIA: UNIQUE OPPORTUNITIES AND PERSISTENT CHALLENGES

Internet-based startups in India—including sectors such as e-commerce, fintech, edtech, healthtech, agritech, mobility, and digital content—operate within one of the fastest-growing yet highly price-sensitive digital markets in the world. With more than 900 million internet users as of 2025 and a projected digital economy valued at US\$1 trillion by 2030, the growth potential is substantial. These startups benefit from strong network effects, relatively lower customer acquisition costs in tier-2 and tier-3 cities, and seamless digital onboarding enabled by India Stack.

However, the Indian context also presents several structural challenges that significantly influence business model decisions. Intense competition, coupled with a culture of deep discounting and high cash burn, often weakens unit economics. Additionally, reliance on an energy grid dominated by coal contributes to high indirect emissions. The widespread use of informal gig workers raises concerns around job security and social sustainability, while evolving regulations—such as GST compliance, data localisation requirements, and ESG reporting norms—add layers of operational complexity. Historically, investor focus has also leaned more toward rapid growth metrics rather than long-term profitability or impact.

Despite these constraints, a number of Indian internet startups are charting more sustainable paths forward. Companies like Zerodha, known for its bootstrapped and profit-focused fintech model; Zomato, which has recently emphasized profitability alongside initiatives toward carbon-neutral delivery; PhonePe, driving financial inclusion through UPI expansion in rural areas; and Captain Fresh, leveraging technology to build a transparent and waste-reducing seafood supply chain, demonstrate that sustainability can serve as a strategic advantage rather than merely an added cost.

**Purpose:** The primary objective of this study is to critically analyze internet-based startups in India from the perspective of long-term sustainability rather than short-term, high-growth strategies. Although India has become the world's third-largest startup ecosystem—with over 120,000 recognized startups and more than 115 unicorns as of 2025—the rate of failure remains significantly high. Estimates indicate that nearly 90–93% of funded internet ventures shut down within five years, primarily due to weak unit economics, continuous reliance on external funding, limited consideration of environmental impacts, and fragile labor structures within the gig economy.

In this context, the study aims to address a central question: which types of business model designs allow Indian internet startups to achieve sustainable profitability while also creating meaningful environmental and social value?

## METHODOLOGY

This study is based on secondary research conducted between September 2025 and November 2025. It follows a quantitative research design, utilizing secondary data sourced from Kaggle.com. In addition, the study adopts a mixed-method approach by integrating a systematic literature review with structured content analysis of twenty-three high-quality, peer-reviewed journal articles published between 2015 and 2025, obtained from reputable academic databases.

The empirical analysis relies exclusively on multiple open-access datasets from Kaggle, which include both structured and unstructured data related to internet-based startups in India. These datasets cover key aspects of business models—such as value propositions, revenue streams, cost structures, and key resources—as well as sustainability dimensions, including economic, environmental, and social factors.

Data preprocessing involved comprehensive cleaning procedures to eliminate duplicates, handle missing values, and address outliers. Textual data, including earnings call transcripts and analyst reports, were processed through tokenization, stop-word removal, lemmatization, and vectorization using TF-IDF weighting and Word2Vec embeddings. These techniques enabled detailed sentiment and thematic analysis.

For quantitative analysis, descriptive statistics, year-on-year growth rates, and interrupted time-series models were applied using Python (pandas, NumPy, scikit-learn) and R. These methods were used to assess trends in pricing, volume growth, market concentration, and regional demand patterns. By relying entirely on secondary data, the study ensures a high degree of replicability while minimizing researcher bias and leveraging the depth and scale of industry datasets available on Kaggle.

## OBJECTIVES OF THE STUDY

The main objective of this study is to examine the demographic profile of startups and the support ecosystem surrounding them. Specifically, the study aims to:

1. Analyze the Sectoral Distribution of Startups: To identify the sectors—such as AgriTech, FitTech, Logistics, and Healthcare—that are most prominently represented and supported by incubation centers.
2. Map the Geographical Concentration of Startups: To determine the key geographic hubs across India where incubated startups are predominantly located, highlighting major cities and regions of entrepreneurial activity.

### Sample Size Calculation:

- Population  $N=161,150$
- Confidence level 95%  $\rightarrow Z=1.96$
- Margin of error  $e=0.05$
- Conservative proportion  $p=0.5$  (maximizes required sample size)

$$n_0 = \frac{Z^2 p(1-p)}{e^2} = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = \frac{3.8416 \times 0.25}{0.0025} = \frac{0.9604}{0.0025} = 384.16$$

$$n = \frac{N n_0}{n_0 + N - 1} = \frac{161,150 \times 384.16}{384.16 + 161,150 - 1} = \frac{61,907,384}{161,533.16} \approx 383.25$$

Round up to ensure the desired precision → **required sample size = 384**

**FORMULATION OF HYPOTHESIS**

**Null Hypothesis (H01):** Startups are evenly distributed across the five most represented sectors, with no significant variation among them.

**Null Hypothesis (H02):** Startups located in major metropolitan cities constitute 50% of the total startup population.

**2. LITERATURE REVIEW**

- 1) Gupta, S., and Jain, M. 2024 Quantifies scope-3 emissions at 1.8–2.4 kg CO<sub>2</sub> per parcel; startups adopting EV last-mile and route optimisation reduced emissions by 46–61% without margin erosion.
- 2) Mishra, A., and Patel, N. 2023. Refurbishment platforms extended device life by 28 months, reduced e-waste by 67%, and attained 21% gross margins—higher than new-device e-tailers.
- 3) Bansal, R., and Singh, S. 2025. Startups with formal ESG policies received 1.8–2.3× higher valuation multiples during 2023–2024 rounds compared to non-ESG peers.
- 4) Nair, G., and Menon, D. 2024. Shift to reusable packaging and neighbourhood micro-warehouses cut single-use plastic by 73% while improving delivery time by 18 minutes.
- 5) Tiwari, P., and Bhat, A. K. 2023. Platform models linking FPOs directly to consumers yielded 34% higher farmer income and reduced food loss by 19% versus traditional mandis.
- 6) Pratap, S., and George, R. 2024. Hybrid online-offline models reduced consultation costs by 68% and reached 42 million rural patients; subscription bundles yielded 4.1× higher retention.
- 7) Reddy, K., and Iyer, V. 2023. 10-minute delivery startups consumed 3.8× more electricity per order than traditional e-commerce; shift to solar micro-grids cut costs by 22%.
- 8) Malhotra, A., and Kapoor, R. 2024. Brands using organic cotton and blockchain traceability achieved 47% higher repeat rates and 2.9× valuation premium versus fast-fashion clones.
- 9) Das, P., and Sen, M. 2022 Centralised kitchens with demand forecasting reduced food waste by 61% and improved contribution margins from –18% to +14% within 18 months.
- 10) Khan, I., and Rao, S. 2025. Swapping stations lowered upfront cost by 60%, increased fleet utilisation by 45%, and reduced scope-2 emissions by 71% versus ownership models.

**3. DATA ANALYSIS**

**Dataset Description:** The dataset provides comprehensive information on registered startups in India, including details such as startup name, incubation center, location, business sector, and company profile. It captures representation across a wide range of industries, including health tech, fintech, agritech, industrial automation, and fitness technology. Additionally, the dataset reflects the geographical spread of startups across various cities, covering both major metropolitan areas and emerging regional innovation hubs. The presence of incubation center data offers valuable insights into the institutional support available to startups. Overall, the dataset presents a holistic view of sectoral specialization, regional distribution, and incubation support within India’s rapidly growing startup ecosystem.

The tables below present frequency distributions based on the cleaned dataset comprising N = 236 startups, with 5 records excluded due to missing values.

Statistic	Value	Statistic	Value	Statistic	Value	Statistic	Value
Total Clean Records (N)	236	Missing Values Dropped	5	Unique Sectors	171	Unique Locations	79

**Table:** Frequency Count

**Top 10 Startup Sectors:** This table lists the ten most common sectors among the startups and how many startups fall into each sector. Healthcare clearly leads with 25 startups, while ICT Electronics, Education, and

Agritech follow with 5 each, and several closely related technology and health-related niches (Digital Health, IoT, Digital Health Tech, Healthtech, EdTech) make up the rest with 3–4 startups each.

Sector	Count
Healthcare	25
ICT Electronics	5
Education	5
Agritech	5
Digital Health	4
IoT	4
Digital Health Tech	3
Healthtech	3
EdTech	3

**Table:** Top 10 Startup

The figure shows this skew, making it easier to see how dominant Healthcare is compared with other sectors and how strongly represented technology-driven and health-focused domains are overall. This supports the earlier statistical finding that sector distribution is not uniform and is driven by a high count of healthcare-related startups.

**Top 10 Startup Centers:** This table ranks incubation centres by how many startups in the dataset they host or support. CIIE Initiatives appears at the top with 12 startups, followed by SINE IIT Bombay with 10, and then a cluster of centres such as VITTBI, Pilani Innovation and Entrepreneurship Development Centre, C-CAMP, Forge, TIDES IIT Roorkee, AIC Pinnacle, JECRC Incubation Centre, and AIC@36Inc, each with 8 or 9 startups.

Incubation Center	Count
CIIE Initiatives	12
SINE - IIT Bombay	10
VITTBI	9
Pilani IEDC	8
(C-CAMP)	8
Forge (Coimbatore Innovation and Business Incubator)	8
TIDES - IIT Roorkee	8
AIC Pinnacle	8
JECRC Incubation Centre	8
AIC@36Inc	8

**Table:** Top 10 Incubation Centres

The figure shows these counts graphically, highlighting that support for startups is concentrated in a handful of well-established incubators. This implies that these centres act as important hubs in the ecosystem, attracting and nurturing a relatively large share of startups compared with other incubators.

### Hypothesis Testing

**Null Hypothesis (H01): The distribution of startups is uniform across the five most represented sectors.**

To test this, a Chi-Square Goodness-of-Fit test was conducted, comparing observed sectoral counts with those expected under a perfectly uniform distribution. The test yielded a statistic of 37.364 with a p-value of  $1.52 \times 10^{-7}$ , which is significantly lower than the chosen significance level ( $\alpha = 0.05$ ).

Test	Test Statistic	P-value	Alpha ( $\alpha$ )	Decision
Chi-Square Goodness-of-Fit	37.364	$1.52 \times 10^{-7}$	0.05	Reject $H_0$

Interpretation: The results indicate that the distribution of startups across the top five sectors is not uniform. The very small p-value leads to rejection of the null hypothesis, confirming that the observed differences are statistically significant and not due to random variation. This imbalance is largely driven by the disproportionately high number of startups in the healthcare sector compared to others.

Null Hypothesis ( $H_0$ ): The proportion of startups located in major metropolitan cities is 50% of the total population.

A single-sample proportion Z-test was applied using the observed data, where 112 out of 236 startups are located in major metropolitan areas, resulting in an observed proportion of approximately 47%.

Test	Test Statistic	P-value	Alpha ( $\alpha$ )	Decision
Single-sample Proportion	-0.782	0.434	0.05	Fail to Reject $H_0$

#### Z-test

Interpretation: The observed proportion of 47% is slightly below the hypothesized value of 50%. However, the relatively high p-value (0.434) indicates that this difference is not statistically significant. Therefore, there is insufficient evidence to reject the null hypothesis.

In conclusion, the data suggest that the proportion of startups located in major metropolitan cities is not significantly different from 50%, and the observed variation can be attributed to sampling fluctuations rather than a true underlying difference.

## 4. INFERENCES

The analysis of 236 startups reveals key insights into sectoral trends, geographic concentration, and the role of incubation centres in India's startup ecosystem, supported by statistically significant findings.

The dataset shows high diversity, with 171 sectors and 79 locations, indicating that startups are spread across numerous niche and emerging domains rather than a few dominant industries. However, there is a clear sectoral concentration in healthcare and technology-driven fields, with healthcare being the most dominant. Statistical testing confirms that this imbalance is significant and not due to chance.

Incubation support is also concentrated among a few leading institutions, suggesting that a small number of active incubators play a major role in nurturing startups. However, sector choice appears independent of the type of incubator.

Geographically, startups are clustered in major metropolitan hubs such as Bangalore, Chennai, and Delhi, though activity is gradually expanding to non-metro regions. The data indicate that around half of the startups are based in metro cities, aligning with national trends.

Overall, the findings highlight a startup ecosystem characterized by strong specialization in healthcare and digital technologies, reliance on key incubators, and urban concentration, alongside growing diversity and regional spread.

## 5. SUMMARY AND CONCLUSIONS

The analysis of 236 startups presents a concise yet insightful view of India's innovation ecosystem, highlighting patterns in sector focus, incubation support, and geographic distribution, supported by statistical validation.

There is strong sectoral concentration in healthcare and related digital domains, with healthcare significantly leading other sectors. This dominance is statistically significant, indicating a deliberate focus on health and technology-driven areas. At the same time, enabling technologies such as IoT, ICT, and EdTech play a key supporting role.

Incubation support is concentrated among a few major centres, suggesting that a limited number of institutions drive early-stage development. However, there is no significant link between incubator type and sector, indicating that startups across different domains receive broad-based support.

Geographically, startups are clustered in major cities like Bangalore, Chennai, and Delhi, but there is notable expansion into non-metro regions. Around 47% of startups are located in metro cities, which is statistically consistent with an even distribution.

Overall, the ecosystem is both concentrated and diverse—focused in key sectors, institutions, and cities, yet spread across numerous industries and locations. The findings suggest the need to strengthen leading incubators, encourage sectoral diversification, and support growth in emerging non-metro regions.

## BIBLIOGRAPHY

1. Singh, R., and Sharma, P. 2023 “Platform Cooperativism in Indian Gig Economy Startups.” *Journal of Business Research* 162: 113–129.
2. Gupta, S., and Jain, M. 2024 “Carbon Footprint of Indian E-commerce Logistics.” *Transportation Research Part E* 182: 103–119.
3. Mishra, A., and Patel, N. 2023. “Circular Economy Practices in Indian Smartphone Refurbishment Startups.” *Journal of Cleaner Production* 392: 136–152.
4. Bansal, R., and Singh, S. 2025. “ESG Integration and Valuation Premium in Indian Unicorns.” *Emerging Markets Review* 62: 101–117.
5. Nair, G., and Menon, D. 2024. “Hyperlocal Delivery Startups and Plastic Waste.” *Resources, Conservation and Recycling* 200: 107–122.
6. Tiwari, P., and Bhat, A. K. 2023. “Agritech Startups and Farmer Producer Organisations.” *Agricultural Systems* 206: 103–118.
7. Pratap, S., and George, R. 2024. “Telemedicine Startups and Rural Health Inclusion in India.” *Health Policy and Planning* 39(2): 112–128.
8. Reddy, K., and Iyer, V. 2023. “Quick Commerce Dark Stores and Energy Intensity.” *Energy Policy* 181: 113–129.
9. Malhotra, A., and Kapoor, R. 2024. “D2C Brand Sustainability in Indian Fashion Tech.” *Journal of Fashion Marketing and Management* 28(4): 589–607.
10. Khan, I., and Rao, S. 2025. “EV Two-Wheeler Leasing Startups and Battery Swapping Models.” *Transportation Research Part D* 126: 103–119.

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# FINANCIAL INCLUSION THROUGH STARTUPS: BRIDGING THE URBAN–RURAL DIVIDE

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## Abstract

Financial inclusion is a cornerstone of equitable economic development, yet a substantial gap persists between urban and rural populations in accessing formal financial services. In developing economies, rural communities face systemic barriers such as inadequate banking infrastructure, low financial literacy, and limited access to credit. In recent years, startups—particularly those operating in financial technology (FinTech)—have emerged as transformative agents addressing these disparities. This paper examines how startups contribute to financial inclusion by leveraging digital innovation, scalable models, and customer-centric solutions. It analyzes the mechanisms through which startups bridge the urban–rural divide, evaluates their impact, and identifies key challenges. The study concludes that while startups significantly enhance financial access, coordinated policy and institutional support are essential for long-term sustainability.

**Keywords:** Financial Inclusion, Startups, FinTech, Rural Development, Digital Finance, Emerging Markets

## 1. Introduction

Financial inclusion refers to the accessibility, availability, and affordability of financial services to all sections of society. It encompasses banking, credit, insurance, and digital payment services. Despite progress in financial sector development, rural populations remain underserved due to structural and socio-economic barriers.

Traditional banking systems have struggled to penetrate rural markets because of high operational costs and limited profitability. However, the emergence of startups has revolutionized financial service delivery. By leveraging digital platforms, artificial intelligence, and mobile technologies, startups are extending financial services to previously excluded populations. This study explores how startups act as catalysts in bridging the financial gap between urban and rural areas.

## 2. Literature Review

Financial inclusion has been widely recognized as a driver of economic development and poverty reduction. Early studies by Burgess and Pande (2005) demonstrated that rural bank expansion significantly reduced poverty in India. Similarly, Demirgüç-Kunt and Klapper (2012) highlighted the global disparities in financial access and emphasized the importance of inclusive financial systems.

Sarma (2008) developed an index to measure financial inclusion, showing that developing economies lag significantly due to infrastructural and institutional constraints. Beck, Demirgüç-Kunt, and Levine (2007) established a strong link between financial development and economic growth, reinforcing the need for inclusive financial systems.

With the advent of technology, scholars began focusing on digital financial inclusion. Jack and Suri (2011) studied mobile money platforms and found that they significantly improved financial access among low-income populations. Their later work (2016) showed that mobile financial services helped households manage risks and increase savings.

Recent literature emphasizes the role of FinTech startups in reshaping financial ecosystems. Philippon (2016) argued that FinTech improves efficiency in financial intermediation. Gomber et al. (2018) identified digital innovation as a disruptive force in traditional banking models.

In the context of emerging markets, Arner, Barberis, and Buckley (2015) discussed the regulatory challenges and opportunities associated with FinTech-driven inclusion. Sahay et al. (2020) highlighted that digital financial services significantly improve inclusion but require strong regulatory frameworks.

Indian studies further support these findings. Mehrotra and Yetman (2015) emphasized the role of digital banking in expanding financial access, while Lenka and Barik (2018) found that digital infrastructure and literacy are key determinants of inclusion.

Despite these advancements, gaps remain. Many studies highlight challenges such as digital illiteracy, cybersecurity risks, and trust deficits. This paper builds upon existing literature by specifically focusing on the role of startups in bridging the urban–rural divide.

### 3. Objectives of the Study

- To analyze the role of startups in promoting financial inclusion
- To examine how startups reduce urban–rural financial disparities
- To identify challenges faced by startups in rural markets
- To recommend policy measures for strengthening startup-driven inclusion

### 4. Methodology

This study adopts a qualitative research design supported by secondary data analysis, with an exploratory and descriptive approach.

#### 4.1 Research Design

The research is exploratory in nature, aiming to understand the evolving role of startups in financial inclusion. A descriptive framework is used to analyze patterns, trends, and impacts.

#### 4.2 Data Sources

The study relies on secondary data, collected from multiple credible sources:

- Peer-reviewed academic journals (e.g., JSTOR, ScienceDirect)
- Reports from international organizations such as the World Bank and IMF
- Government publications and central bank reports
- Industry reports on FinTech and startup ecosystems
- Case studies of financial startups

#### 4.3 Data Collection Method

A systematic review of literature was conducted using keywords such as “financial inclusion,” “FinTech startups,” “rural finance,” and “digital payments.” Relevant studies published between 2005 and 2024 were selected to ensure both foundational and contemporary insights.

#### 4.4 Analytical Framework

The study uses thematic analysis to identify recurring themes, including:

- Accessibility of financial services
- Role of digital innovation
- Barriers to adoption

- Impact on rural development

#### 4.5 Limitations of the Study

- Reliance on secondary data may limit empirical validation
- Lack of primary field data from rural users
- Rapid evolution of FinTech may render some findings time-sensitive

#### 5. Role of Startups in Promoting Financial Inclusion

Startups have emerged as significant contributors to financial inclusion by introducing innovative and technology-driven solutions. Their role in addressing key barriers can be explained as follows:

- **Digital Payments:** Startups have transformed the payment ecosystem by introducing mobile wallets and QR code-based systems, which enable secure, fast, and cashless transactions even in remote rural areas.
- **Alternative Credit Models:** They utilize non-traditional data such as mobile usage patterns and transaction histories to assess creditworthiness, thereby extending credit facilities to individuals lacking formal financial records.
- **Neo-Banking:** Startups offer fully digital banking services that allow users to open accounts, transfer funds, and manage finances without the need for physical bank branches, enhancing accessibility.
- **Micro-Insurance:** They provide affordable and customized insurance products, such as crop and health insurance, which help rural populations manage financial risks effectively.
- **Financial Literacy Tools:** Many startups integrate educational resources into their platforms, enabling users to improve their financial knowledge and make informed decisions.

#### 6. Bridging the Urban–Rural Divide

Startups play a crucial role in reducing the financial disparity between urban and rural areas through the following mechanisms:

- **Enhanced Accessibility:** Startups leverage mobile-based platforms to provide financial services in remote areas, thereby eliminating geographical barriers to access.
- **Reduced Costs:** Their lean operational models allow them to offer financial services at lower costs, making them affordable for low-income rural populations.
- **Tailored Financial Products:** Startups design financial products that cater specifically to rural needs, such as flexible repayment options and small-ticket loans suited to irregular income patterns.
- **Faster and Efficient Service Delivery:** Technology enables startups to provide quick transactions, instant loan approvals, and real-time financial services, improving overall user experience.

Overall, these innovations facilitate the inclusion of rural populations into the formal financial system, thereby promoting inclusive economic growth and reducing the urban–rural financial divide.

#### 7. Challenges and Limitations

The challenges faced by startups in promoting financial inclusion can be categorized into several key areas. Each of these challenges significantly affects the reach, adoption, and sustainability of startup-driven financial services.

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### 7.1 Technological Challenges

- **Limited internet connectivity in rural areas:** In many rural regions, inadequate internet access restricts the ability of users to access digital financial platforms, thereby limiting the effectiveness of startup-led financial solutions.
- **Poor digital infrastructure and network reliability:** Weak network coverage and frequent connectivity issues disrupt financial transactions and reduce user confidence in digital systems.
- **Low smartphone penetration in certain regions:** Since most financial applications require smartphones, limited access to such devices prevents a large segment of the population from utilizing these services.

### 7.2 Socio-Economic Challenges

- **High levels of digital and financial illiteracy:** A lack of awareness and understanding of digital tools and financial concepts makes it difficult for rural users to adopt and effectively use financial services.
- **Irregular income patterns affecting financial behavior:** Seasonal and unstable income streams, particularly in agriculture-dependent communities, influence saving and borrowing behavior, making financial planning challenging.
- **Language barriers and lack of localized interfaces:** The absence of region-specific languages and user-friendly interfaces limits accessibility for individuals who are not proficient in widely used languages.

### 7.3 Institutional and Regulatory Challenges

- **Complex compliance requirements:** Startups often face stringent regulatory norms and licensing requirements, which increase operational complexity and may slow down innovation.
- **Lack of clarity in FinTech regulations:** The evolving nature of financial technology regulations creates uncertainty, making it difficult for startups to plan long-term strategies.
- **Data privacy and cybersecurity concerns:** Increasing risks related to data breaches and cyber threats can undermine user trust and pose serious challenges for startups handling sensitive financial information.

### 7.4 Behavioral and Cultural Challenges

- **Trust deficit toward digital financial platforms:** Many rural users are hesitant to adopt digital financial services due to concerns about security and lack of familiarity with technology.
- **Preference for cash-based transactions:** A long-standing reliance on cash transactions continues to dominate rural economies, slowing the adoption of digital payment systems.
- **Resistance to technological change:** Cultural resistance and fear of new technologies further act as barriers to the widespread adoption of innovative financial solutions.

### 7.5 Operational and Financial Challenges

- **High customer acquisition costs in rural areas:** Reaching and onboarding customers in geographically dispersed rural regions require significant investment in awareness and outreach programs.
- **Difficulty in achieving profitability:** Low transaction volumes and thin margins in rural markets make it challenging for startups to sustain their business models.
- **Limited access to funding for early-stage startups:** Many startups face constraints in securing adequate funding, which restricts their ability to scale operations and expand into underserved areas.

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## 8. Policy Recommendations

To enhance the effectiveness of startups in promoting financial inclusion, a set of structured policy measures is necessary. These recommendations aim to strengthen infrastructure, improve literacy, support innovation, and ensure sustainable ecosystem development.

### 8.1 Infrastructure Development

- **Expand rural broadband and mobile network coverage:** Expanding high-speed internet connectivity in rural and remote areas is essential to ensure uninterrupted access to digital financial services and improve overall adoption rates.
- **Promote affordable smartphone access:** Making smartphones more affordable through subsidies or low-cost device programs can significantly increase digital inclusion by enabling more users to access financial applications.
- **Strengthen digital public infrastructure:** Developing robust digital infrastructure such as secure payment gateways, identity systems, and interoperable platforms can create a strong foundation for scalable financial services.

### 8.2 Financial and Digital Literacy

- **Launch nationwide financial education programs:** Structured financial literacy campaigns can help individuals understand savings, credit, insurance, and digital transactions, thereby improving informed decision-making.
- **Encourage vernacular and user-friendly interfaces:** Financial platforms should be designed in local languages with simple interfaces to ensure accessibility for users with limited education or language proficiency.
- **Collaborate with NGOs and local institutions:** Partnerships with grassroots organizations can help extend awareness programs to rural communities more effectively and build trust among users.

### 8.3 Regulatory Support

- **Develop clear and flexible FinTech regulations:** Well-defined and adaptive regulatory frameworks are necessary to encourage innovation while ensuring compliance and protecting consumer interests.
- **Introduce regulatory sandboxes for innovation:** Regulatory sandboxes allow startups to test new financial products in controlled environments, reducing risk while promoting innovation.
- **Ensure data protection and consumer security:** Strong data privacy laws and cybersecurity measures are essential to build user trust and safeguard sensitive financial information.

### 8.4 Institutional Collaboration

- **Promote public-private partnerships:** Collaboration between governments and private startups can accelerate financial inclusion by combining policy support with technological innovation.
- **Encourage collaboration between banks and startups:** Partnerships between traditional banks and FinTech startups can improve service delivery and expand outreach to underserved populations.
- **Support ecosystem development through incubators:** Establishing incubators and accelerators can help nurture early-stage startups by providing mentorship, funding access, and technical support.

## 8.5 Financial Incentives and Support

- **Provide tax benefits and subsidies for rural-focused startups:** Financial incentives can encourage startups to invest in underserved rural markets where operational costs are higher and profitability is lower.
- **Facilitate access to venture capital and funding:** Easier access to funding sources can help startups scale their operations and expand financial services to a wider population.
- **Encourage impact investment in financial inclusion initiatives:** Promoting investments that prioritize social impact alongside financial returns can strengthen long-term sustainability in financial inclusion efforts.

## 9. Conclusion

The findings of this study reinforce the growing significance of startups as key enablers of financial inclusion, particularly in bridging the persistent urban–rural divide. By leveraging digital technologies, data-driven models, and innovative service delivery mechanisms, startups have successfully addressed several long-standing barriers to financial access, including geographical isolation, high transaction costs, and the absence of formal credit histories. Their ability to design customized, affordable, and user-friendly financial solutions has significantly improved access to financial services for rural populations. In addition, startups have contributed not only to increased access but also to improved financial behavior. Through digital payment systems, micro-lending platforms, and financial literacy initiatives, they have encouraged savings habits, expanded access to credit, and strengthened financial resilience among underserved communities. These developments have broader socio-economic implications, including poverty reduction, promotion of entrepreneurship, and enhancement of rural income levels.

However, the study also acknowledges that the impact of startups is not without limitations. Structural barriers such as digital illiteracy, inadequate infrastructure, and complex regulatory frameworks continue to restrict their reach and effectiveness. Furthermore, concerns related to trust, data security, and the long-term financial sustainability of startup models remain critical challenges that must be addressed. Looking ahead, emerging technologies such as artificial intelligence, blockchain, and embedded finance are expected to further transform the financial inclusion landscape. Nevertheless, achieving universal and sustainable financial inclusion will require a coordinated approach involving governments, regulators, financial institutions, and startup ecosystems to ensure inclusive and equitable economic development.

## References

1. Arner, D. W., Barberis, J., & Buckley, R. P. (2015). The evolution of FinTech: A new post-crisis paradigm. *Georgetown Journal of International Law*, 47(4), 1271–1319.
2. Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality, and poverty: Cross-country evidence. *Journal of Economic Growth*, 12(1), 27–49.
3. Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from India. *American Economic Review*, 95(3), 780–795.
4. Demirgüç-Kunt, A., & Klapper, L. (2012). Measuring financial inclusion: The Global Findex Database. *World Bank Policy Research Working Paper*.
5. Gomber, P., Koch, J.-A., & Siering, M. (2018). Digital finance and FinTech: Current research and future directions. *Journal of Business Economics*, 87(5), 537–580.
6. Jack, W., & Suri, T. (2011). Mobile money: The economics of M-PESA. *NBER Working Paper*.
7. Jack, W., & Suri, T. (2016). The long-run poverty and gender impacts of mobile money. *Science*, 354(6317), 1288–1292.
8. Lenka, S. K., & Barik, R. (2018). A discourse analysis of financial inclusion. *International Journal of Social Economics*, 45(7), 1020–1037.
9. Mehrotra, A., & Yetman, J. (2015). Financial inclusion and optimal monetary policy. *Bank for International Settlements Working Papers*.
10. Philippon, T. (2016). The FinTech opportunity. *NBER Working Paper*.
11. Sahay, R., et al. (2020). The promise of digital financial inclusion. *IMF Staff Discussion Note*.
12. Sarma, M. (2008). Index of financial inclusion. *Indian Council for Research on International Economic Relations Working Paper*.



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