TECHNOLOGY FOR EMPOWERING STREET TRADERS IN LEAST DEVELOPED COUNTRIES (LDC)

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### Who are street traders?

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal status</td>
<td>Informal &amp; Unlimited,</td>
</tr>
<tr>
<td>Evictions</td>
<td>Frequent evictions from the cities</td>
</tr>
<tr>
<td>Business</td>
<td>Investment = 14.45€ to 1445€ Profit 2.5€ to 20€ per day, 12-17 hours per day</td>
</tr>
<tr>
<td>License</td>
<td>No license &amp; Unregistered business</td>
</tr>
<tr>
<td>Access to credit</td>
<td>Very weak</td>
</tr>
<tr>
<td>Impact to society</td>
<td>Only opportunity for poor and less educated</td>
</tr>
<tr>
<td>Education level</td>
<td>Very low</td>
</tr>
<tr>
<td>Business Skills</td>
<td>Weak</td>
</tr>
<tr>
<td>Magnitude</td>
<td>Around 25% of Dar Es salaam in 2007</td>
</tr>
</tbody>
</table>

**VIDEO CLIP-STREET TRADERS IN DAR CITY**
Findings From Our Research

- Lack of marketing information
- Limited promotion strategies
- Weak customer relationship
- No record keeping
- Weak business networking
- Lack of SMART business direction
- Lack of technology application in business
- Need for technology solution for street traders challenges
- Saving Behaviour
## Potential Technology solution for Street Traders Challenges

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Tech Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing</td>
<td>Price advisor</td>
</tr>
<tr>
<td>Customer Relationship</td>
<td>Customer and seller matchmaking</td>
</tr>
<tr>
<td>Distribution</td>
<td>Location based technology</td>
</tr>
<tr>
<td>Product Management</td>
<td>Product Database</td>
</tr>
<tr>
<td><strong>Record Keeping</strong></td>
<td><strong>Accounting App</strong></td>
</tr>
<tr>
<td>Education</td>
<td>M-Learning</td>
</tr>
<tr>
<td>Stock Management</td>
<td>Inventory Control</td>
</tr>
<tr>
<td>Risk prevention</td>
<td>Social networking</td>
</tr>
<tr>
<td>Marketing Decision</td>
<td>Marketing Information System</td>
</tr>
<tr>
<td>Promotion</td>
<td>Electronic WOM (eWOM)</td>
</tr>
</tbody>
</table>
Ongoing Project for Street Traders

- Bookkeeping application for street traders
- Street traders can see their business performance by using mobile phones
- Require to enter sales, purchases and expenses
Why bookkeeping application for street traders

• Our previous study found record keeping is a big challenge in street trade
• Only a limited number of applications are currently targeted for street traders.
• Existing applications are not compatible with street traders (language, and features)
• Need for co-creating
• Possible to add new features in future
The importance of having a bookkeeping application for street traders

- See business progress, hence make a wise, informed business decision
- Set reasonable price
- Evidence when seeks a credit / loan
- Set business directions (goal and objectives)
- Decide on product portfolio
Technology based street traders, business school

--- Implemented at the college of business education in Tanzania
--- Center for researchers, traders, and software engineers

• The aim of the school is to
  ❑ Conduct research on street vending,
  ❑ Provide research-based education for street vendors,
  ❑ To design and implement ICT-based educational solutions for street vendors

-- School provides an arena where street vendors, researchers, educators, designers, and software developers collaboratively design education and ICT-based solutions

--- Have 2 PhD candidates, mentors, and 15 street traders
Relationship with SDG

GOAL NU 8- Promote inclusive and sustainable economic growth, employment and decent work for all

Sustainable development

--street trade is a source of employment to poor and less educated in LDC

--Technology has a power to increase productivity of street business
Partnership

University of Eastern Finland
http://www.impdet.org/

College of Business Education
Tanzania
www.cbe.ac.tz
METHOD USED

- Co-design research approach

Study street traders business skills and strategies

Develop technological solution for street traders (working prototype)- with and for street traders

Evaluate and design full application

Demonstrate and communicate the findings
CHALLENGES

• Getting street traders
• Resources – money & tools
• Fulltime software engineers
• Upgrade a working version to full application
WHY WE ARE HERE

• Share the findings with the world
• Seek collaboration with researchers, software engineers, and funders
• Represent marginalized street traders
CONCLUSION

Dualist holds that, the informal sector will fade away with the development of the formal sector (Hart, 1973). In reality the formal sector is declining in LDC hence call to modernize informal sector particularly via technology.
Reference


Mramba, Nasibu; Sutinen, Erkki; Haule, Michael; Msami, Peter (2014) Survey of mobile phone usage patterns among street vendors in Dar es Salaam city - Tanzania. In International Journal of Information Technology and Business Management, 28(1), 1-10