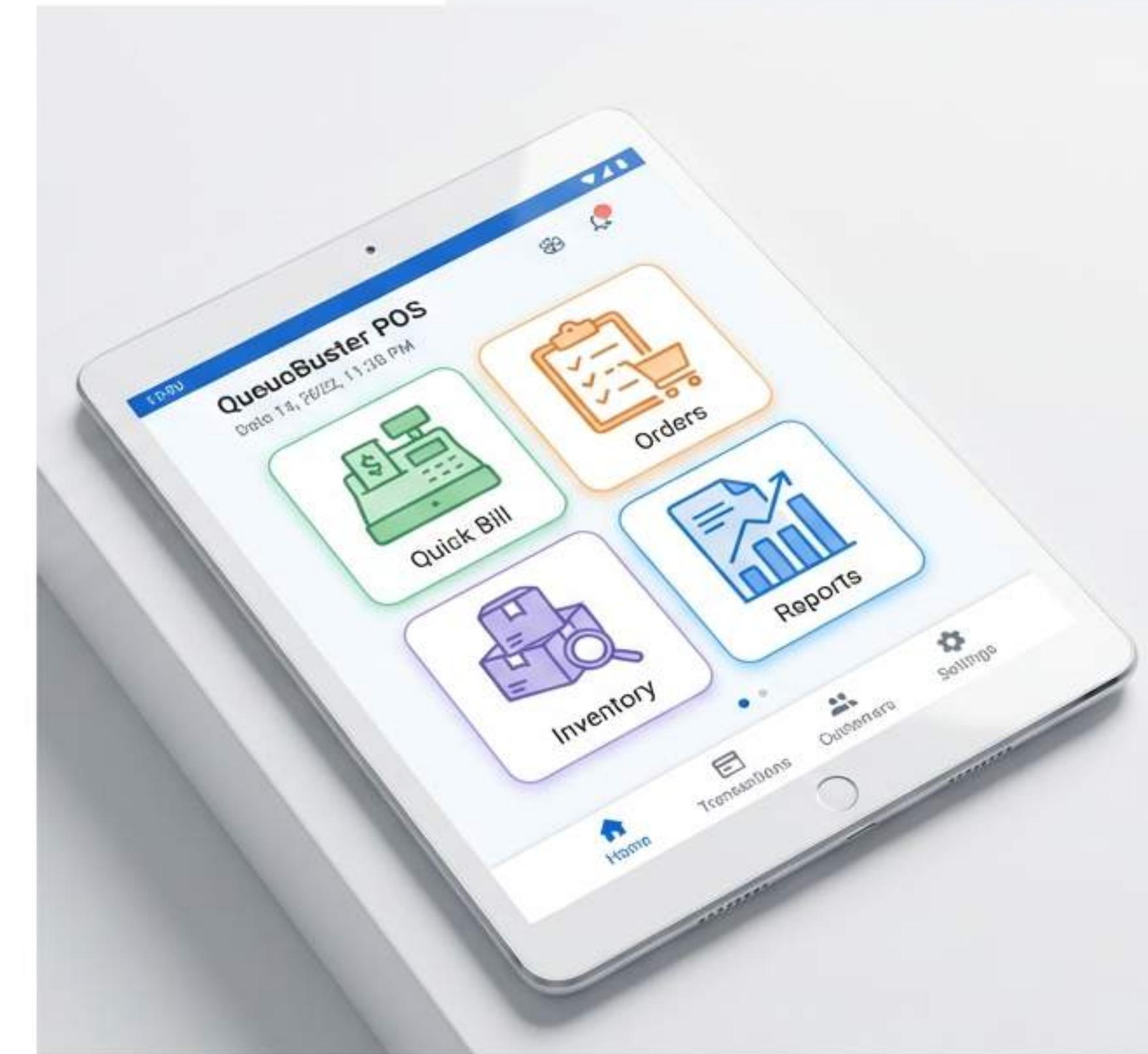


# Improving the QueueBuster Android Application through User-Centred Design

A strategic retrospective on reducing support overhead and increasing user autonomy.



Case Study by Madhavan

# Strategic Overview: Reducing Support Dependency



## The Challenge

Customers struggled to operate the Point of Sale (POS) application, forcing the support team to explain basic features repeatedly. The learning curve was too steep for self-sufficiency.



## The Action

We aggregated support complaints to identify friction points. This led to a redesign of the navigation, cart flows, and data entry forms.



## The Outcome

A philosophical shift from 'Activity-Centred' to 'User-Centred' design, enabling users to intuitively learn the app without manual intervention.

# High Support Volume Signalled Design Flaws



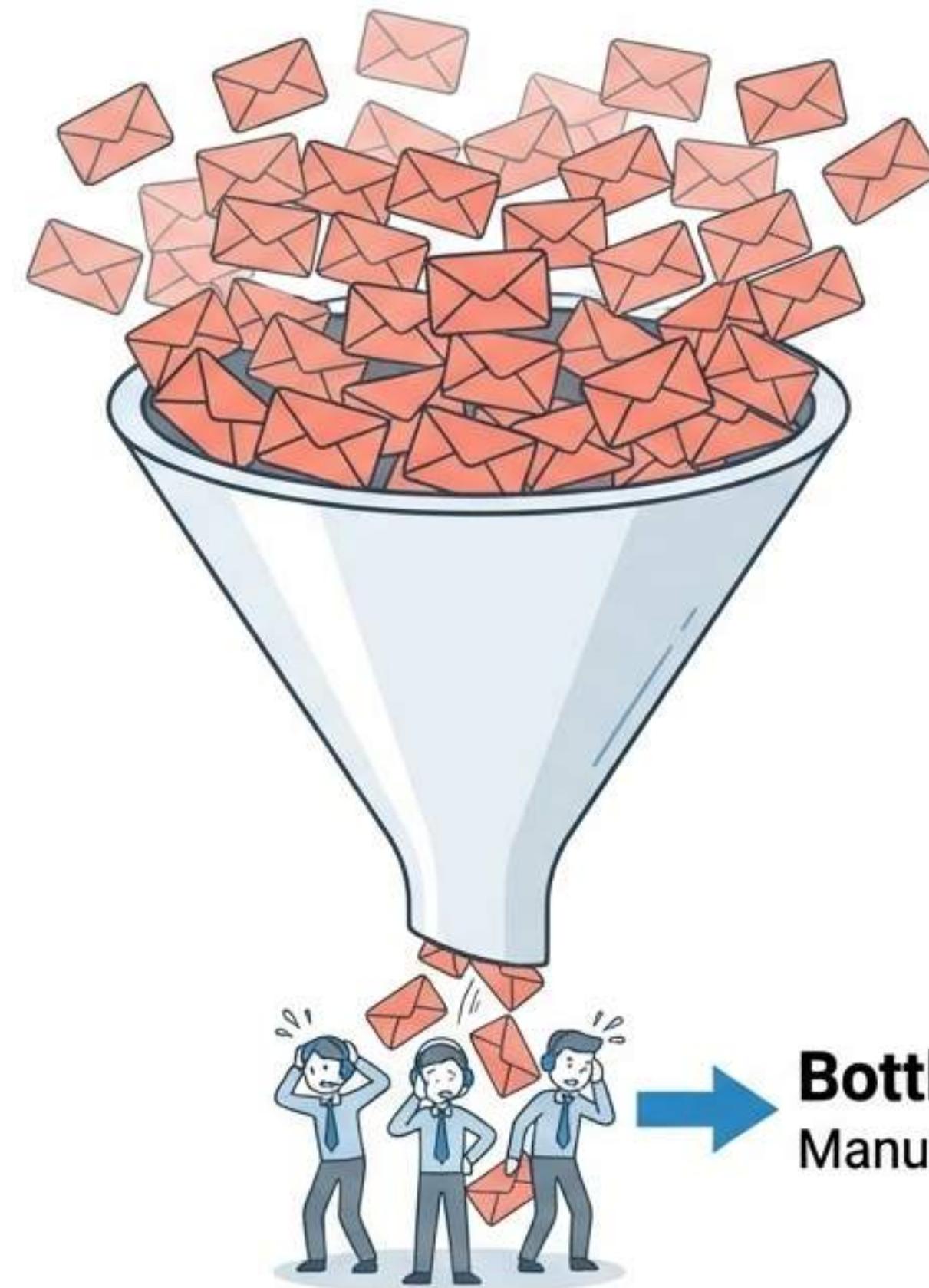
## Main Insight

The primary indicator for the redesign was operational inefficiency. The customer support team was overwhelmed explaining critical features to users.



## Key Goal

The objective was to minimise support work by enabling customers to learn the application independently.



**Bottleneck:**  
Manual Education.

# Utilising Support Tickets as User Research

To diagnose the problem accurately, we bypassed assumptions and went directly to the source of friction.



*“We collected all the possible complaints from the support team in order to solve our problem.”*

# Diagnostic: Four Core User Frictions

## 1. Invisibility

Users experienced a lack of visibility regarding key features within the app.

## 2. Rigidity

In the Food and Electronics sectors, customers could not edit or customise products once added to the cart.

## 3. Ambiguity

The cart lacked detailed product information, making it impossible to differentiate between identical items (e.g., lack of Serial Numbers).

## 4. Complexity

The 'Create Product' process was perceived as overwhelming and difficult to navigate.

# Root Cause Analysis: Why the Interface Failed

| Symptom (Pain Point) | Technical Root Cause  |
|----------------------|---|
| Invisibility         | Over-reliance on a Hamburger Menu. The landing page was restricted to the billing section, hiding other features. |
| Rigidity             | The cart UI did not account for complex scenarios, particularly 'combo' food products that require modification.  |
| Ambiguity            | Suppression of critical metadata. IMEI and Serial Numbers were not displayed in the cart view.                    |
| Complexity           | Poor form design. The 'Create Product' form was a single block of unsegregated fields without clear hierarchy.    |

# Strategic Redesign Goals



**Centralise Navigation:** Create a dedicated Home Screen comprising all important application features, removing the dependency on hidden menus.



**Prioritise Speed:** Rename 'Open Product' to 'Quick Bill' to better align with the user's need for preference and speed.



**Intelligent Cart:** Redesign the Cart Page to handle complex item details and differentiation.

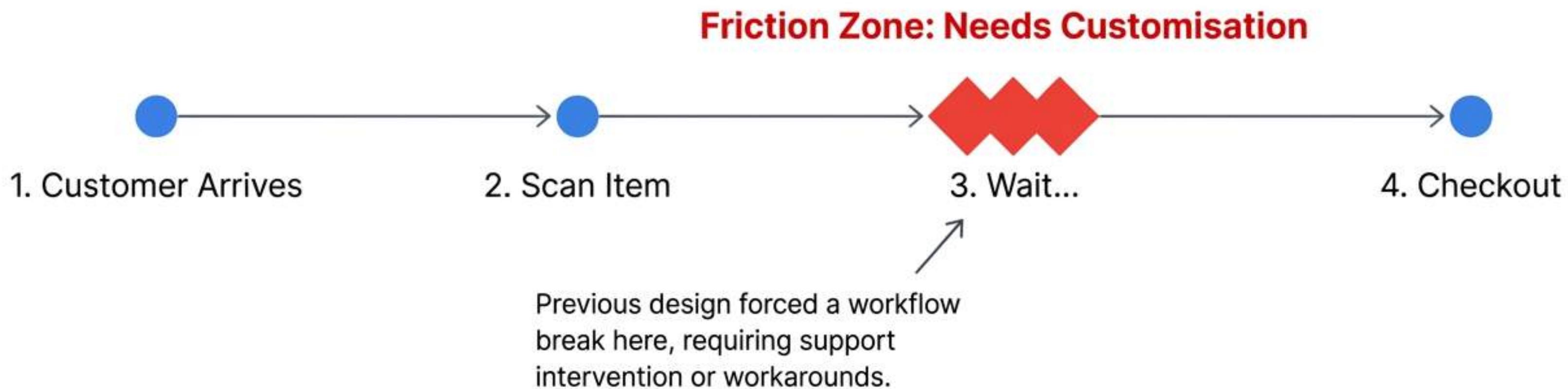


**Structured Input:** Implement proper segregation of input fields in the 'Create Product' form to distinguish between mandatory and optional data.

# Contextualising the Cashier's Journey

Understanding the cashier's environment was critical. The design needed to accommodate high-frequency tasks where speed is paramount.

## The Cashier's Workflow



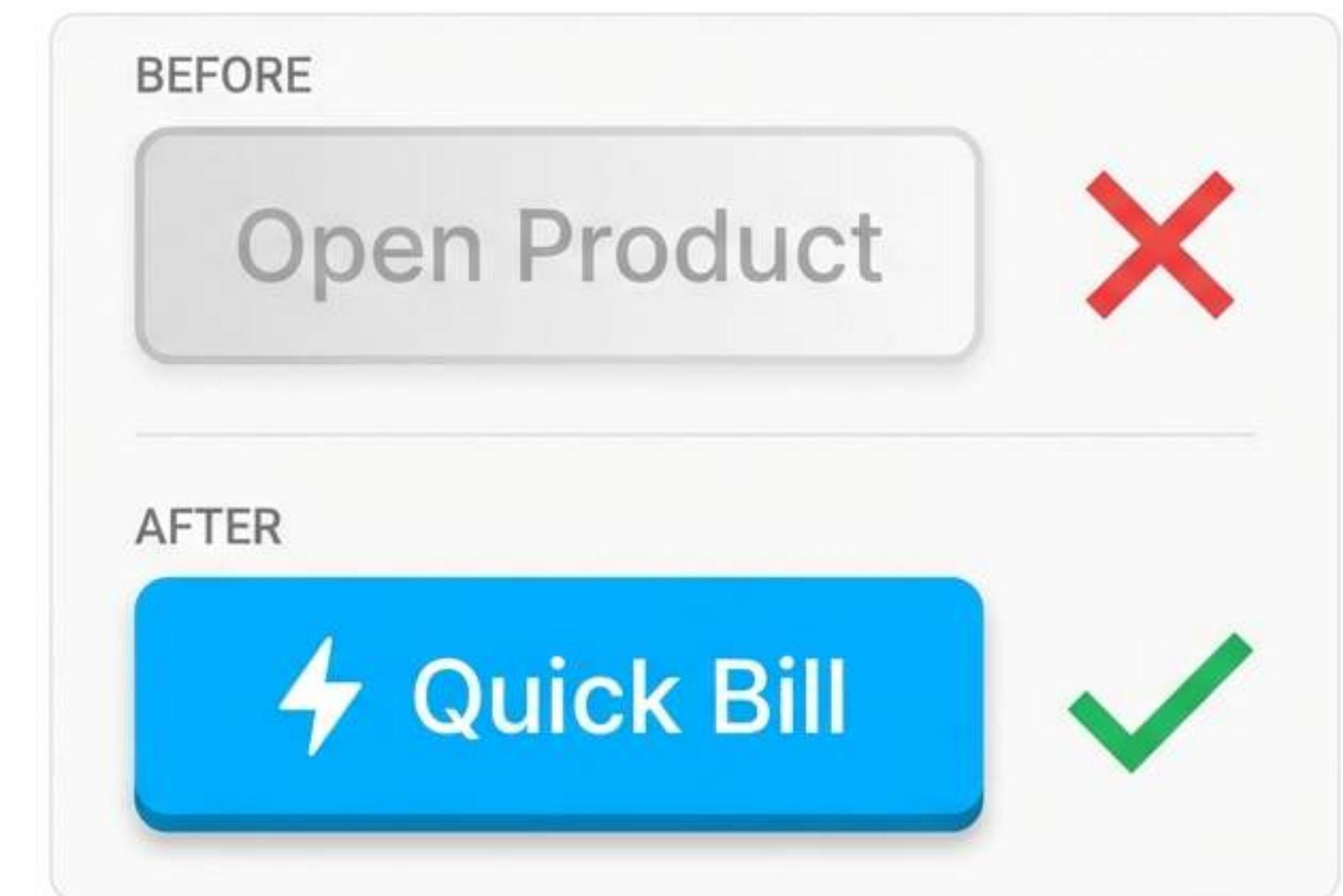
# Centralising Features on a New Home Screen

Moving from a billing-only landing page to a dashboard-style Home Screen that surfaces all critical features immediately upon login.



# Prioritising Speed by Renaming “Open Product”

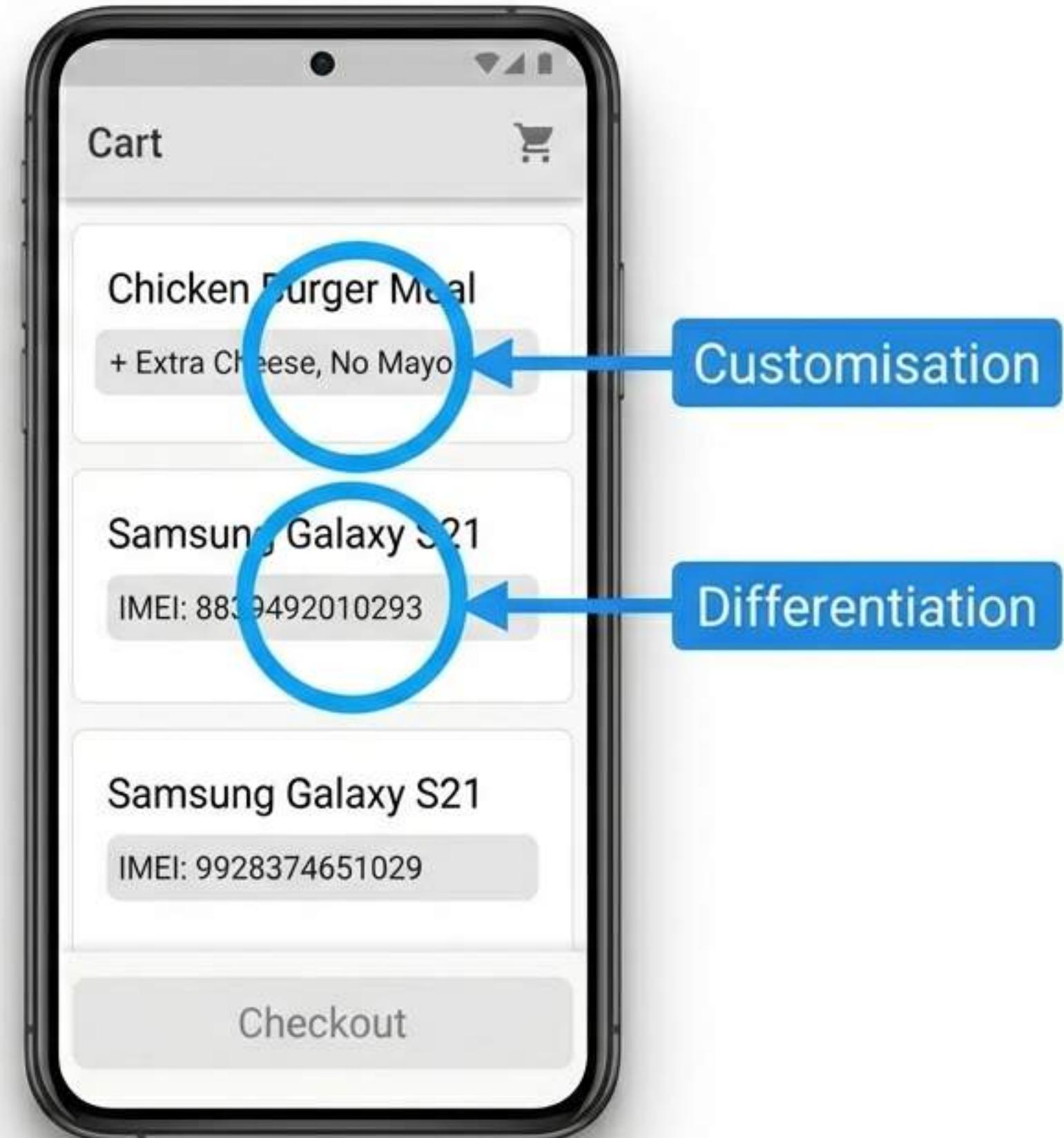
Aligning system language with the user's mental model. The feature previously known as "Open Product" was renamed to "**Quick Bill**" to imply action and speed.



Terminology Shift: From Database Status to User Goal.

# Enhancing the Cart for Complex Transactions

Differentiation and Customisation were key. The cart now supports detailed product identifiers and in-line editing.



# Reducing Cognitive Load in Product Creation

The 'Create Product' form was segregated to group related fields and clearly mark mandatory data.

Logical Grouping



Create New Product

Basic Information (Mandatory)

Name  Price

Inventory Details (Optional)

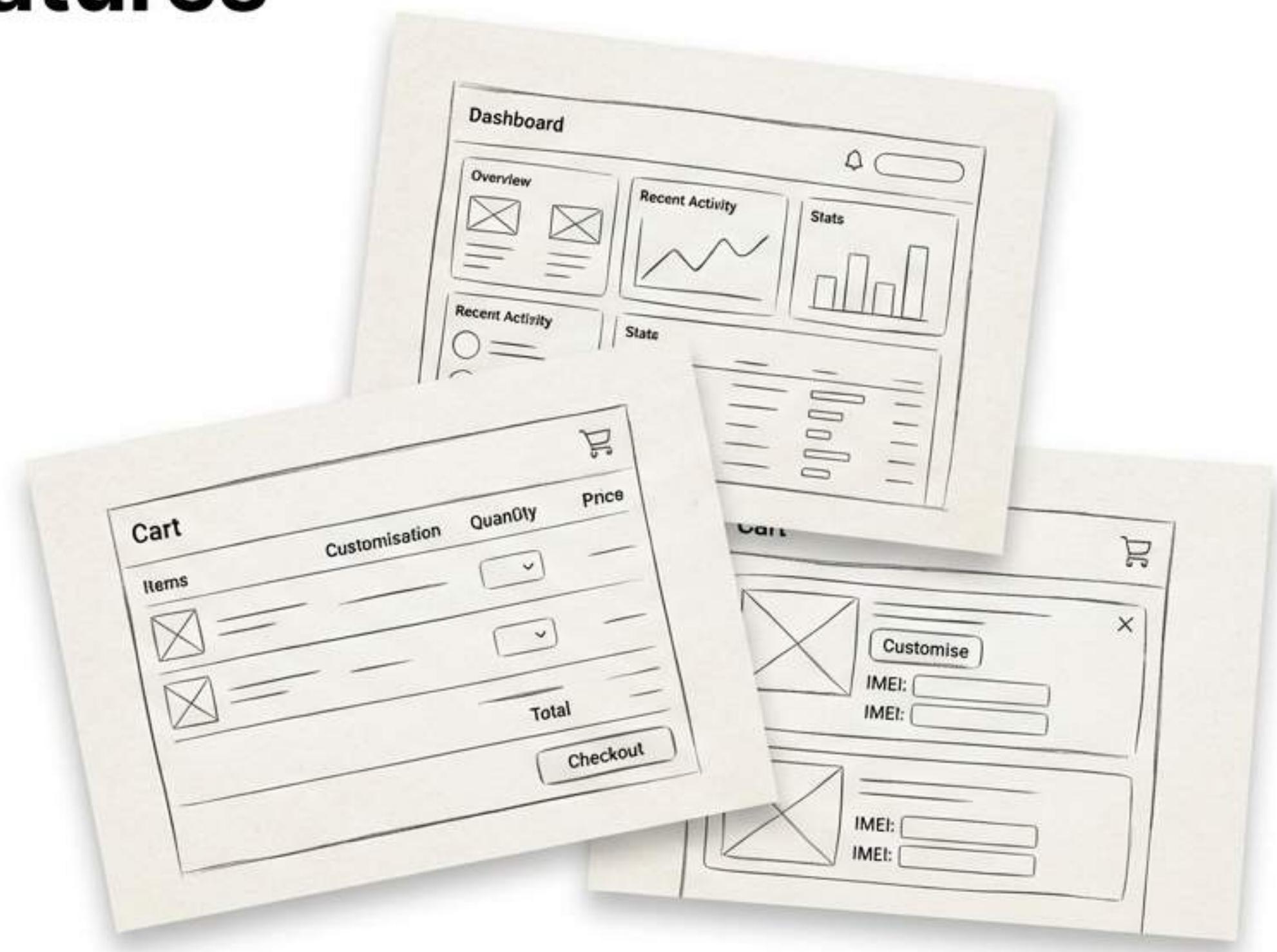
Stock Count  SKU

Taxation

Tax Category

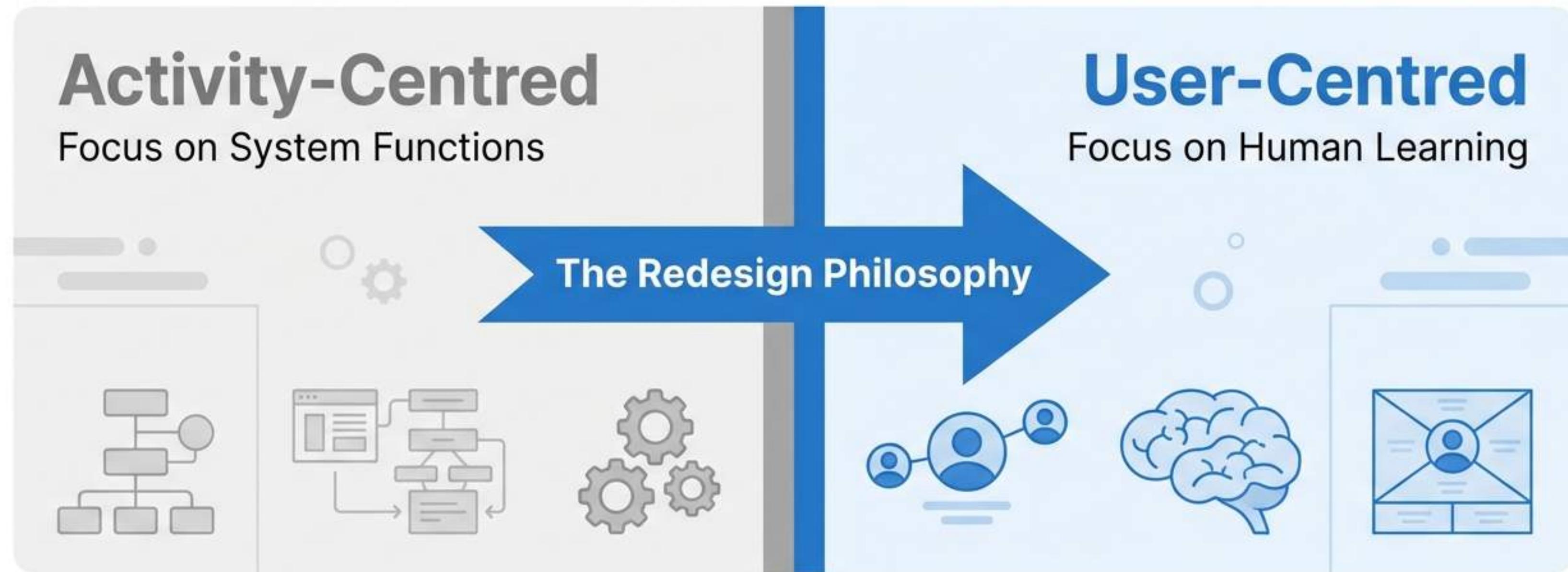
# Integrating New Features via Wireframing

Wireframing was an essential intermediate step to test structure before applying visual polish.



Low-Fidelity Structure validation.

# Shifting from Activity-Centred to User-Centred Design



Project led by Madhavan with support from Samarth Gupta.

# Principles of the Redesign

-  **Discoverability:** Critical features must be visible on the Home Screen, not hidden in drawers.
-  **Clarity:** Terminology (e.g., 'Quick Bill') must match the user's intent.
-  **Detail:** Complex industries require detailed **metadata** (IMEI/Serial) to prevent errors.
-  **Structure:** Long forms must be **segregated** to reduce perceived complexity.

**Design decisions directly impact support volume.**