UV M-Commerce Interface
System Design

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The Situation

Villagers

Face-to-face

Mobile DSPs

Traveling salesman

Store (in village)

Phone calls (flash)

UV Hub (in City)

Figure by MIT OpenCourseWare.
Feedback From United Villages

• We are not targeting the Villagers, we are targeting the shop owners and travelling salesmen

• UV wants a J2ME solution, no more voice phone calls!
  – Version 1, simple
    • Place order
    • Order confirmation/history
  – Version 2, advanced features
    • Registration of customers
    • Payment via pre-paid cards
    • Price negotiations

• UV wants 2 deliverables
  – J2ME solution, Version 0.8
  – Study of effectiveness of solution
Feedback from United Villages

• Piloted an SMS ordering system
  – MDSPs willing to absorb cost of SMS
• It failed (call volume did not decrease):
  – Order products not in the catalog
  – Catalog does not have prices
  – Price negotiation
• (Will a J2ME implementation address these problems?)
Changes to the Ordering System

• Add prices to Catalog
• Set policy for volume discounts
• Items numbers more phone-input friendly
Technology Survey

• What type of devices are being used by the Mobile DakNet Service Providers (MDSPs)?

• 20 responses
  • 15 of 20 phones don’t support J2ME!
  • 10 of 20 phones don’t have color screens!
  • Maximum screen size is 176x200 pixels
Solution

• Require the MDSPs to have a J2ME-enabled phone
• Currently deciding on suggested phone
  – MIDP 2.0
  – JSR 75 (persistent storage)
  – JSR 205 (Wireless messaging API 2.0)
  – Bluetooth for app install
Needs Assessment
Needs Assessment

• 13 questions

• Questions focus on:
  – Why didn’t you use/like the SMS ordering system?
  – Why do you speak with an operator at UV?
  – Would you use an application for ordering from the e-Shop?
Use Cases

1. MDSP orders product(s)
   – Searching for product(s)
   – Specifying quantity of each product
   – Receiving confirmation from UV hub

2. Check on status of order

3. MDSP checks his/her order history
   – Reorders
   – Check his/her profits
J2ME Proposed Design
Databases

Order History
- Date
- Time
- **Order No**
- Products
- Price
- Quantity
- Status

Catalog
- **Item Code**
- Name
- Price
- Category

Category
- **Category ID**
- Name (Food)
- Code (FD)
User Interface Design

1. Search the Catalog
2. Order History
3. View Basket
Search the Catalog

Steps (Screens):
1. Search by item code, name
2. Browse Listings (name, price)
   • Select Item
3. Enter Quantity
   • show total price
4. Add to Basket
Browse Listings

- FM15 Printer Paper: 200 sheets, 20Rs.
- CM33 Notebook Paper: 100 sheets, 20Rs.
- FM15 Inkjet Paper: 5 sheets, 20Rs.

Back
User Interface Design

• Top level Menu

1. Search the Catalog
2. Order History
3. View Basket
View Basket

Menu

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Qty</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM33</td>
<td>Paper 5</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>BO38</td>
<td>Book</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Total 125Rs.

Steps:
1. Select/Deselect – add/remove
2. Check total price
3. Send

Back  Send
Order Confirmation

Your order number is O45

Done

Order Cancelled

There was something wrong with your order, a UV representative will call you shortly. Have a nice day.

Done
User Interface Design

• Top level Menu

1. Search the Catalog
2. Order History
3. View Basket
Order History

Menu

<table>
<thead>
<tr>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td>17:23</td>
<td>10/21/2008 O45</td>
</tr>
<tr>
<td>11:21</td>
<td>10/20/2008 O44</td>
</tr>
<tr>
<td>10:12</td>
<td>10/19/2008 O43</td>
</tr>
</tbody>
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Reorder

Back