Impacts of e-commerce and IT on Global Agricultural Markets

The Current State of Play in Latin America
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• A note on terminology
• The differences
• e-agribusiness in Latin America
  - The market
  - The portals
  - Where is it going
• Conclusion
e-business is the more relevant term to fully understand the impacts of information technology

**e-business**
Realization of a business function electronically, such as procurement, promotion, etc., including transactions

**e-commerce**
Realization of an action carried-out electronically that directly leads to a commercial transaction
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Latin America following the general trend but there are important differences that define the e-agribusiness

- Infrastructure
- Capital markets
- Regulatory environment
- Institutional environment/support
- Market system structure
Differences: Infrastructure

• Average Internet penetration in Latin America placed at 5%

• 17.3% of population has access to telephone services
  - Chile 24.5%
  - Argentina 23.1%
  - Colombia 22.4%
  - Brazil 20%

• Low PC penetration
  - Five or 6 computers per 100 people in Mexico
Differences: Capital Markets

- Limited risk capital
- Financial markets are small and developing
- FX fluctuations
- Tax structure
Differences: Regulatory Environment

- FX regulations
- Contract law
- Price controls
- Import/export controls
Differences: Market Structure

• Large numbers of small producers
• Large numbers of small retail outlets
• Importance of wholesale market places
• Suppliers and middlemen important source of capital
Differences: Institutional Support

- Poor market information
- Inefficient fulfillment mechanisms
- Formal credit system in different stages of development
- Government involvement -- movement from controlled to freer market policies
Many of the key components are missing due to the Latin American Institutional environment.

Component concept based on Forrester Research.
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Internet users in Latin America

- Brazil: 40%
- Mexico: 21%
- Colombia: 6%
- Argentina: 10%
- Venezuela: 5%
- Chile: 6%
- Rest: 12%

Source: IDC
Internet consumer spending in Latin America

- Brazil: 62%
- Mexico: 13%
- Argentina: 8%
- Chile: 4%
- Venezuela: 2%
- Rest: 11%

Source: Jupiter
Growth of Internet users in Latin America

Source: IDC
The size of the market tends to be small in numbers but users or potential users represent an important segment of the market

- In Mexico an estimated 90,000 farmers out of over 2.5 million farms have access to the Internet
- In Argentina, according to eMarketer, 10% of the wealthiest farmers use the Internet
- Most large and many mid-sized agribusiness companies are connected to the Internet
- Multinational companies operating in the region are connected and many already have developed and are operating e-business strategies
- Researchers are increasingly using the Internet
Rabobank estimates that the value of agri-B2B will reach US$ 390 Billion by 2004. While North America and Western Europe will dominate, agri-B2B will also play an important role as well in other regions in the world.
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In the U.S. agribusiness e-commerce sites tend to focus on a narrow range of products, while in Latin America, because of the market, sites tend towards a wide product focus.

U.S. Agribusiness e-commerce Sites

- **Wide focus**: 46%
- **Narrow focus**: 54%

Source: Rabobank International
The vast majority of the transactions on agribusiness e-commerce sites in Latin America are through some form of direct, i.e. non-dynamic, sales. As opposed to the U.S. dynamic sales tend to take place on narrow product focused sites.

**U.S. Agribusiness e-commerce Sites**

- Dynamic sales format: 50%
- Non-dynamic sales format: 23%
- Both formats: 27%

Source: Rabobank International
In Latin American only a small number of agribusiness e-commerce sites offer support services, while others will link to sites that will provide support.

**U.S. Agribusiness e-commerce Sites**

- None: 30%
- Linked support: 35%
- On-site support: 35%

*Source: Rabobank International*
News and market information are an important component of Latin American agribusiness e-commerce sites, reflecting the information void in the region.

Source: Rabobank International
There are no significant differences in the revenue models for Latin American e-commerce sites

- Advertising
- Subscriptions or access charges
- Commissions on sales
- Commissions from alliance partners
- Sale of other services (consulting, information, etc.)
Most of the companies look to the region for capital as well as to investment or risk capital funds outside the region.

<table>
<thead>
<tr>
<th>Company</th>
<th>Source of Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uneabasto</td>
<td>Mexico ?</td>
</tr>
<tr>
<td>Itradefood</td>
<td>Mexico &amp; Funds</td>
</tr>
<tr>
<td>Worldfoodtrade</td>
<td>Mexico ?</td>
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<tr>
<td>Agrositio</td>
<td>Argentina &amp; Funds</td>
</tr>
<tr>
<td>Agroenlinea</td>
<td>Mexico &amp; Funds</td>
</tr>
<tr>
<td>Camponuevo</td>
<td>Mexico ?</td>
</tr>
<tr>
<td>Globalfoodexchange</td>
<td>USA &amp; Funds</td>
</tr>
</tbody>
</table>
Who’s left standing?

- General: 32 out of 48
- Brazil: 3 out of 13
- Mexico: 5 out of 7 (and one up for sale)
### Failure to adapt the transaction model to specific market conditions has also been a factor in e-business failures in Latin America

<table>
<thead>
<tr>
<th>product</th>
<th>number of buyers / sellers</th>
<th>product standardization</th>
<th>procurement costs</th>
<th>search costs</th>
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<tbody>
<tr>
<td>ordinary animals</td>
<td>many / many</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>special animals</td>
<td>few / few</td>
<td>low</td>
<td>high</td>
<td>high</td>
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<td>semen</td>
<td>few / many</td>
<td>low</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>commodity feed</td>
<td>many / many</td>
<td>high</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>branded feed</td>
<td>few / many</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>commodity fertil.</td>
<td>many / many</td>
<td>high</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>special fertil.</td>
<td>few / many</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>branded chemicals</td>
<td>few / many</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>commodity chemicals</td>
<td>few / many</td>
<td>high</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>grains and oilseeds</td>
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<td>milk</td>
<td>many / few</td>
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<td>flowers</td>
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<td>low</td>
</tr>
<tr>
<td>fruit &amp; vegetables</td>
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<td>high</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>food ingredients</td>
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<td>high</td>
<td>low</td>
<td>high</td>
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<td>processed food</td>
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<td>low</td>
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<tr>
<td>processed food II</td>
<td>few / few</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
</tbody>
</table>
Rabobank e-commerce business model framework

- Online trade
- Sophistication of sales format
- Scope of sector
- Balance of number of companies

- Specialized (vertical)
- Catalog
- Classified
- One single company
- One fragmented side
- Both fragmented sides
- Pool of co’s or associations
- Independent internet co’
- Neutrality of sponsorship

- Multi-sector (horizontal)
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As in other markets the dominant model in Latin America will be the brick and click.
Agribusiness companies are adopting e-business models to coordinate supply chains as well as to expand market opportunities.

**Diagram:**

- **Strategy**
  - Supply Plan
  - Demand Plan
  - Real Time Order Management
  - Web Selling
  - Procurement
  - Production Scheduling
  - Distribution Logistics
  - Customer Service

- **Suppliers**
- **Clients**
Existing brick and mortar companies are developing their internal e-business strategies, tending to focus on procurement and logistics through limited access systems.
Other examples of e-business in food marketing in Latin America

• Grocery
  - Not that big, but there are some examples such as Disco in Argentina. However, it is important to note that this is an extension of existing business service

• Co-branding
  - StarMedia and Danone co-branding En Forma channel

• Market products to consumers on-line
  - Terra Lycos working with Unilever to target Spanish speakers in Spain, U.S. and Latin America

• Promotion of niche export markets
  - NGO’s in Mexico targeting European market to sell organic food from peasant farmers and enterprises
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In general, e-business in the Latin American food industry is focused on the transactional and procurement functions, not fully taking advantage of information management.
So what can we say

• The impact on agricultural markets, in general, has been minimal to this point
• Many of the trends are not much different from what is going on in the rest of the world
• Pure player sites going out of business and ones that are left are hurting for money
• Very little intra-regional focus
• Movement from pure players to company owned sites and/or managed trade