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**ITEM 5**

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**Exploring the impact of information systems (customer intelligence) on transaction costs reduction**

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**Exploring the impact of information systems (customer intelligence) on transaction costs reduction**

Customer intelligence is an organization’s knowledge of current and prospective customers. It allows anticipating and responding to the increasingly fragmented customer behavior patterns. Many studies show how the competencies of customer intelligence enable firms to build up strong competitive advantages by evolving from offering on the average to offering on the difference.

Alvin Toffler (1980) predicted knowledge-based production and demassification (replacing mass production) in the post-industrial society as the third social wave. Stan Davis (1996) coined the term mass customization. The concept of customer relationship management (CRM) emerged in the 1990s in response to customers who were becoming more informed and less loyal. It suggested encompassing and exploiting data of every facet of customer interaction. Companies had discovered that not only it costs for more to recruit a new customer than repeating business with an existing one, but also some of the existing customers are worth more worth to their businesses. The technologies of data, such as data-warehousing and data-mining, could help organizations to identify and distinguish between high-value from low-value customers.

Peppers and Rogers (1993) extended the concept to the One to One marketing, suggesting differentiating customers not just products, measuring share of customer not share of market, and developing economies of scope rather than economies of scale. Accordingly, from 1990s the customer intelligence hardware and software programs exploded. This was followed by the Internet revolution where ‘cookies’ have been deposited on customers’ computers to observe and monitor their behavior.

Knowledge has always been an economic force, but its power has leveraged by information and communication technologies (ICT) that can slice it, dice it, extrapolate it and move it around very quickly. The Internet now plays a much more efficient role in CRM structures and policies. Now, human beings constantly transmit streams of data through a variety of (wireless and mobile) channels on an unprecedented scale. Every individual transaction is monitored and recorded. On each occasion the transaction data is captured, constantly transmitted and the profile of each consumer is further enriched. The ultimate objective is to identify the relatively small percentage of customers who represent the relatively high percentage of the firm’s profits. The underlying assumption is that only valuable customers deserve relationships. The sustainable source of competitive advantages shifts to customize offer to demand by identifying high-value customers through complex information systems.

While customization is confidently a considerable competitive advantage, reducing the potential of customer intelligence technology to one-to-one marketing misses the point that, in many instances, clients do not look for personalization. Sometimes, they rather prefer to have access to standard and homogenous products that are habitually out of the reach of their purchasing power. The customers on the bottom-of-the-line (BOL) rarely look for the personalized products. All they want is to have the basic products.

The fact is that customer intelligence is not only useful for detecting valuable customers but is also worthwhile for increasing considerably a firm’s market by reducing the (transaction) costs of serving the BOM and the financially excluded customers. If customer intelligence allows evolving from a primitive “catch-all” offering which ignores peculiarities of different customer segments, it also allows deploying a valuable strategy of “catch-all the excluded from the conventional financial and banking systems” because of the lack of deposits and poor credit records. The key success factor of this revived “catch-all” strategy is the reduction of the high administrative costs of serving small transactions.

Using the information technology and customer databases for reducing transaction costs provides not only some new theoretical insights but also make a large part of the bottom of the social pyramid (Prahalad, 2009) (BOP) a profitable and sustainable market. Let us take the example of the unbanked. There are about 2.5 billion people worldwide who are excluded from the banking and financial services (Chaia et al, 2009), mainly because they represent small loans associated to the high administrative costs and the probable risks of failure (Akula, 2010, Bottomley, 1964, 1975) by the conventional institutions.

The use of information and communication technologies (ICT) could also help build network access that would in turn, ensure affordable financial services to the poor. In this regard, technology can help lower the cost of financial services and by the same token, accelerate the social integration of the economically active poor. While ICT can be used to gather customer intelligence, the expansion of financial networks is likely to empower the poor to engage in socially rewarding activities.

Serrano-Cinca and Gutierrez-Nieto (2012), claim that the efficient technology can permit the microfinance institutions (MFI) to serve profitably the excluded from financial service. They show the claim according to the long tail theory.

The scope of this paper is broader and considers all the possible economies of cost that the information systems in general and the customer intelligence in particular can provide. If the ICT enable customers to give feedback to the companies serving them, then a Smart Dialogue between organizations and clients, as a combination of data, profound analyses and investigation, can provide reliable and good quality services at lower costs. In this paper, we argue that the development of customer intelligence databases lowers the transaction cost of financial intermediation for both regionally and nationally based microcredit organizations.

For this objective, we will deal with many questions such as:

* What is the structure of the principle transaction costs in microfinance loan process?
* How much do they contribute to the overall cost?
* How can we identify those cost which are expected to be reduced considerably through customer intelligence information system?
* How can we draw lessons from other sectors, and quantify the (potential) benefits of applying BI/big data concepts, particularly financial markets and insurance, to understand potential impacts?

Overall, we believe that IS solutions would serve to reduce the risk of a given transaction, hence improving operational efficiencies, and reducing transaction costs. However, there are other elements of transaction costs, and it would be important to understand the extent to which this total transaction cost could be reduced by such information systems.

One may also need to look at suitable risk analysis models, many of which are based on Monte Carlo simulation, a technique which has seen a major revival in recent years.

Viewed from a slightly different perspective, one could examine all the ways in which data / IS can reduce transaction costs, since risk reduction is only one such method.

We would like to use the DeLone McLean model of Is success, as a starting point for examining this larger question.

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