TRANSACTION VISIBILITY: RE-INTERPRETATION OF E-COMMERCE CASES

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I. Introduction
II. Theoretical Background
III. Research Methodology
IV. Case Profiles
V. Discussion & Conclusion
I. Introduction

1. Study purpose
   • Proposing a new perspective regarding the role of visibility characteristic of electronic transactions

2. Contributions
   • Two different benefits from the visualizing forte of IT
   • Appropriate conditions for successful transaction visibility change
II. Theoretical Background

1. TRANSACTION
   - “the act of doing business”
   - All activities associated with the effective exchange

2. TRANSACTION VISIBILITY
   - Visible transactions
   - Invisible transactions
   - The degree to which the detailed logic of transactions is open to view and subject to manipulation of customers.
II. Theoretical Background

3. CHANGING TRANSACTION VISIBILITY

3-1. Making transactions visible
- inviting customer’s participation,
- empowering the customer, and facilitating the customer’s self-fulfillment

3-2. Making transactions invisible
- Connecting relevant or subsequent services to the customer’s contact point processes by “packaging”
- Relocating the contact point with the customer further upstream
III. Research Methodology

1. Case Method
   - 10 cases on transaction visibility change

<table>
<thead>
<tr>
<th></th>
<th>Korean Co.</th>
<th>Foreign Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing Visibility</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Decreasing Visibility</td>
<td>5(4 success + 1 failure)</td>
<td>5(4 success + 1 failure)</td>
</tr>
</tbody>
</table>

2. Analysis
   - Pattern-matching analysis
     : Comparison between rival theories
III. Research Methodology

3. Data Collection
   › 5 groups of MBA students were asked to find out a case for each mode.

   › Construct Validity and Reliability
     : each team demonstrated their case analysis in class and had free discussion with audience students.
**IV. Case Profiles-Increasing Visibility**

**Case 1. LG Decovil**

<table>
<thead>
<tr>
<th>Traditional Transaction Actions</th>
<th>Change &amp; Evidence</th>
<th>Explanations</th>
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<tbody>
<tr>
<td>- In order to remodel an apartment, consultation with an interior designer is needed. - The customer received passively the seller’s explanation of quality. - The customers could only imagine the renovated status of house.</td>
<td><strong>Increased Visibility:</strong> - One can choose where to renovate. - By putting the furniture to desired places and selecting the colors, one can simulate the overall construction. - The cost of the total renovation is estimated.</td>
<td><strong>Customer’s needs for control:</strong> - Customers want to choose the desired price and goods. - Customers want to see the simulations of several designs. <strong>Customer’s relative capability:</strong> Proficient customers know what kind of designs they want and they can choose efficiently the item of construction and materials. <strong>Vendor’s perceived benefits:</strong> - With the simulation, the customers are more satisfied with fewer complaints. - The consultation time and the cost of the renovation are reduced.</td>
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</table>
### IV. Case Profiles-Increasing Visibility

**Case 2. Samsung Securities**

<table>
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</tr>
</thead>
</table>
| Customers of Samsung Securities can actually go to or talk with the workers for the information of stocks. | **Increased Visibility:** One can inquire about current price through PC and transact by themselves. | **Customer’s needs for control:**
- One can transact stocks at home or at work with efficiency at lower cost.

**Customer’s relative capability:**
They have substantial level of capability in financial investment and also have transaction capability of using HTS.

**Vendor’ perceived benefits:**
- Security firms can reduce running costs by minimizing stockroom.
- The labor costs are reduced and productivity is improved. |
### IV. Case Profiles-Increasing Visibility

#### Case 3. Dell Computer

<table>
<thead>
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| Customers choose their computer specifications by accessing the Internet or are recommended for the most appropriate computer specifications through the consultation with staff. | **Increased Visibility:**  
- Customers accept the computer specifications they want through the Internet, and Dell forwards the computers conforming to these requests within 9 hours and completes its delivery to customers within 72 hours.  
It is possible that customers monitor the level of progress of the orders through the Internet. | **Customer’s needs for control:**  
- Customers should choose the computer specifications.  
- They want through the Internet and confirm the situation of delivery.  
**Customer’s relative capability:**  
Customers are capable of choosing the computer on internet and getting the necessary information for confirming the status of their orders and delivery.  
**Vendor’s perceived benefits:**  
- It is possible to sell products through the Internet.  
- It is possible to create another value-added products. |
### IV. Case Profiles-Increasing Visibility
### Case 4. Morning 365 ‘Happy Shop’ (SMS)

<table>
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<tr>
<td>-To confirm the delivery, the customers need to check their mail or access to the site.</td>
<td><strong>Increased Visibility:</strong></td>
<td><strong>Customer’s needs for control:</strong></td>
</tr>
<tr>
<td>-In case of delivery, inventory problems, difficulties in having immediate purchase through ‘Happy Shop’, it was impossible to give immediate information to the customers.</td>
<td>-The customers can quickly confirm their orders by SMS without waiting for their orders passively. -After checking the SMS, the customers can pick up the orders at ‘Happy Shop’.</td>
<td>- Customers want easy access. - When they use ‘Happy Shop,’ they want fast purchases. -Customers want to reduce their waiting time for delivery. <strong>Customer’s relative capability:</strong> N/A <strong>Vendor’s perceived benefits:</strong> -It’s possible to decrease delivery fees. -They can remind customers of orders. -Customers’ complains are decreased.</td>
</tr>
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</table>
### IV. Case Profiles-Increasing Visibility

**Case 5. Reverse Auction**

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| **Customers:** Customers could not get involved in the process for deciding the price. | **Increased Visibility:**  
- Customers join the process of deciding the price. They offer a price condition, and vendors take the offer if they like the price.  
- Many vendors offer a price to customers in free competition. If a vendor suggests a lowest price then customer gets the deal. | **Customer’s needs for control:**  
- Customers want to purchase at a very cheap price.  
- Customers want to join the process of deciding the price.  

**Customer’s relative capability:**  
Customer can join the process of deciding the price and they have capability in offering the prices that the sellers think reasonable to deal.  

**Vendor’s perceived benefits:**  
- Vendors are excluded from price decision. That’s why reverse auction is not popular in Korea as aggregate purchasing. |

**Vendors:** Vendors decided the original price and they dealt with the customers who made orders.
### IV. Case Profiles-Decreasing Visibility

**Case 6. Mobile Coupon**

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<tbody>
<tr>
<td><strong>Customers:</strong></td>
<td><strong>Decreased Visibility:</strong></td>
<td><strong>Lack of Customer’s needs for control:</strong></td>
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<tr>
<td>- Cutting the coupon from newspaper or magazines and take them to store.</td>
<td>- Mobile coupon is permanent, and can get discount every time in every products once it is downloaded.</td>
<td>Customers like easy and convenient coupon and don’t want to cut all coupons they need.</td>
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<td></td>
<td>- Customers don’t need to cut every coupon and where the discount stores are located. Just carrying the mobile phone is all the customers need.</td>
<td><strong>Lack of Customer’s relative capability:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NA.</td>
</tr>
<tr>
<td><strong>Vendors:</strong></td>
<td></td>
<td><strong>Trust in Vendor:</strong></td>
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<tr>
<td>- They have to print their discount coupons in a certain time on newspapers or magazines.</td>
<td></td>
<td>NA.</td>
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<tr>
<td>- They couldn’t perceive the customer’s detail information.</td>
<td></td>
<td><strong>Vendor’ perceived benefits:</strong></td>
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<tr>
<td></td>
<td></td>
<td>- Operators can earn the communication charge.</td>
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<td></td>
<td></td>
<td>- Manufacturers can reduce the cost of printing the paper coupons.</td>
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<td></td>
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<td>- Manufacturers can get the certain information about their customers.</td>
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### IV. Case Profiles—Decreasing Visibility

#### Case 7. Samsung Securities Wrap Account

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<tr>
<td>Customer did everything by themselves such as collecting the information and buying the stocks or selling so on. -Customers want the convenient management of properties. -They want safe and long-term profits and minimal risks. -They want to reduce the trade commissions</td>
<td><strong>Decreased Visibility:</strong> In advance, the customers set the investment conditions and apply these rules automatically with the help of the specialists and computer systems.</td>
<td><strong>Lack of Customer’s needs for control:</strong> They don’t want to do everything by themselves to invest in securities. <strong>Lack of Customer’s relative capability:</strong> The accounting specialists and computer system can help their customer setting the investment. <strong>Trust in Vendor:</strong> Clients have enough trust on the learning capacity of intelligent agents. <strong>Vendor’s perceived benefits:</strong> -They can earn regular earning by commissions. -They can structure the rule of transactions &amp; can reduce the customers’ complaints</td>
</tr>
</tbody>
</table>
## IV. Case Profiles—Decreasing Visibility

### Case 8. Dell computer (Inventory Management)

<table>
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| Dell’s stock Management used to check the amounts of orders and stocks, and completed by sending Invoice to the vendors. | **Decreased Visibility:**  
- Sharing the stock information with computer parts vendors by JIT.  
- Keeping the rate of rotating stocks in 6 days by exchanging the information of computer parts stocks.  
- Saving the costs of stocks and avoiding the delay in replenishment | **Lack of Customer’s needs for control:**  
Dell’s stock management system just confirms the orders and inventories without sending invoices.  
**Lack of Customer’s relative capability:**  
NA.  
**Trust in Vendor:**  
Dell computer maintain the long-term relationship with its vendors.  
**Vendor’ perceived benefits:**  
- Reducing the operating cost for inspection and stock management  
- Increases the power of purchaser by safe parts supply. |
### IV. Case Profiles—Decreasing Visibility
#### Case 9. Sony Ubiquitous Computing

<table>
<thead>
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</table>
| -Customers of SONY had inconvenience on working with many machines individually.  
  -Connect with one machine and one service. | **Decreased Visibility:**  
  -It (Ubiquitous computing) can increase the value of electric facilities by reducing the visibility of action in using machines.  
  -It can reduce the inconvenience to study every manual for each machine.  
  -It shortens the working time because it provides the package service. | **Lack of Customer’s needs for control:**  
Customers don’t need to work with many machines individually.  
**Lack of Customer’s relative capability:**  
Customers don’t need to have capability of working each machine. Also, These services can be used for aged people, disabled, and patients  
**Trust in Vendor:**  
Trust in not exploiting privacy information  
**Vendor’ perceived benefits:**  
Making the new profits for launching to new market. |
<table>
<thead>
<tr>
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<th><strong>Explanations</strong></th>
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</table>
| Inconvenient to purchase or order the same commodities every time like soap, washing powder, shaver, batteries, and so on. | **Decreased Visibility:** Creating a DB that analyzes the customer’s type and time for purchasing, so they can deliver without direct order of customers. | **Lack of Customer’s needs for control:** Misconception about customers’ preference on grocery shopping: Customers actually want to stand inconvenience of ordering the same products. They sometimes love to go shopping for commodities.  
**Lack of Customer’s relative capability:** NA.  
**Trust in Vendor:** The success factor of this service is that customers should have enough trust in vendor to replenish the products automatically.  
**Vendor’ perceived benefits:** They can lock in customers for grocery shopping. |
Research Model

Customer’s Relative Capability
- Information
- Transaction

Customer’s Need for control (comprehensive)

Trust in vendor

Increase of Transaction Visibility
(= Increase of Transaction costs)

Vendor’s Perceived Benefits
- Monetary
- Power
- Trust

a +
b +
c -
d +
d +
d +

a, b, c, d represent paths of influence.
### V. Discussion & Conclusion

<table>
<thead>
<tr>
<th>Path</th>
<th>Influential factor</th>
<th>Transaction Visibility change</th>
<th>Case(s)</th>
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</thead>
<tbody>
<tr>
<td>a</td>
<td>Customer’s relative capability</td>
<td>Increased</td>
<td>LG Decovil, Samsung Securities HTS, Dell direct order, Reverse Auction</td>
</tr>
<tr>
<td></td>
<td>Lack of customer’s relative capability</td>
<td>Decreased</td>
<td>Samsung securities (Wrap account), Dell computer (Inventory management system), SONY, Streamline</td>
</tr>
<tr>
<td>b</td>
<td>Customer’s needs for control</td>
<td>Increased</td>
<td>LG Decovil, Samsung Securities HTS, Dell direct order, Morning 365, Reverse Auction</td>
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<tr>
<td></td>
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<td>Decreased</td>
<td>Mobile Coupons, Samsung securities, SONY</td>
</tr>
<tr>
<td>c</td>
<td>Trust in Vendor</td>
<td>Decreased</td>
<td>Samsung securities (Wrap account), Dell computer (Inventory management system), SONY, Streamline</td>
</tr>
<tr>
<td>d</td>
<td>Vendor’s perceived benefits</td>
<td>Increased</td>
<td>All the cases in this study</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Decreased</td>
<td>Reverse Auction</td>
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Implications

1. Retailing is not displaced, but will be more important in electronic commerce.

2. There should be some considerations in interface to embrace diverse levels of users’ capabilities.

3. The concern of visibility should not be confined to the contents of information, but be extended to the structure or organization of information.