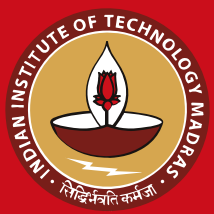
DESIGN THINKING FOR DATA-DRIVEN APP DEVELOPMENT

PROJECT REPORT



TEAM 14

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INTRODUCTION

The project aimed to design and prototype an instant delivery platform, *Markit*, tailored to local shops to bridge the gap between their physical presence and customer demands for quick, reliable, and affordable delivery solutions. This report summarises the project activities, outcomes, and insights from the KDT-EAST framework phases: *Empathize*, *Analyze*, *Solve*, and *Test*.

KDT-EAST PHASES AND OUTCOMES

1. Empathize Phase

Activities Undertaken:
We conducted user interviews with personas representing key stakeholders, including local shop owners, customers, and aspiring entrepreneurs. The process mapped customer journeys to identify pain points, needs, and goals.

Key Decisions & Challenges:

- Deciding the primary target audience (small business owners and urban customers) based on resource constraints.
- Overcoming the limited availability of detailed insights from smaller demographic samples.

Team Contributions:

- *Dev Khatri*: Drafted customer journey maps and consolidated interview insights.
- *Uroosha Rahat*: Conducted interviews with end users and analyzed their responses.
- *Sandeep Kumar*: Developed personas, focusing on business owners' challenges.
- *Ameya Raj*: Focused on customer challenges and mapped their purchasing behavior.

2. Analyze Phase

Activities Undertaken:
Root-cause analysis was performed to identify barriers to scaling delivery services for small businesses. We created "How Might We" (HMW) questions to frame the design challenges.

Key Decisions & Challenges:

- Prioritizing problems such as "speed vs. cost of delivery" and "scaling logistics" based on feasibility.
- Challenges included aligning delivery reliability with affordability.

Team Contributions:

- *Dev Khatri*: Led the creation of HMW questions and facilitated brainstorming sessions.
- *Uroosha Rahat*: Organized root-cause analysis and synthesized findings into actionable design problems.
- *Sandeep Kumar & Ameya Raj*: Collaboratively developed prioritized lists of design challenges.

3. Solve Phase

Activities Undertaken:
Brainstorming and voting sessions generated innovative ideas, including tiered delivery services, shared logistics, and AI-based route optimization. A lo-fi wireframe of the *Markit* app was created to outline the user journey.

Key Decisions & Challenges:

- Balancing human desirability (ease of use) with technological feasibility (affordable AI-based solutions).
- Initial skepticism about adopting shared logistics models among stakeholders.

Team Contributions:

- *Dev Khatri*: Designed the wireframes and proposed API integration for small businesses.
- *Uroosha Rahat*: Proposed eco-friendly options to align with sustainable practices.
- *Sandeep Kumar*: Suggested partnerships with local delivery services.
- *Ameya Raj*: Introduced tiered pricing models and rewards systems.

4. Test Phase

Activities Undertaken:
The prototype underwent user testing in simulated environments. Feedback was collected on delivery tracking, pricing flexibility, and user interface simplicity.

Key Decisions & Challenges:

- Refining app features like real-time delivery tracking and a flexible pricing model.
- Challenges arose in achieving a seamless checkout process in the prototype phase.

Team Contributions:

- *Dev Khatri*: Coordinated user testing and integrated feedback into the prototype.
- *Uroosha Rahat*: Collected user feedback on delivery features.
- *Sandeep Kumar*: Focused on customer service workflows.
- *Ameya Raj*: Refined pricing structures based on test outcomes.

PRODUCT FEATURES

1. **Real-Time Delivery Tracking:** Provides transparency and builds trust.
- *Human Desirability*: High; users valued real-time updates.
- *Business Viability*: Enhances customer retention.

2. Tiered Delivery Services (Express and Standard): Caters to diverse customer budgets.
- *Human Desirability*: High; flexibility in choice was appreciated.
- *Business Viability*: Potential for attracting a wider audience.
- *Technological Feasibility*: Simple to implement.

3. **Shared Logistics Model:** Optimized cost-sharing among businesses.
- *Human Desirability*: Moderate; limited initial adoption.
- *Business Viability*: Cost-effective for businesses.
- *Technological Feasibility*: Requires advanced logistics software.

4. **Eco-Friendly Delivery Options:** Sustainable practices integrated into logistics.
- *Human Desirability*: High among conscious consumers.
- *Business Viability*: Differentiator for businesses.
- *Technological Feasibility*: Feasible with strategic partnerships.

TOOLS USED

- **Design Tools:** Figma & Excalidraw for wire-framing and prototyping, and Canva for Presentations.
- **Collaboration Tools:** Mural for brainstorming, Google Meet for meetings and Jira for task tracking.

LESSONS LEARNED

- **Importance of Scalability:** Early consideration of scaling logistics prevents future inefficiencies.
- **Stakeholder Engagement:** Continuous feedback ensures alignment with real-world needs.
- **Balancing Constraints:** Effective prioritization is crucial for aligning desirability, feasibility, and viability.

THANK YOU!

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~ TEAM 14

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