Changes in the Enterprise. Technology in Retail Distribution as a Business Enabler. *

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Abstract

In the present economic paradigm, Retail Payments are a huge part of all the commercial transactions in the market. So, the way these transactions are done, the efficiency they have and the capacity to create new opportunities for the retailers have an important influence in the performing of the retailers. Two cases are studied in the present work in order to link the appearance of new modes of payment and the technologies that support it to their own business models and strategies. A discussion on all these issues is done giving further areas for deeper research.

Ipsa Scientia Potestas Est.
- Sir Francis Bacon. 1597.

1 Introduction

It has always been said that information is power. In the present world it is more true than ever because the birth of the Knowledge Economy. At present, huge amounts of money are paid for databases of data about the customers behavior, debt history or hobbies and interests in order to prepare marketing campaigns and personal data is kept as one of the most precious goods in the back-end systems.

The present paradigm establishes sustainable competitive advantage as the main goal of the enterprise[12], and the only way to achieve this sustainable advantage is through Information and Knowledge. But very often it is not yet enough. The fact is not if we have precious information and knowledge now, but if we have the competences and abilities to produce *new* information and *new* knowledge in order to replace the obsolete one, i.e. the one that has been also achieved by the competitors.
As states the Queen of Hearts in *Through the Looking-Glass*, "It takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!"[2] and so the enterprises have to be fast in capturing data, produce information and create knowledge.

It is clear that simply buying the information and the knowledge from the market, at market price, will not give the enterprises the advantage they need as it will be also available for everyone and *that* information and knowledge will commoditize at a fast pace. As Romer shows up with a metaphor "The paper that makes up the cup in the coffee shop is a thing. The insight that you could design small, medium, and large cups so that they all use the same size lid – that's an idea. The critical difference is that only one person can use a given amount of paper. Ideas can be used by many people

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at the same time."[15] The fact is that ideas, i.e. Knowledge and information can be used by a lot of people at the same time and the distribution costs of ideas and knowledge is steadily approaching to zero, as the ubiquitous Internet connections show. In the same way software, one of the main goods of Information Technologies, can be copied and distributed without limitation at an almost null cost.

One of the mechanisms in order to avoid the problem of free flow of information and knowledge are the Intellectual Property Rights and Patent laws. Their main objective is not just an earning from the paternity of an idea but the monopolistic situation in the start of the exploiting of the idea. This controversial issue, as appear in the work from 2002 by Romer[16], is a doubled-edge knife because if tough laws are redacted, innovation and creation can be reduced and economic growth compromised.

Finally, as it was introduced at the beginning of the work, the enterprise must implement processes and systems that enable an access to information, and its mining, that is not available for its competition. This procedures, as has been showed by some authors [9], may improve not only the actual figures of business but improve and sustain customers relationship and thus increase profitability[3].

2 Changes in Retail Payments

Retail Payments play a key point in the Economy. They allow that commercial transactions at the level of the final consumer occur. At the very beginning retailing *was* the Economy, although further development of trade converted it in just a part of it.
It has to be said that retail payments account for the most important part of the value in the global economy. As the consumer is usually at the end of the Value Chain of a product, it has to deal with all the costs and benefits underneath the product. Of course, the true value of retail commerce comes from the fact that a great volume of small transactions from the consumers sum in order to become comparable to the industry volumes that produce the goods.

Although there is no definitive division between retail and wholesale payments, retail payment systems generally have higher transaction volumes and lower average monetary values than wholesale payments systems. This work verses on payments typically classified as Retail Payments and the industry that support them, Retailing Distribution. Consumers generally use retail payments in one of the following ways:

- Purchase of Goods and Services - Payment at the time the goods or services are purchased. It includes attended (i.e., traditional retailers), unattended (e.g., vending machines), and remote purchases (e.g., Internet and telephone purchases). A variety of payment instruments may be used, including cash, check, credit, or debit cards.
- Bill Payment - Payment for previously acquired or contracted goods and services. Payment may be recurring or nonrecurring. Recurring bill payments include items such as utility, telephone, and mortgage/rent bills. Nonrecurring bills include items such as medical bills.
- P2P Payments - Payments from one consumer to another. The vast majority of consumer-to-consumer payments are conducted with checks and cash, with some transactions conducted using electronic P2P payment systems.
- Cash Withdrawals and Advances - Use of retail payment instruments to obtain cash from merchants or automated teller machines (ATM). For example, consumers can use a credit card to obtain a cash advance through an ATM or an ATM card to withdraw cash from an existing demand deposit or transaction account. Consumers can also

use personal identification number (PIN)-based debit cards to withdraw cash at an ATM or receive cash-back at some point-of-sale (PoS) locations.

The kind of goods that are related with the retail payments are of broad kinds and come from a lot of channels. They stand from grocery's to cars, passing by newspapers and services. Additionally they come from a retail shop near the home of the customer or either via mail from the other side of the world after an Internet purchase. Sometimes the goods must be transported, physically or logically through computer networks, and sometimes they are just consumed.

The main function of a retail payment system is, so, to allow the exchange of funds. Either if it is cash, cheque or credit card, the result of a payment is that the goods provider gets some additional funds and the consumer gives some of them. The amount of the funds exchanged may not be the same. In some situations the retail payment system provider keeps some of the funds given by the consumer as a payment for the system providing services. In other situations the payment system provider acts also as financial provider and the full amount of the payment is given by it, expecting the consumer pay the amount and a plus as in a credit or loan.
So, for personal customers the key functions of a financial services provider in a broad sense is not just substitute cash but facilitate saving, borrowing and money transmission.

The delivery of personal financial services evolved through remote channels that have a broad implementation in society, via the Automated Teller Machines, Telephone Banking and in the last decade in Internet Banking. These initiatives are further developed as to provide them even in the Point of Sale. This Retail Financials enabled by the new technologies further demonstrate that essentially the financial services industry is about selecting, analyzing and disseminating information and that financial services providers have as their prime asset, information about their customers. This information then can be used to maintain and enhance relationships with these customers and to thus hopefully retain their patronage, whilst effective use of the available distribution channels can be used to develop new customers[19].

This situation produces changes in the Value Chain of retailing. If in the previous times the main Retail Payment objective finished once the transaction was completed, the banks now face a considerable competitive threat from retailers. Retail organizations are increasingly important business enterprises in their domestic economies and increasingly international in their operations. Retail organizations have become increasingly sophisticated in their marketing strategy. Information technology systems have provided them with the means to introduce bank facilities which they would not have been able to implement until relatively recently. Organizational growth has given them the ability and reputation to address customer banking needs, while operational and technological developments have given them the capability to deliver those banking needs.

This is producing deep changes in the triadic relationship between customers, retailers and banks. These movements in the value chain by the retailers, the ability for customers to choose between a broad number of alternatives, thanks to competition in retail industry and powerful information sources like Internet as well as the commoditizing of the banking products, has increased the ability for retailers to respond to financial service opportunities at their own point of sale[1].

All these configuration changes in the activities done by retailers, as well as the reduction of operational costs in the management of transactions, like ordering, selling or payment, have contributed to a positive perception by retailer changes in performance[5] that have made them to be more confident in deploying new and broader systems that improve again all the operational productivity.

This perception of better performance in operations is additionally influenced by the fact that the mode of payment is found to influence the process of buying. Of course, in the case of financial services, they appear as enablers of a transaction that otherwise would not have happened. But in some studies the mode of payment is demonstrated to influence also the consumer perception of the price[11]. This perception deeply influences the final decision of the consumer to finally buy the sold good. These two cases support the idea for the retailer that the offer of different modes of payment positively influence the results.

All these show that retail organizations are reducing the interaction and communication that banks have with their customers. Relationship marketing theory is then used to understand the implications that these scenarios pose for banks. The second analysis is at the business-to-business level. The application of the concept of relationship marketing at this level suggests that banks and retail organizations should focus on co-operation rather than competition. Strategic alliances are proposed to enable both parties to achieve more together than individually[4].

To end with, it can not be left aside the appearing in the last decade of some new modes of payment intended mainly to be suitable for the virtual environment of the ICT networks. It is the case of PayPal or other modes that operate only in the virtual world. This modes of payment are very important because team up with the other classic modes in empowering the exchange of pure Knowledge Economy products through the communication networks[7].

These products include, as was mentioned in the introduction, digital-like products as software, music, films, documents or even data or services. Notwithstanding there are also online retailing shops that also support this new modes in order to give more convenience to the online customers. The fact that these products may be exchanged without a coincidence in space and time by the seller and the buyer influences the nature of the transaction in a way that a new mode of payment may be easily introduced in order to increase the efficiency of it. Of course, as has been said before, these new methods of payment compete even with the classic ones that also allow the Electronic Funds Transfer, like credit cards or electronic banking.

An special mention has to be done to another set of payments that in a way or another include the Mobile Phone. There have been a great effort to trial new modes of payment based in the mobile platform and infrastructure[10].

These initiatives have found a lot of difficulties in their roll out. Basically the great investments and the fact that the expected benefits would not amortize them in a brief time have prevented the technology to achieve a broad penetration. Anyhow, changes in the stakeholders of such deployments and in the strategy and business cases involved would make this new mode of payment more appealing[17].

3 Case Study

In the present work we are having a look to two examples of use of payment applications and ICT in retailing in order to find new business models and processes first to maximize the benefits from the customers and secondly to increase the number of purchases.
In the first case, a department stores born company, that evolved in different new branches as

supermarkets, travel agency, computers systems and real estate, called *El Corte Inglés* that also introduced the first credit card in Spain in 1968, and now is able to mine all the data in order to improve its marketing campaigns.
In the second one, a retail distribution giant, *Carrefour*, is analyzed in its strategies in order to increase its stake moving along the Value Chain through Retail Payments and Financial Products.

3.1 El Corte Inglés

El Corte Inglés (*ECI*) launched its own Credit Card in 1968, even before the entrance of the international brand Visa in Spain. This shows the early compromise of this department store with the innovative modes of payment in order to increase the revenue per customer increasing their loaning capability. Additionally it improved the strategical targeting of *ECI* to a customer segment of mid-upper class. This card is of the type Closed-Loop [18] so the platform is managed by a single company, which signs all contracts directly with cardholders and merchants.

Notwithstanding it was not the only way *ECI* benefit of its pioneering step of launching its own credit card. The *ECI* stores are conceived as departments stores and its organization is deployed according to this concept. Fair competition is boosted by the general management in order to some departments compete with other in the same building and income of the workers and managers depend on their own individual performance. There is a cash point in each of the departments to pay the goods acquired in each department and continue shopping. The philosophy of each vendor accompanying the customer from the beginning to the end of the purchase is followed and so competition between vendors is also incentived. This contributes to retail payment information be segmented accordingly and giving each department the information they need in order to manage it. But additionally information is collected in a mainframe [8] and can be mined to give the general management the possibility to take decisions strategically.

The fact that the data collected by the credit card belonged to the distribution company allowed the use and mining of this data to prepare new marketing campaigns in order to offer the suitable product to the suitable customer[8]. One of the examples is the preparation of a marketing campaign of oriental rugs. The company has the possibility to send a mailing campaign to everyone of its customers, but mailing is costly, so a universal campaign would not fit their needs. One way of segmenting its own customers is looking for those that have previously bought something related to the product that may be offered. For instance, oriental rugs may be mainly bought by people owning a house of big dimensions. People that own such houses may also buy pool products. So one way to solve the question, to give more profitability to the mailing campaign, is to address it to customers that previously have bought some pool maintaining products.

It is clear that to operate in such a way the only form of doing it is having this information available. One can go to the market and buy big databases of personal data in order to have the same effect, but, first, it can be very costly and, second, people can see it as an intrusion in their personal life and, so, provoke aversion to the brand.

One of the main indicators of the triumph of the *ECI* strategy is that it is the main Credit Card issuer of the country. That is true even after the entrance in the market of the main competitors VISA and MasterCard. The big deal with convenience and no maintenance cost for the user as in the other issuers are also to play a role in this advantage. Additionally, *ECI* established in 1996 a financial branch whose that same year ranked first in the establishment of credit with a 26% of market share in Spain[13].

On the other hand, the fact of having its own mode of payment also allowed *ECI* to leaderate the online market. As the figures for the year 2005 show [6] *ECI* is the leader in online retail distribution and not only the same model of mid-upper class targeting works, as indicates the fact that the 20% of the customers state an income over 2.400 euro, but also they leaderate in a segment of what would be called the Late Majority in the Rogers Adoption of Innovation curve [14], as indicates the fact that almost one in every four of their customers do not usually buy online. That may be related with a greater security perception of the mode of payment in the case of *ECI*, although more research would have to be done in order to relate this facts.

3.2 Carrefour

Carrefour, as *El Corte Inglés*, launched its own Closed-Loop Credit Card, called Pass, a long time ago also. Additionally it has launched a Visa Pass Card that is accepted in all the Visa accepting shops and also has the functionality of the *Carrefour* Pass card. Although it does not represent having information of all the shopping behavior of the customer because this may be sensible information controlled by the issuer Visa, it gives more convenience to the customer as the card is more suitable for taking it everywhere and not only to the *Carrefour* stores.

The case of *Carrefour* is a bit different from the *ECI* one. *Carrefour* is a distribution giant that along with hypermarkets, owns supermarkets and convenience shops. So, no departmental use of the information collected by its card is performed. Notwithstanding, and although there are no references about the use of the information collected, it is sure that a mining of this precious information is done.

Thus the case of *Carrefour* is important by the strong use of the ICT in order to offer to its customers financial products at the point of sale and stores. These products are of a broad type: personal loans, payment cards, mortgage loans, money transfers and investment funds. These activities would not be possible without the work in partnership with a financial actor that knows the market, at least in Spain, where the legal form of Financial Establishment of Credit is mainly used by non-financial institutions in order to market financial products[13]. *Carrefour* has also taking profit of the opportunity to sell cars when legislation allowed the existence of the multi-brand car selling stores, and so, offering financial products in order to make the purchases by the customers.

ICT are important in the case of *Carrefour* because the only way to manage such a broad portfolio of products of complex nature is through fast and efficient connections between stores and main headquarters and between them and the financial partner that provides the knowledge of the market and the product[1]. Additionally, is of great importance for the retailing company to have information of the credit and debt history of the customer so the possibility to check the Credit Card history on the fly is an added value.

One of the most recent and fast growth products sold by the retailer is the corresponding to money transfers. In Spain there has been a big growth in immigrants in society, reaching the 10% of the population. *Carrefour* is characterized, in contrast to *ECI* to target the budget customer. The match is almost perfect and the convenience of the long opening hours of the stores along with the fact that they must be visited once a month contribute to the high profitability and good performance of the product since its establishing in 2004[13].

4 Conclusion

In the present work a deep look have been taken to the insights of retail payments modes technologies and models in order to understand the general implications for the parties involved. The main fact is that retail payments evolve in time and that they represent different levels of convenience for the users. By the part of the retailers, they represent an opportunity to take profit from the information generated by the different purchases. For *El Corte Inglés* this is already a reality that gives a better performance to the marketing campaigns reducing its costs incrementing the effectiveness.

These modes of payment, along with the ICT technologies that support and complement it, also bring the opportunity to the retailers to perform well in the offering of financial products at the point of sale, creating the confidence to the customer in order to the retailer to offer other kind of financial products, as is the case of money transfer for *Carrefour*.

As issues for further research would be interesting to check whether the brand reputation benefits from the existence of own modes of payment from the retailer and in the reverse way, how the trust in a mode of payment benefits from the fact that comes from a trusted brand.
Additionally, an interesting work would be to firmly state the fact that new modes of retail payment increase the average revenue per customer by increasing their loaning capability and that retail modes of payment increase the fidelity of the customers to the retail brand.

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