The Importance of Addressing Sociocultural Factors in Local Economic Development

Comparative Case Studies from Dairy Value Chain in Indonesia

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Structure of Presentation

1. Introduction
   - Background
   - Research framework

2. Highlighted research results
   - Overview of dairy VC in Indonesia
   - Comparing successful/unsuccessful cases

3. Conclusions and practical implications
Research area:
- Application of Value Chain (VC) Approach in development cooperation – dairy VC Indonesia
- Local/Regional Economic Development (GTZ RED): spatial perspective

Study cases of dairy VCs:
- Unsuccessful upgrading: Central Java
- Successful upgrading: West and East Java
Background (2)

- **Point of departure (conclusions in Master thesis)**
  - Relatively equal economic opportunity but different VC performance (\textit{?homo oeconomicus?})
  - Key determinant: cooperation/coordination among various VC actors $\Rightarrow$ VC governance
  - No place for socio-cultural factors in analysis and explanation

- **General guiding questions:**
  - How to incorporate socio-cultural factors?
  - How to explain the successful/unsuccessful cases?
Research Framework

- Conceptual:
  - Value Chain concept of ValueLinks

- Theoretical:
  - Theory of institution by Scott 2008

- Analytical:
  - Macro-Micro-Model by Coleman and Esser
Conceptual Framework: Map of Dairy VC
Institutions are comprised of:
- regulative,
- normative, and
- cultural-cognitive elements that, together with
  - associated activities and
  - resources, provide
  - stability and meaning to social life.
Analytical framework: Micro-macro model by Coleman and Esser (Miebach 2006: 398)

1. Logic of Situation (macro to micro)
2. Logic of Action (micro to micro)
3. Logic of „Aggregation“ (micro to macro)
4. Indirect causation of two macro phenomena (macro to macro)
History of Dairy Farming in Indonesia

- i. 1905 – 1945: Dairy farming under foreign estates
- ii. 1945 – 1960: Initiation and dissemination of smallholder dairy farming
- v. 1996 – 2000: Temporary decline due to economic crisis
## Overview of Dairy Industry in SEA

**Table 5-1 Overview of dairy industry in selected South East Asian countries in 2006**

<table>
<thead>
<tr>
<th>Country</th>
<th>Dairy cattle population ['000 head]</th>
<th>Production of fresh milk ['000 ton]</th>
<th>Consumption of dairy products ['000 ton]</th>
<th>Imports of dairy products ['000 ton]</th>
<th>Exports of dairy products ['000 ton]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>369</td>
<td>616&lt;sup&gt;4&lt;/sup&gt;</td>
<td>2,212</td>
<td>1,806</td>
<td>210</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1,434</td>
<td>883</td>
<td>985</td>
<td>102</td>
<td>0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>90</td>
<td>38</td>
<td>1,199</td>
<td>1,443</td>
<td>282</td>
</tr>
<tr>
<td>Philippines</td>
<td>6</td>
<td>12</td>
<td>1,580</td>
<td>1,712</td>
<td>144</td>
</tr>
<tr>
<td>Thailand</td>
<td>275</td>
<td>826</td>
<td>1,845</td>
<td>1,266</td>
<td>247</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>145</td>
<td>215</td>
<td>1,035</td>
<td>821</td>
<td>1</td>
</tr>
<tr>
<td>SE-Asia</td>
<td>2,468</td>
<td>2,622</td>
<td>9,717</td>
<td>8,730</td>
<td>1,635</td>
</tr>
</tbody>
</table>

Source: FAO (2009b)
Figure 5-4 Development of annual per capita consumption of dairy products

Source: FAO (2009b), FAO (2009a)
VC-Mapping: Chain Function and Value-Adding Activities

Input provision
- Cattle selection and breeding
- Calf, heifer rearing
- Artificial insemination
- Green forage production
- Concentrate feed production

Dairy production
- Livestock (calf, heifer, milking cows) management
- Nutrition and feeding management
- Reproduction management
- Milk harvesting
- Transporting to MCC

Collecting, transporting
- Bulking
- Cooling down
- Quality analysis and control
- Recording
- Transporting to dairy industry
- Other services to coop members

Dairy processing
- Quality analysis and control
- Product development
- Processing and manufacturing
- Marketing, sales
- Services to suppliers

Distribution
- Transporting to wholesalers, retailers
- Storage
- Trading

Legend
- Chain function
  - Value-adding activity 1
  - Value-adding activity 2
Domestic and Export Markets
Dairy Product Groups in Indonesia

Figure 6-2 Product groups in Indonesian dairy value chain according to BPS and USDA-FAS

Source: adapted from Meylinah (2008); Stanton, Emms and Sia (2005)
Market Value and Share of Dairy Imports

Figure 6-4 Market value and market share of imported dairy products by source

Source: Bond et al. (2007, pp. 14–15)
# Dairy Market Segmentation

<table>
<thead>
<tr>
<th>Market segment</th>
<th>Location</th>
<th>Estimated market size</th>
<th>Product</th>
</tr>
</thead>
</table>
| High-income consumers including expatriates | Metropolitan areas | 2-5 million people    | - Imported products  
- Pasteurised liquid milk  
- Yoghurt  
- Premium ice cream  
- High value formula and milk powder |
| Middle-income consumers | Urban areas | 8-15 million people | - All kind of branded local dairy products (Nestlé, Friessche Vlag, Indomilk, Ultrajaya, etc.)  
- Increasingly imported formulas for infants and children |
| Low-income consumers | Sub-urban and rural areas | 60-100 million people | - Instant food and beverage products (dairy-based)  
- Sweetened, condensed milk  
- Milk powder and formula in small packages produced specially for this market |

Source: Meylinah (2008); Stanton, Emms and Sia (2005)
Location of Dairy Production Centers

Figure 8-1 Location of dairy production centres on Java island

### 1st Macro Variable: Successful / Unsuccessful VC Upgrading

<table>
<thead>
<tr>
<th>Aspect</th>
<th>With Upgrading</th>
<th>Without Upgrading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product upgrading</strong></td>
<td>Lower bacterial contamination, higher milk price</td>
<td>Higher bacterial and adulterants contamination, lower milk price</td>
</tr>
<tr>
<td>Process upgrading within a chain link</td>
<td>Coop: improved infrastructure and organisational format Dairy farmers: adoption of GDFP, higher productivity</td>
<td>Coop: Inadequate infrastructure, higher propensity for corruption Dairy farmers: milk adulteration, lower productivity</td>
</tr>
<tr>
<td>Process upgrading between chain links</td>
<td>Enforced quality regulations and quality/price system, socio-culturally adjusted training and monitoring system</td>
<td>Weak quality regulation with absent quality/price mechanism</td>
</tr>
<tr>
<td><strong>Functional upgrading</strong></td>
<td>Provision of new and important collective services</td>
<td>Limited provision of collective service</td>
</tr>
</tbody>
</table>
Figure 8-2 Illustration of higher-performing interaction system

Source: Moran (2007, p. 4) and own compilation
Figure 8-3 Illustration of lesser-performing interaction system

Source: Moran (December 2008, p. 22), Moran (2007, p. 4), and own compilation
### 2nd Macro Variable: VC Governance Extended by the Institutional Theory

Table 10-3 Overview of the institutional aspect in influencing the interaction systems

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Lesser-performing interaction system</th>
<th>Higher-performing interaction system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulative</td>
<td>Weak quality regulation, absent incentive system, ambiguous organisational format of VUC, low professional performance, inadequate service provision</td>
<td>Well-defined and enforced quality regulations, functioning incentive system, specialised dairy cooperative, higher professional performance, improved service provision</td>
</tr>
<tr>
<td>Normative</td>
<td><strong>Social norm of <em>pakewuh</em>, principle of ‘familialness’ in cooperative management</strong></td>
<td>Group learning, monitoring, and pricing; social role of a good dairy farmer</td>
</tr>
<tr>
<td>Cultural-cognitive</td>
<td>Dairy farmer as non-traditional profession, no habit of drinking milk, subsistence orientation, dairy farming as sideline job, acceptance of opportunistic behaviour</td>
<td>Problem of cultural and social relation in communication, information dissemination via social leaders, visual and practical learning, social imitation, increasing consumption of own-produced milk, increasing specialisation on dairy farming</td>
</tr>
</tbody>
</table>

Source: own compilation
Figure 10-16 Overview of the variables in the lesser-performing interaction system

Source: own compilation
Figure 10-4 Macro variable: Prevalence and acceptance of opportunistic behaviour

Source: own compilation
Figure 10-10 Selected action: Adulterate milk with water

Source: own compilation
Figure 10-11 Intermediate outcome: Production of low-quality milk

Source: own compilation
Figure 10-27 End outcome: Higher and improving chain performance

Source: own compilation
Other Key Findings

- **Organised collective action (Cooperatives)**
  - Interface dairy farmers – dairy processing industries
  - Coops exert more influences, leading change
  - Driving factor of coop reform: coop leaders

- **Local leaders (strategic role and function)**
  - Internal change agent, pioneer, champion
  - Interest of leaders: in-line or against?
  - Inherent quality of leader: no contextual effect
Conclusions

- **Socio-cultural factors**
  - have different significance in different interaction systems and locations

- **Social values and social relations**
  - can positively and negatively influence rule enforcement

- **Cultural value, habit, and common practices**
  - may hamper and support development efforts

- **The need to actively address socio-cultural aspects in development projects**
Practical Implications

- Analysing and addressing socio-cultural aspect in rural economic development:
  - Social relation
    - Business only, egalitarian, hierarchical, kinship, or ...
  - Social leader
    - Individuals with influence and power – their interest?
  - Social value/norm and habit/common practices
    - Any distinct one(s) in the society? Supportive or inhibiting development?
  - Orientation
    - Commercial, semi-commercial, traditional/subsistence? Primary/complementary?
End of Presentation