

Emerging Industrial Structures in the Digital Economy – the Case of the Financial Industry

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Abstract

The developments of the Digital Economy will have a fundamental impact on structures and processes of economic systems. The paper first outlines the general deriving challenges applying them then to the financial industry and especially the retail banking sector. Based on this analysis the concept of a virtual bank is developed as a typical new intermediary in the financial industry.

Introduction

The development of doing business supported by information and communication technologies (ICT) can be assessed from two different perspectives. Electronic Commerce, perceived as the utilization of the Net and its services for additional communication, marketing, and sales channels based on only very moderately changed business models, indicates an evolutionary path of development. Besides this, there is also a more revolutionary element to be observed. The new information and communication infrastructures building the basis for the current Electronic Commerce developments will have a more extensive impact on businesses beyond channel enhancements. Zona Research summarizes these trends as follows: „*The first wave points to how companies save money by publishing on the Web, the second wave gives enterprises the ability to profit from online sales, and the third wave will re-intermediate buyers and sellers by creating new places on the Internet to meet, buy, and sell goods and services.*“ [7]. These described evolvments will radically change processes and structures within industries - and thus transforming them - finally leading to the Digital Economy.

In this paper, we analyze the general challenges arising from the Digital Economy illustrated by the example of the financial industry.

Challenges Arising from the Digital Economy

„*A fundamental shift in the economics of information is under way - a shift that is less about any specific new technology than about the fact that a new behaviour is reaching critical mass.*“ [1].

We consider an economy based on the digitization of information and the respective information and communi-

cation infrastructure as Digital Economy. This new form of an economy implies not only technological, but also and especially process-related and structural challenges and potentials. The way in which economic values are created will change fundamentally in the Digital Economy and thus transform the general structure of economies and societies.

The utilization of new information and communication technologies (ICT) is changing the way we communicate, organize work and companies, or do business and create values in general. When analyzing the current situation we observe different developments: An ever growing utilization of networks and network services in businesses and households; ongoing globalization, e.g., of procurement and sales activities; decomposition of products, e.g., in the music or publishing industry; mass customization; concentration on core competencies; modularization of businesses; break-up of traditional value chains and emerging value webs (dis-intermediation); re-intermediation, e.g., the emergence of new types of intermediaries like portal sites or virtual banks; emerging new and reconfigured products, e.g., in the music, publishing, or financial business; new services, e.g. payment-, logistics-, or trust-services; new technical platforms; blurring gap between consumers and producers (‘prosumption’ and ‘prosumer’), ‘shift of power’ towards customers, e.g., due to an increasing transparency in ubiquitous electronic markets, customer oriented focus instead of product focus, and emerging virtual (business) communities.

All these developments briefly outlined above, result in new challenges for the management of value creation in general. The significance of these developments is obvious, e.g., in financial markets, and gives us an idea about what lies ahead. Financial markets nowadays are global markets and totally determined and shaped by ICT. The banking industry was one of the very first ones to utilize means of ICT back in the 1960's. It was predestined due to the immateriality of the business. Another industry to look at in this context is, for example, the tourism and travel industry, where the utilization of ICT too has a long standing tradition and which has been transformed based on ICT means in recent years [2], [5]. The music- and the publishing industry are further industries worth looking at that have become under pressure only recently as a clear consequence of the development of the Net.

A Case From the Financial Industry

The Financial Industry in the Digital Economy

The financial industry as we know it today is mainly based on ICT means concerning its processes, structures, products and channels of interaction. It would not work at all without a perfect running global information and communication infrastructure. In this paper we focus on the retail banking industry.

Especially in information intensive industries like the financial industry, the fundamental changes of the basic business models can be described very clearly and convincingly [1]. Based on the evolvement described above in the financial industry one can observe (a) a general disintegration of traditional value chains, (b) at the same time a re-intermediation, resulting (c) in emerging new intermediaries as important elements of (d) emerging value webs [6] and (e) a shift towards customer oriented service bundling as well. We will illustrate this in analyzing the retail banking as an example for the necessary transformation of traditional business models and beyond this, the development of completely new business models.

Other interesting cases to analyze this phenomenon are, for example, the music business or publishing companies where traditional products like newspapers or music CDs get increasingly de-composed into their basic elements, which then can be re-configured in a different context and marketed as new products or services.

Traditional Business Models

Traditionally the retail banking business is founded on a long-term relationship between the bank and its customers. In Europe, a checking account constitutes the foundation for a business relationship. Even if the checking accounts are often not profitable for the bank, they build the basis for all cross selling activities in the sense of a 'one-stop-shop' philosophy ('*Allfinanz*'). Therefore many European banks have the defined strategy to be able to produce (nearly) all services within their own company or group. In order to achieve this goals banks, e.g. in Switzerland, are buying other, (specialized) companies from the financial industry like investment banks or insurance companies.

The bank offers its product portfolio to its customers through available multiple distribution channels, which are traditional teller counters, ATMs, and electronic banking, all owned and operated by the bank. Consequently, the customer relationship based on the checking account is a very important cornerstone for the business model in traditional retail banking at least in Europe.

Future Business Models

In the future, retail customers will be able to access all relevant financial data and services around the world from

their home or office. They either (1) browse the Internet, e.g., in order to retrieve latest market information or to sell, buy, or trade stocks, (2) use their personal financial management software, like MS Money or Intuit Quicken, or (3) even access the bank's information system through proprietary channels. This will cause two different developments.

On one hand the customers will have more 'power' because they will be able to access sources on their own which were not accessible for them before without the involvement of the customer's bank. For example, customers may take up a loan, make an investment, pay their bills, or buy stocks through direct channels using the Internet. Customers gain more information transparency than they ever had before and they are no longer dependent on their bank to get necessary information or to obtain a service. This means a deconstruction of established value chains.

On the other hand customers will obviously be burdened by the huge amount of data and information which will be available and which has to be analyzed and applied to the customer's needs. Therefore, new kinds of intermediaries will offer their services to assist the customers in designing the appropriate bundle of services according to their respective needs. These new intermediaries will be the interface of a value web to the customer and therefore they will become a crucial factor for new business communities.

Virtual Banks as New Financial Intermediaries

The concept of a virtual bank is one whose development is very evident in the US and in Europe. The term virtual bank in this context is related to virtual organizations as a structure to generate economic values. While the traditional financial industry is characterized by structures of huge, but often inflexible and multi-national companies, the new intermediaries are rather lean and flexible organizations. They are mostly based on virtual structures and thus are able to respond to market developments and customers demands much more quickly. Virtual banks are to be considered typical intermediaries as described in [4].

The virtual bank in this context constitutes a financial intermediary within an electronic environment like, e.g., an Electronic Market. It offers financial services to customers in the sense of a 'real' bank but without producing the offered services itself. Thus, the virtual bank has to be considered a mediator between a group of financial service providers (the 'product factories') and the customer. Necessary key competencies in this context are, among others, (a) the ability to gain detailed knowledge about the customer, (b) the ability of appropriate customer interaction (technologically and organizationally), (c) the availability of suppliers which are able to produce and deliver services on request, (d) the ability of managing a network

of suppliers, and (e) the ability to bundle different modules provided by different suppliers in order to compose a service package for individual customers based on their needs.

A typical individualized package in the retail banking business could be composed of a saving- and a checking account, a loan, credit cards, life insurance, and a portfolio of different investments. While on the one end a typical European universal bank will offer these services based on their own products, the virtual bank is able to combine service modules from different suppliers in order to create a solution that maximizes the customer's satisfaction.

Right now there are already several companies which have developed in recent years covering with their activities at least parts of the above described scenario of a virtual bank. Table 1 shows some of the existing new financial intermediaries on the Net. All mentioned examples have a different background, motivation, strategy, and path of development, which cannot analyzed here.

Company (URL)	Remarks
Quicken.com (www.quicken.com)	Portal site for financial services.
Advance Bank (www.advance-bank.de)	Virtual bank in Germany founded in 1996; offers all typical bank services only via the Net ; services are produced through a group of partners.
MLP Bank (www.mlp.de)	Virtual bank in Germany founded 1997; offers all typical bank services through a network of existing branches and consultants of the mother company; services are produced through a group of partners.
GetSmart (www.getsmart.com)	GetSmart mediates financial services (from credit cards to mortgages) from different suppliers.
InsWeb (www.insweb.com)	InsWeb mediates insurance services from different suppliers.

Table 1: Examples for new financial intermediaries

Conclusions

The developments briefly outlined above result in a reconstruction of the traditional value chains in the financial industry as value webs and require fundamentally new business models. Within future business communities three basic roles can be identified beside the customer that are necessary to create economic values: (1) the intermediary owning and managing the customer relationship [3], (2) the product provider (product factory) in order to produce the goods and services which satisfy the needs, and (3) the platform provider in order to provide a technical platform to enable business transaction utilizing information and telecommunication infrastructures.

The intermediary owning and managing the customer relationship, e.g., the new financial intermediaries, will

play an essential role in the Digital Economy. Product and platform providers will not have a direct relationship to customers within the business community and thus will not be able to offer adequate and individualized products and services on their own. In the traditional banking industry banks today comprise all three roles while the new intermediaries concentrate on one or two roles. Very often, they take over the customer relationship from banks that are reduced to product providers. Therefore, banks have to decide on a strategic level which role(s) they wish to play in the Digital Economy. Based on this decision an adequate strategy has to be chosen, e.g., setting up a 'portal' or reducing its business to a product factory. Both extremes have a clear impact on the management of the customer relationship as well.

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